THE IMPACT OF BIOTECHNOLOGY, INTELLECTUAL PROPERTY RIGHTS AND NAFTA ON SELECTED ECONOMIES OF THE AMERICAS

by

Sandra S. Awang

A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
Graduate Department of Education
University of Toronto

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0-612-27873-5
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Abstract

This thesis engages with contemporary transnationalisation of the Americas. As such, the work brings together a number of related phenomena for examination. Specifically, the study looks at how mechanisms such as NAFTA, biotechnology and intellectual property rights operate on behalf of international capital to pry open economies in the Americas. The work focuses on selected economies to draw attention to how appropriation of the resources of specific countries is being mediated through these instruments. Through an analysis of events occurring primarily in the South and in the South of the North, I call attention to distinct eventualities in all countries of the Americas.

The central argument of the thesis is that NAFTA aims to accelerate uncontested access to the resources of the South. NAFTA seeks to transform the Americas into a vast trade zone
to bolster USA hegemony. Using access to its markets as a bargaining tool, the USA has mandated that indebted countries of the South change their constitutions as a pre-condition for accession into NAFTA. These changes make it "legal" for transnationals (TNCs) to acquire large tracts of land in the South. Some of these tracts have been traditionally held and controlled by Indigenous Nations. How this transformation in land ownership is impacting on Indigenous Peoples is evidenced by the events in Chiapas, Mexico.

The NAFTA agenda endows TNCs with a "corporate bill of rights". Indeed, the adoption of intellectual property rights (a concept of ownership pioneered by some of the most powerful transnationals in the USA) by economies in the Americas, illustrates this. Intellectual property rights allow for corporate ownership of the resources of the South. How this construct is being applied to claim and commercialise the genetic resources of Indigenous Nations is scrutinised within this study.

The South has been forced by the World Bank and the International Monetary Fund (WB/IMF) to adopt biotechnology as the new paradigm of development. Biotechnology exhibits linkages with eugenics and the social control of the oppressed and "unfit". Further, the genetic paradigm, resting on the mythology of "engineering" as opposed to the more accurate tinkering, has been exposed as being flawed, imprecise and unpredictable. Yet, the "hoax" of the promise of biotechnology continues to be thrust on the South in the latest scheme to heighten and maintain the tremendous drain of resources from South to North, perhaps, in a calculated move to, in this instance, create surplus populations which may have to be "policed" through the new triangle of authority emerging between the WB/IMF and the World Trade Organisation. Biotechnology offers the promise of tremendous profits to TNCs. Moreover,
biotechnology has created the possibility for TNCs to colonise elemental areas governing the survival of communities - food, water and life, itself. Coincidentally, as TNCs ransack and appropriate medicines from the forests, water and food security in the South become remote in degrading environments.

NAFTA is a project of conquest and territorial control. Initially, the resources of Indigenous Nations and countries of the South are the targets. To assist this realisation, further colonisation of Canada is being achieved through corporate capital domiciled in the USA. How deeper colonisation of Canada is crucial to resource appropriation in the Americas is considered in some detail within this project which engages with the agenda of the Agreement for the Americas.
Acknowledgements

I could not have produced this work without the generous assistance extended toward me by many individuals. My family has steadfastly supported me right up to the period that the thesis has come into fruition. For their unreserved patience, understanding, encouragement and material assistance, I thank my father, Carlton L. Sankarsingh; my mother, Violet V. Hinds; my sister, Patsy and my brothers, Wayne and Dave. I especially single out my mother for her role played as a surrogate mother to my daughter, Zahra on numerous occasions. During the course of research and writing, it was common for my mother to assume primary responsibility to ensure that both Zahra and I ate home-cooked meals. It goes without saying that I owe a tremendous debt to my mother. To Zahra, who is thrilled to know that the thesis is finally finished, I express heartfelt thanks to a patient child. The times have been many when the work has taken precedence. As such, I dedicate this thesis to you in the hope that, taking into account the urgency of the topics addressed within the context of the study, you will come to understand the moral imperative of struggle. To my partner and friend, Selwyn, who has been a tower of strength, always tirelessly urging me forward, assisting with editing, critiquing and technical challenges on the computer, I thank you. Your selflessness has been critical to the completion of this project.

I gratefully acknowledge the intellectual and moral support of my supervisor, George J. Sefa Dei, who has worked with me throughout to construct and refine this work. George Dei has been unswerving in his assistance, patiently re-reading, advising and offering critiques. One of the outstanding features of our working relationship has been its harmonious nature. This has
been an important factor contributing to how the work has developed. I express my sincere appreciation to a supervisor to whom I owe a great debt.

The members of my committee have been influential in helping me shape this academic project. I recognise and acknowledge the contributions and encouragement of Budd Hall, Edward Sullivan and Jack Wayne. Budd Hall’s resonance with the work, in particular, has contributed significantly to taking the thesis to its conclusion. I offer my appreciation. Finally, I thank my external appraiser, Edward Jackson, for his inciteful, thorough and penetrating perspectives on the study. I appreciate the suggestions and critiques which you have offered.

There are many individuals too numerous to name whose assistance must also be acknowledged. I must recognise also those who have gone before me who have made it possible for me to be here today. Among those, I name my grandmother, Fredericka Victoria Hinds and my great-great grandmother, Queen Elizabeth Walker. This work is theirs if it is mine. Finally, this document is intended to be used as a tool by the Peoples of the South. In asserting thus, I acknowledge the initiatives of the Peoples of the South, themselves, and the strength these struggles have given to me to undertake this assignment.
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Chapter 1

The Struggle Is For The Land

1.1. The Relevance of the Topic

The United States does not now possess, nor has it ever had, a legitimate right to occupancy in at least half the territory it claims as its own on this continent. It began its existence as an outlaw state and, given the nature of its expansion to its present size, it has adamantly remained so through to the present moment... its legal scholars and its legislations have persistently and often quite eagerly manipulated and deformed accepted and sound legal principles, both internationally and domestically. They have done so in precisely the same fashion, and on the same basis, as the Nazi leaders. They stood at the forefront in condemning for Crimes Against Humanity at Nuremberg... because of its past achievements in consolidating its position on other peoples' land in North America, the United States may well continue to succeed where the Nazis failed... It now possesses the capacity to extend essentially the same sort of relationships it has already imposed upon American Indians to the remainder of the world... nothing can be more central than the restoration of indigenous land and indigenous national rights in the fullest sense of the term... The U.S. must be driven from North America. In its stead resides the possibility, likely the only possibility, of a truly just and liberatory future for all humanity (Churchill, 1992: 61-63).

Coming on the heels of the Free Trade Agreement (FTA) between Canada and the USA, which went into effect on 1 January, 1989, the North American Free Trade Agreement (NAFTA) of 1 January 1994 established a foundation from which USA empire-building might proceed in the Americas. The two thousand page NAFTA text outlines a grand scheme designed to lock countries of the Americas - South, Central, the Caribbean and Mexico - into a borderless Free Trade Zone dominated by the USA. The NAFTA vision is nothing less than

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1 An accession clause allows for other countries of the South to join the NAFTA bloc at a later time provided that they have eliminated impediments to trade, have a structural adjustment program in place and, further, have amended their laws to include intellectual property rights legislation.

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complete dominance of all of the Americas by the USA as it contests for global hegemony, given the collapse of the Soviet Union and the reorganisation of the European Union (EU). Implicit in this USA-driven initiative, sustained through corporate avariciousness and WB/IMF conditionalities is, I argue, the compelling interest, woven into the fabric of the Agreement. **This is the appropriation of the land bases and genetic resources of all nations of Indigenous Peoples on the American continent and, ultimately, the appropriation of the resources and biodiversity of the entire Americas.**

Toward this end, NAFTA has been created, governed by the time-honoured sophistry of job and wealth creation. This camouflage, however, allows for the privatisation of communities, Nations and countries to proceed in a gambit dubbed “free trade”. As the case of Chiapas, Mexico, demonstrates, the Indigenous Peoples are the first to experience the savagery of this deal which seeks to annex the land collectively held for centuries by Nations, making it available, as if it were “free”, to transnational giants. Many of the corporations which have migrated or intend to establish subsidiaries in the Caribbean, Mexico and South and Central America have “cut their teeth” in the USA and Canada, where, as the historical record attests, they have waged ecocide² and genocide against the American and Canadian Natives (Churchill, 1992). Aided by the governments of the United States and Canada, industries have generally sought to exploit the resources of First Nations inhabitants with little concern for the impact on the land nor the implications of their colonising thrust on the survival of ancient communities. Bolstered by military might and the debilitating impact of the deliberate introduction of diseases

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² Churchill defines ecocide as the “deliberate extermination of natural habitat as a matter of state policy”. The assault on the VietNamese people is a compelling example of USA-enforced ecocide. Chemical and biological warfare was fully unleashed as part of the policy of ecocide.
on populations, both the USA and Canada have seemed to be on a course leading to the eventual decimation of the Native Peoples (Churchill, 1992: 47, 333). The US “policy of extermination” leading to massacres, forced removal and “relocation” of Indigenous Peoples inspired Adolph Hitler’s “politics of living space”, justifying, on account of imaginary cultural and racial superiority, German appropriation of land (Churchill, 1992:8). NAFTA is the new arsenal for territorial annexation. While the state of siege, under which Indigenous Nations in Canada and the USA live, continues, there is, in the contemporary period, a naked bid to capture the spectacular resources - land, food, water, DNA, medicine and knowledge - of some 40 million Native Peoples belonging to an estimated 589 Nations in the Americas. Ownership of the resources of the entire Americas will indeed shore up a faltering economy in the USA. More importantly, the acquisition of the immeasurable resources of food, medicine and human tissues of Indigenous Nations assures the global entrenchment of a patriarchal, scientific, capitalist model of development predicated, in this historical conjuncture, on biotechnology, disease-creation and the attempt to replicate life itself. The South of the Americas - Mexico, the Caribbean, Central and South America, and the land bases of the Indigenous Peoples of the North - are of immense significance to the successful implementation of the NAFTA agenda, as forwarded. Conjured as vast territories of “frontier” land peopled in the main by Indigenous, African, Mestizo and poor inhabitants, the resources of the South are coveted for the same compelling reasons governing US settler policy toward the First Nations Peoples, as the European new comers raped the earth. Grim historical accounts remind us, however, of the death and devastation introduced into the Americas on account of this predatory assault. In the 1800’s, as the trees continued to be felled and the animals destroyed by colonists in the USA,
Nations disappeared or dwindled in numbers - the Wampanoags of Massasoit, the Chesapeakes, the Chickahominys and the Potomacs "vanished". The Pequots, Montauks, Nanticokes, Machapungas, Catawbas, Cheraws, Miamis, Hurons, Eries, Mohawks, Senecas and Mohegans were scattered or greatly reduced. Indigenous Peoples died from hunger, cold and introduced diseases, having been forcibly removed from their land and shunted into marches of "relocation". As one example, it is recorded that on the Cherokee "Trail of Tears", one in every four persons died (Brown, 1970:7). NAFTA is the harbinger of landlessness, suffering and the desecration of the earth in ways powerfully reminiscent of the decimation of the Indigenous Americas. For Indigenous Peoples, in particular, this phase on earth has been prophetically foretold. On 1 January, 1994, the Peoples of Chiapas, Mexico, dramatically signalled to the world the inauguration of this historic event. Their contestation of NAFTA is interlinked with their commitment to preserve stewardship over their land. Business, however, continues, as usual. The early capture of the Canadian economy as a primary colonial outpost in the Manifest Destiny\(^3\) of NAFTA has been strategic as it has been essential. The basis for the "selectivity" extended by the USA towards Canada, a developed industrialised country, is the extensive nature of resources located on territory belonging to Indigenous Peoples. To access these resources, the USA has constructed NAFTA to allow for the "legal" colonisation of Canada. In this way, coveted abundant resources such as water, can be diverted to the USA by Canada, which itself, has taken the oppression of communities of the South in the North, to a high art. The unquenchable thirst governing the urge to colonise the "frontier" of the South exists today, unsatiated by the profits of the past. This reason is the framework

\(^3\) See Brown, 1970, page 9 for an explication of Manifest Destiny.
on which NAFTA has been constructed, and, as I demonstrate in my undertaking, is the force behind which the agreement is proceeding. History has come full circle. Now, as then, in the prophetic words of Ward Churchill (1992), the struggle is for the land.

1.2. Statement Of The Research Question

Events have conspired in this historical phase in time to bring the Americas together. In an earlier cyclical phase in the unfolding of time, oral history records that the continent existed as a unified landmass, peopled by the original curators of the earth who could choose to move freely as Nations. From a Western world view, the Americas stands poised to exist, theoretically, as a giant market place. In a bizarre replication of events, the potential conquest, enslavement and decimation of human beings is being ushered in with the market place vision of NAFTA. In this round of oppression which, contradictorily, brings the Peoples of the continent into one unified Americas from which to draw strength to fuel the struggle, the model of NAFTA is in its ascendancy. The coming together of the continent, however, is not accidental. It occasions the unification of forcibly separated Peoples, the basis from which to reject the furtherance of events. This study looks at the impact of the thirst for the resources of the Americas as it is being mediated through mechanisms such as NAFTA, biotechnology and intellectual property rights in countries of the continent. It is a predictive piece of work which forecasts what is likely to occur in countries in the South and in communities of the South in the North. Overall, the intent is, to draw attention, gauging from events tied to globalisation and transnationalisation, to distinct eventualities. This moment allows for the engagement of a united front against the oppressiveness of NAFTA and the developmental models of the past,
themselves inherently racist towards Peoples of the South. Therefore, in an historic moment, it allows for the consolidation of international, coordinated struggle between all Peoples of the South. After centuries of plunder, significant stretches of biodiversity continue to be guarded, at considerable risk, by certain inhabitants of the South. It is for this reason that the Peoples of the South, particularly Indigenous Nations, are being targeted.

Stretching from Port of Anchorage to Tierra Del Fuego is the designated land which has been selected to constitute the territory governed under NAFTA, which, itself, seeks to subsume numerous territories into one marketplace. As such, the net of discussion is cast throughout the Americas. NAFTA seeks to appropriate the resources of all of the Americas. The Agreement requires that all countries undertake similar structural adjustments to their economies. The deal has been constructed as one plan for the Americas. Hence, the discussion draws on the plan for the Americas to ground what emerges within the larger overall context.

What this approach makes visible is the rapidity with which the regions of Mexico, Central and South America and the Caribbean are being transformed into a land mass of misery unaffected by borders, uncontained by sovereignty. Indeed, the onset of a tide of environmental refugees is already evident in Mexico, only two years after gaining NAFTA membership. The progression of events leading to this current crisis has occurred in a structurally adjusted economy where agriculture has been decimated as surplus extraction and land appropriation intensify. There is much to draw on from the devastation of Mexico socially, economically and environmentally, to predict imminent transformations within the context of other countries. Bringing issues to the fore which link back to the preparing of the South for NAFTA membership sheds light on the program of transnationalisation of the Americas and the bid for
its resources. In this regard, therefore, this study raises questions surrounding Indigenous self-determination in the Americas, the right to life and the etching out of cartographies of resistance. Relatedly, it is an interrogation and critique of biotechnology, the new developmental paradigm, which is being wielded to subjugate the South and communities of the South in the North.

1.3. NAFTA: New Arsenal For Territorial Annexation

Free Trade agreements are minimally concerned with the “freeing up” of trade. The Canada-US Free Trade Agreement (FTA) is a case in point. Before the FTA was signed, 80% of Canadian exports entered the US duty free. Some 10% of exports, further, faced barriers of less than 5% (Ecumenical Coalition for Economic Justice, 1994). Free Trade Agreements have been constructed as tools for transnationalisation of the globe. As such, they function to bolster capital in the North to the continuous detriment of the South. Outstandingly, NAFTA has been specifically formulated to generate faster, uncontested access to the resources of the South. The intent of NAFTA is to transform the Americas into a vast trade zone, to bolster US hegemony. To prepare the Americas for economic integration, the US government has followed the prompting of megacorporations, imposing common rules of participation on all countries aspiring for membership. These rules which, it is argued, serve to eliminate restrictions to investment, use the lever of national debt, to force governments to adopt procedures which facilitate the transnationalisation of economies in the South. To ensure that the interests of transnationals are met and that governments’ hands are tied in their treatment of foreign investors, “new themes” have been included in NAFTA. Using access to its markets as a bargaining tool, the US has pressured countries to implement changes to their constitution, as
has occurred in Mexico, for example. Of significance to this study, countries in the South have changed their laws on land ownership and patents and copyrights, as preparation for accession into NAFTA. With respect to land, foreigners and transnationals are now able to acquire large tracts which were formerly held communally by Native Peoples. This has been the case in Mexico, Brazil and Guyana, to give some examples. With respect to the latter, countries of the South have adopted a concept of ownership pioneered by some of the most powerful TNCs in the US. The adoption of intellectual property rights in order to participate in what is sold as “free trade” reveals the governing logic of NAFTA—

the new deals are nothing short of a “corporate bill of rights” binding all governments to stand back and let transnational capital roam their countries in its constant pursuit of higher profit margins, lower wages, lower environmental and safety standards, and cheaper raw resources (Ecumenical Coalition for Economic Justice, 1994).

The supporters of free trade are quick to suggest that the profits accrued from transnationalisation of the globe allow for indebted countries in the South to progress toward “development”. Indigenous Peoples have been warning, however, that the earth’s capacity has been stretched to the limit, on account of over-exploitation. They have cautioned that adoption of a peoples’ worldview which puts sustainability of the planet at the centre, is an urgent and necessary task, if life and the earth are to survive. Under the pretense of environmental/global survival, megacorporations have engaged in piracy and profiteering. Their projects have been implicated in the destruction of the environment. Yet, some of these very corporations have nominated themselves to conserve the biodiversity of the South and the DNA of Indigenous Nations, for the “good of humanity”. Relatedly, conservation efforts are underway extensively
in the South, as conditionalities linked to World Bank debt-for-equity swaps. The conveniently adopted intellectual property rights make it easy for biopirates to immediately file patents electronically in the US claiming ownership to the resources of the South. In indebted economies forced to adopt the prescriptions of the Bretton Woods institutions, biotechnology is the new paradigm of development which is being thrust on the South by the WB/IMF. On account of SAPs, the South is faced with economies which have been devastated in varying degrees. The appropriate climate for direct foreign investment has, therefore, been secured. Citing the need to create improved crops and animals in their commitment to feed the world’s hungry, TNCs which gain access to economies in the South conduct dangerous experiments, for their own interests, utilising genetically engineered organisms. Conservation projects relying on biotechnology to transform indigenous plants into patentable products, are overwhelmingly located in sites of biodiversity where Nations of Indigenous Peoples reside. Whether in Guatemala, Brazil, Peru or Chiapas, Mexico, a pattern is emerging which is striking in similarity. While medicinal plants are removed for analysis and control in the North, Indigenous Peoples living within the vicinity of the conservation sites are the victims of a new wave of biocolonialism - death, torture, rape, genetic mutations, “unexplained” diseases and landlessness. As communities are being disappeared, revealingly, their DNA is being stored and

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4 One such project, for example, is a debt-for-nature swap to “support Jamaica’s effort to preserve its tropical rain forests in Blue and John Crow Mountains National Park”. In 1994, over $150,000 (US) in discounted Jamaican debt was “purchased” by AID and Fidelity Investments. This sum was then routed in Jamaican dollars to the Jamaican Conservation and Development Trust. The “Trust” works in collaboration with the Smithsonian Institution. Tom Lovejoy, Smithsonian assistant secretary for external affairs, referred to the swap in Jamaica as “innovative collaborative work that is possible for urgently needed conservation and research on tropical rain forests and threatened species.” See BioScience Vol. 44 No. 9 (Oct. 1994), p. 645.

5 These economies have also suffered tremendously because of weak, oftentimes corrupt governments, wastage and the continuous plunder from South to North maintained through the liaison between local elites and international business.

6 See “Genetic Engineers Target Third World Crops” in Panos Briefing No. 7, December 1993.
databased by the military. In the South, the local militia has been strengthened by growing US military assistance in the “war against drugs”. It is no secret that this assistance has been harnessed to front attacks on indigenous struggles for land and self-determination. The seduction of biodiversity and biotechnology is the promise of never-ending profits for transnationals. The achievement of absolute power over food, medicine, water and the creation of life seems to be their dominant goal. NAFTA has therefore been constructed to allow for the colonisation of these elemental areas. To facilitate the appropriation of these resources, the land has become the target of biopirates and biocolonialists. Without consideration for cycles of Nature, they sever medicinal plants rooted to Peoples’ survival and identification, from territories in the South, throwing the ecosystem into upheaval. Greed and a limited worldview, have conditioned biopirates and conquistadors to remain deaf to the predictions of devastation, which foretell how the violence unleashed in the South will be answered throughout the entire planet. Not content with removing the wealth of the land, TNCs have rendered Indigenous Nations landless, without moral concern for self-determination and sovereignty of Peoples. This is the framework within which NAFTA is operating. This is the plan for the Americas. In sum, the quest for El Dorado is, in reality, a project of conquest and territorial control. The warnings manifested through the monumental changes occurring on the earth, however, are eloquent statements of condemnation of “development”-

Freer trade and globalization of markets encourages the exploitation of resources at a rate that is limited only by world demand. More free trade, whether through NAFTA, GATT or the Canada-U.S. Free Trade Agreement, will only reinforce the worst aspects of the globalization process that has created the current crisis. . . There must be limits to trade if the global economy is to be sustainable. Free trade by definition rejects these limits and
is, therefore, clearly unsustainable (Ecumenical Coalition for Economic Justice, 1994).

"Trade not aid" is the slogan of the supporters of NAFTA. When Mexico was chosen as the first country of the South to be included in free trade talks with the US, this was no accident. In August 1982, Mexico declared that it was unable to make payments on its debt. Mexico became the "first country to undergo various financial arrangements designed to contain the debt crisis" (Ecumenical Coalition for Economic Justice, 1994). The Coalition tells that, since 1982, Mexico has been handing over more than half of its trade earnings to cover interest payments on its $111 billion (US). Since 1983, Mexico has been privatising its public enterprises. SAPs have been adopted, accompanied by the well-documented regressive effects on the population due to trade liberalisation, export-led production and cutbacks in health, education and social services. Three-quarters of the low-wage manufacturing jobs created in Mexico between 1984-1990 were in maquiladoras where the treatment accorded to young women is well known. With the inauguration of NAFTA, workers in relocated industries such as electronics and transportation equipment are forced to attain higher levels of productivity while their wages continue to plunge. Women in Canada have met with a similar fate which is patterning itself after events in the South. Indeed, Canada has itself been undergoing structural adjustment, as has been more recently and dramatically obvious in Ontario, the province which is "open for business".

Canada’s economic policy changes since 1984 resemble changes for adjustment initiatives in many “developing” countries, where such policies usually follow two goals - stabilisation and structural adjustment. In Canada these terms are not used, but the policies are comparable. . . Canada’s
"structural adjustment" relies on trade liberalisation and export-led growth (GATT Watchdog, 1995: 1).

The “trade not aid” proponents fail to highlight the connections between the plight of Indigenous Peoples and the fate of women workers, children, the working poor and others within the economic restructuring underway in the Americas. Under NAFTA, 15 million campesinos, including women and children, in Mexico, will be unable to support themselves in subsistence agriculture as US transnationals appropriate control of food production. More than 2,000 maquiladoras in Mexico employ about 500,000 workers. US companies own more than 85 percent of these plants. Almost 90 percent of the plants’ production is directed toward the US economy. The promise of technology transfer from these industries to the Mexican economy remains a myth. Only 1.5 percent of the non-human inputs of the maquiladoras comes from Mexico. Who benefits from this form of trade is readily apparent. Meanwhile, according to a study by Ana Esther Cecena of the Institute of Economic Studies at the National Autonomous University of Mexico, salaries for female maquiladora workers have dipped by 33 percent in the past decade while the workload has increased by 158 percent (Ecumenical Coalition for Economic Justice, 1994). The impact of NAFTA on women in Canada has also been harsh and immediate. In the Canadian economy, women workers are concentrated in a number of sectors- food processing, electronics, clerical, education, nursing, data processing, light manufacturing and textiles. As a result of NAFTA, labour-intensive positions are being relocated to Mexico and the South of the US where other women are employed for lower wages in exploitative conditions of work. The impact of free trade and economic restructuring in Canada has been to push more women into precarious work and poverty. Jobs relocated to
the South have reinforced the subordinate position of women in those economies, subjecting them to more physical and sexual abuses, racist management practices and hazardous work conditions. In Canada, 70 percent of the entire part-time labour force is made up of women. The falling wages experienced by women have been used by corporations to force men’s wages down. The creation of a contingent, “flexible” workforce in a climate characterised by reduced social services, the cancellation of a national daycare program and a health care system rapidly transposing into the US model, is, the proponents of NAFTA state, to make Canada more competitive globally. With respect to women, but with applicability to many workers, increasingly, the picture in the South warns of the further transformations to come in Canada where women’s lives are being rapidly shaped by free trade-

Companies are increasingly switching to hiring part-time employees in order to lower costs and create a flexible, reserve workforce. This new workforce also includes workers doing piece work in their homes (e.g., at sewing machines or computers). These reserve workers are available to work when required on a contractual or part-time basis, for low wages, minimal or no benefits and little job security. In both Canada and the U.S., precarious work is growing much faster than total employment and becoming a permanent arrangement with many employees (Ecumenical Coalition for Economic Justice, 1994).

In Mexico, 40 percent of a population of 85 million people is under the age of fifteen. As many as 10 million children work (Ecumenical Coalition for Economic Justice, 1994). How this reserve army of children will be drawn on and abused by transnationals is a serious cause for concern. Comparably, in Ontario, in 1996, a draft from the Ministry of Education on reforms to secondary schools reduces the total credit requirements for receipt of a high school diploma. Further, it reduces the number of hours required to receive a credit from 110 to 90
hours of instruction. Even further, the draft records that the Minister of Education has seen fit to base between 20-40 percent of the credits granted for a high school diploma on a new stipulation for students in Grade 10 - “unsupervised, unregulated work-experience which may include low-paying, part-time jobs” (Update, April 1996). Ontario is therefore creating its own rotational reserve army of children which will fill the posts of retrenched adult workers. Child labour - whether as workers, tourist-guides or prostitutes is one of the features associated with NAFTA in the South. Business in Ontario also seems carded to be a beneficiary due to the reforms proposed in education. The Ministry of Education’s Excellence in Education: High School Reform (1996) suggests that “more flexible co-operative/work experience options” be made available to as many high school students as possible. Further, this document asks whether work experience should be a requirement for all students. As one of three options framed around the issue of work, the Ministry offers that “… students would choose to pursue a work experience based on their long-term goals, interests, abilities, and available time … those who complete would receive a full or partial credit”(1996: 21). It remains to be seen whether the reforms involving work experience proposed by the Ministry of Education in Ontario are intended to support downsizing employers’ demand for a non-unionised “flexible” workforce.

Although Japanese-US trade disputes have existed since the 1960s, more trade tensions and economic rivalries are the hallmark of the free trade era. Recently, the Clinton Administration imposed heavy tariffs on Japanese luxury cars in retaliation to its assessment of restrictive practices in the Japanese automobile sector. The rhetoric of free trade promises that the threat of trade wars is supposed to diminish as TNCs strengthen their linkages. During the
Japan-US trade dispute, the US warned the Japanese that failure to cooperate could lead to the erosion of security relations between the two countries. The position taken by the US in commercial warfare is foreboding as it is contradictory, illustrating the full potential of crisis in a system geared solely toward capital accumulation. The US strode ahead with its threats ignoring the role of the WTO which it had so visibly supported and shaped, itself. It ignored the fact that TNCs in the US are closely tied to Japanese TNCs. General Motors is involved with Isuzu; Chrysler with Mitsubishi and Ford with Mazda. The “big stick” approach of the US is also evident in its bullying of China on piracy of intellectual property when, contradictorily, the US “leads Western interests in the rampant exploitation of intellectual property of Third World and indigenous peoples - their knowledge and use of traditional medicinal plants for pharmaceuticals, and other cultural heritage for corporate gain” (GATT Watchdog, 1995). From the perspective of the Peoples of the South, could the US in its quest for hegemony, force NAFTA member states to participate in its contrived disputes with Cuba, China, Iraq and Libya at a military level? The colonisation of the Americas reflects the empire-building quest on which the US has embarked. NAFTA signatories have been brought into an arrangement in which the South is expected to follow the directives of the US. Further, a non-democratic, unelected decision making mechanism, currently domiciled in Montreal, Canada—the North American Free Trade Commission, has been assigned power to make decisions which can extend the scope of the NAFTA Agreement without concern for the power vested in governments of nation-states. This is cause for serious reservation. The Commission stands now in a position to enact policies for the entire Americas. It has assumed on its own nomination quasi-governmental status for an entire continent. Naturally, it represents the
interests of the US. The concentration of power which remains vested with the US through the NAFTA project had been arrogantly displayed even before countries of the South had signed Pre-Accession Agreements. In August, 1991, Carla Hills, US Trade Representative, visited Costa Rica where she was presented with a ten point proposal expressing concerns felt by citizens of that country on tariff phaseouts in preparation for eventual accession into NAFTA. Hill, it is reported, made it clear that she would neither study nor give serious consideration to the issues raised. As Shamsie (n.d.) notes, “Hills’ reaction exemplifies first, the recognition that as the dominant power the United States need not consider the wishes of its bargaining partners. How the Commission will make decisions given the power imbalances between present and future NAFTA members is certainly worrisome.

The intellectual property rights regimen which the South has been forced to adopt firstly for membership into the EAI, which then sets the stage for entry into NAFTA, has been designed by TNCs to further capital accumulation and control. Costa Rica, not yet a NAFTA member, had historically maintained one of the most successful public health systems in the world. Prior to changing its laws on intellectual property, drug patents lasted only one year in this country. At the end of this term, medicines could be copied by government laboratories or the private sector. Having signed intellectual property legislation, Costa Rica, like Canada and countries of the South, is forced to observe drug patents for twenty years. Not only will this decimate the successful Costa Rican model, it will make health care in the South a thing of the past. Generics in the South will face the same fate as in Canada as more pharmaceutical TNCs and their “pseudogeneric” alliances relocate-
AltiMed, which started business on March 1, was born of the merger of two generic companies, Kenrai Inc. and SynCare Pharmaceutical Inc. . . . these two were known as “pseudogenerics,” for they were the offspring of drug giants Upjohn and Hoffmann-La Roche. Their job was to take generic versions of their parents’ brand-name drugs to market. Through AltiMed, the two have joined forces and have brought in a third and equal partner, Glaxo Wellcome Inc., which had been licensing its products to Kenrai for generic sales. AltiMed now markets the generic versions of its owners’ patent drugs, and, under licence, those of other big-name drug companies. Fifty-one drugs in all. The products are identical to the originator drugs (Maclean’s, April 1, 1996; 40).

The Guyana Times of 27 June, 1996 reported recently that “foreign lawyers are now allowed to practise their profession in Trinidad and Tobago, after laws were changed recently”. The newspaper tells, further, that “the Trinidad Parliament approved the amendment to the Legal Profession Bill to clarify the ‘eligibility’ for admission to practise law in the twin-island state”. The change which has been effected in Trinidad-Tobago, which has not gained admission to NAFTA, is of significance to the work of TNC patent lawyers. The Times, however, records no such privilege being granted to Caribbean-trained lawyers allowing them to practise law in the US. Trinidad-Tobago can expect to see lawyers on the TNC payroll arriving to secure patent rights7 for “inventions” and to uphold the twenty year period such as has been granted to pharmaceuticals in Canada. Will US teachers and doctors be next to introduce changes into the science curriculum and to head research centres in the South? In Ontario, Canada, these issues are matters of serious concern as education and health are forced to restructure. Both the South and Canada are being prepared to absorb professionals from

7 See “Genetic patents raise concern” in The Globe and Mail., 24 March 1994, p. A1. A2, where it is reported that, “people skilled in biotechnology and patent law are in demand; a steady stream of patent examiners from the U.S. Patent and Trademark Office leave to work in the lucrative private sector”.
the US as the model of privatisation introduced through NAFTA takes root in the former. NAFTA is therefore creating a space for US residents to fill, as guardians of TNC interests in countries of the South. The parallels associated with trustees in territory under colonial governance are obvious.

1.4. Execution Of The NAFTA Agenda

The strategy applied North of the USA in the NAFTA appropriation of the resources of the Americas, is different from that exerted in the South where indebtedness and SAPs imposed by the International Monetary Fund in concert with the World Bank (WB/IMF) make it considerably smooth for privatisation and debt-for-equity swaps to proceed as part of overall policy imposed by the Washington lending institutions. Marketed as the economic “fix”, the injection of foreign finance capital is proposed as the solution for economies in the South suffering from spiralling poverty, unemployment, over-population, disease and lawlessness. In reality, the maintained indebtedness of countries of the South continues to be institutionalised to pry open economies for their considerable resources. So important has it been to force the majority of the inhabitants of all of Mexico, South and Central America and the Caribbean to view themselves as in need of Northern beneficience that the IMF has resorted to fraudulent practises to bring all countries under its supervision. This has been the case, for example, in Trinidad-Tobago (Budhoo, 1988).

For NAFTA medicine to be effectively applied to the South, all countries must be brought to their knees. A crisis must be created in all economies so that these countries, characterised as being in the throes of debt, will accept the prescriptions of the Agreement in a
bid to recover from further devastation. The impact of debt and structural adjustment in Latin America has established the crisis conditions from which NAFTA might proceed.

... By 1993, 60 million more Latin Americans had been driven below the poverty line, bringing the total to nearly half of the population ... Adjustment has brought new levels of anxiety into millions of lives by generating more insecure, part-time or informal-sector jobs ... The Latin American élite has snapped up some rich pickings in the fire-sale of privatization, boosting the number of Latin America's super-rich billionaires from 6 in 1987 to 42 in 1994 ... poverty relief is back in vogue ... (New Internationalist, October 1995:35).

Following the successful creation of poverty in Latin America, the formula - creation of a crisis - had to be imposed in all of the Caribbean - any exceptions would jeopardise the bid for the resources of the entire Americas. This all-or-nothing approach was, in my opinion, the force behind IMF fraud conducted in Trinidad - Tobago.

While the forests of South America\(^8\) are being ransacked for their biodiversity, and, as larger tracts of land become the property of transnationals to be mined for oil or ores or to be cultivated with genetically altered crops, Canada is also being transformed by corporate giants needing the restructuring economy North of the USA for further consolidation of capital through further colonisation of the Canadian state. The Free Trade deal worked out by the Mulroney\(^9\) government was driven by corporate interests domiciled in the USA to ensure that Canada would be forced along the path toward privatisation, ensuring deeper colonisation of Canada by the USA.

\(^8\) South America is currently the continent on the earth with the greatest remaining biodiversity. All other regions in Africa, Asia and the Caribbean having been plundered to the point of facing extinction threats.
\(^9\) Mulroney is now the subject of a legal investigation in Canada, having allegedly received a kickback for purchases of aeroplanes from Airbus Industries in France.
The pillars of Canada's social services - health and education - if privatised, could yield goldmines for US companies languishing in a declining economy. Further, control of Medicare, Canada's universal health care system would tie in perfectly with the biotechnological industry's bid for the ownership of the biodiversity of the Americas, in the South initially, but eventually, completely. What better place to utilise the medicines appropriated from the forests of the South and the knowledge extracted from Indigenous communities than in Canada where, unlike the US, all citizens have free universal health care, paid for by the government? The ease with which these funds might be accessed, for instance, through generous tax write-offs and taxpayer dollars, would ensure longevity in the lifespan of the industry, even while health care and accessibility declined for Canadians in an economic climate of structural adjustment.

Currently, biotechnology is viewed as one of the most promising emerging areas for providing employment as the world moves toward the millennium. To place this within proper perspective, Fowler et al (1988: 181) tell that efforts in the US, (where, it is agreed, the biotechnology industry began) have been the strongest to commercialise biotechnology. Analyses on the economic impact of the new biotechnologies have suggested a US $40 billion market in food processing before the end of this century. An estimate from Wall Street had predicted sales of US $3 billion for genetically-engineered pharmaceuticals by the year 1990. Sales of AIDS-related bioproducts and diagnostic kits are expected to soar into billions of dollars. Interestingly, almost half of the "molecular millionaires", as listed in Genetic Engineering News in February, 1987 were PhDs holding university positions while working for
the biotechnology industry (Fowler et al, 1988: 179-182). The “promise” of biotechnology is associated with the reaping of tremendous profits. Statements of caution have been issued by citizens, NGOs and scientists regarding the role being undertaken by this industry. Dr. Mae-Wan Ho of the Department of Biology, Open University, United Kingdom, tells that the “collapse of the genetic paradigm has been known for at least the past 10 years” (1995: 29). She cautions that genetic tinkering is “... the ultimate in a long history of colonial and post-colonial exploitations where bioprospectors, by patenting ..., are taking away the livelihood of indigenous communities. ... as well as intellectual resources” (1995: 29). Philip Regal, a Professor at the College of Biological Sciences at the University of Minnesota, USA, traces (through the work of historians) the foundation for the development of molecular biology and biotechnology to the Rockefeller Foundation. Regal tells that in the 1930’s, Warren Weaver and Max Mason at the Rockefeller worked to promote “the social philosophy of eugenics” in conjunction with the idea that “science would solve humanity’s problems without radical tamperings with the political and economic order” (1995: 35). After World War II, Regal tells that the Rockefeller turned over its programmes to the federal government. This is the period in which population programs were being developed and exported to the South. Regal tells that the vision of the Foundation was transferred as “an organising principle”. Mies (1993) extends the discussion by proposing that sociobiology offers the link between the old eugenics and reproductive technologies. Mies states that sociobiology arose in the USA when the

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10 Genentech’s Herbert Boyer, former university professor, tops the list of academics turned millionaires. Boyer’s personal fortune is estimated at $88 million(US). William C. Rutter, former professor at University of California Medical Center is said to be worth $21 million(US). Rutter is now Chair at Chiron Corporation. Former microbiologists at University of Washington, Stephen Gillis and Christopher Henney, are worth some $6.3 million(US) each through their employment with Immunex. See Fowler et al. “The Lords of Life,” in Development Dialogue 1-2 (1988), p. 171-193 for a comprehensive treatment of the corporate/university nexus within the biotechnology industry.
government and the ruling classes were no longer willing to support social assistance programs for the disadvantaged. As such, proponents of sociobiology, such as Harvard's Edward Wilson, have gone so far as to "... explain even socially and historically created institutions and customs... in terms of inherited traits" (Mies, 1993; 183). Considering the historical context of sociobiology and biotechnology as outlined by Regal and Mies and the characterisation by Ho of genetic engineering as the "ultimate", it appears that a "hoax" is being perpetuated on humanity, both South and North.

When the 1989 FTA came into effect, numerous cutbacks and changes occurred in federal funding in Canada to health, education, unemployment insurance and family allowance, among others. As a result, provincial commitment to these areas were forced to adjust. On December 10, 1992, the Mulroney government passed Bill C-91, a new drug legislation in the House of Commons, eliminating the survival of cheap, generic drugs while extending a twenty-year patent protection to pharmaceutical companies. These changes were designed to force Canadians to "harmonise" their social services in line with those of the USA. Occurring a full year before the coming into force of the Biodiversity Convention in December 1993, Bill C-91 must have reassured the pharmaceutical industry as is evidenced by increased global plant life explorations in areas of biodiversity. If the Biodiversity Convention might pose problems in the continuation of "business as usual", Bill C-91 left transnationals secure in the knowledge that the Canadian state had made it possible for drug monopolies to be maintained at least until the year 2012. Even if these companies were slightly worried about the decision to be made at the upcoming Convention on in-situ germplasm collections, the promise of profits accorded to them on account of Bill C-91 would have propelled them into more aggressive plunder in the
South in a feverish search for patentable products before December 1993 came around. Indeed, even prior to the FTA, US institutions such as the Smithsonian and World Wildlife Fund (US) had, as of 1983, started “botanical investigations” in the Guianas11 (Bioscience, December, 1993). Bill C-91 is therefore one of the key mechanisms in the colonisation of the Canadian economy which has made it easier for the NAFTA agenda to be extended to Mexico, the Caribbean, Central America and South America. The twenty year period is strategic. There is a direct link between increases in global warming and the creation of environmental refugees. Sisk et al (1994) have named Nigeria, Angola and Guatemala, among others, as countries facing biodiversity threats which “constitute the current front lines of the extinction crisis”. These are all countries where Indigenous Nations have been engaged in struggles for their land and resources. The plant life investigations currently underway are occurring in regions targeted as being environmentally threatened, in part, because of the intensification in activity by agricultural transnationals and extractive industries. In full awareness of the knowledge that by 2050, 150 million environmental refugees will be fleeing environmentally destroyed ecosystems (Myers, 1993), the pharmaceutical industry has used the Canadian state to clinch a deal allowing them monopoly power in the area of health in the contemporary period and in the future, if the present developmental expansionist path prevails. As the global

11 The Biodiversity of the Guianas Program in Guyana, Suriname and French Guyana is stated to have started as a “botanical collecting initiative” in 1984. The “collaborative” relationship between the Smithsonian and the Burnham government of Guyana is said to have been articulated in a “memorandum of understanding” signed with the University of Guyana in 1989. The project is part of an overall effort to document all flora of the Guianas. It adds to the work, therefore, of the Missouri Botanical Garden, currently attempting in Colombia, Peru and Ecuador, to catalogue all plants growing naturally in North America north of Mexico in its Flora of North America Project. How capital intersects with “conservation” projects is perhaps revealed by the fact that the Royal Bank of Canada has participated in the Biodiversity Program through financing the construction of the Center for the Study of Biological Diversity at the University of Guyana. An informant has told me that within this center a new field of academic investigation is being pursued- the study of the Indigenous Peoples of the region.
capitalist model imposes itself through NAFTA and SAPs even more securely in the Americas, it is evident that the biodiversity of the continent is becoming appropriated by the US through myriad schemes such as the conservation project of the Smithsonian-WWF in the Guianas. In 1995-1996, draconian cutbacks in government spending become a permanent feature of the economic landscape of Canada. Of specific significance for this study, Canadian health care and other professional services exempted under the FTA will be reviewed no later than 31 December, 1998. Several provinces, in all likelihood, may not be federally funded for health care by 1998. As a result, provinces are closing or merging hospitals, laying off staff, contracting out services and generally lowering the quality of care extended to the sick. A disturbing feature on the horizon is the rise of large research centres generously funded by the biggest players on the biotechnological fast track. As Ottawa steadily reduces its transfer payments to the provinces, it will no longer be able to compel them to abide by the five principles of the Canada Health Act governing Medicare - universality, equal access, comprehensiveness, portability and non-profit administration. By 1998, most of the services existing under Medicare may well be only available from American insurers such as Liberty which is already aggressively advertising in Canada and, possibly, banks. In order to profit from genetic screening, pharmaceutical transnationals can be expected to merge or buy out insurance companies. American insurers use genetic screening to “predict” to which diseases their clients are susceptible. On the basis of this imperfect science, fees are set or insurance denied. Further, according to the Centre for Policy Alternatives (1992: 96), it is anticipated that

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12 Accordingly, in July 1996, Canada’s Prime Minister, Jean Chretien, announced that his government will not be committing funds for AIDS research beyond 1988.
13 See University of Toronto Magazine Summer 1995. p.12 on the role of Bristol- Myers Squibb in this regard.
"billions of dollars" will be transferred from Medicare to "multinational hospital management firms, pharmaceutical companies, private insurance companies, and biomedical manufacturers".

From the point of view of capital, transnationalisation of uncharted areas of the globe can now occur aggressively and unabatedly because of trade agreements such as NAFTA.\textsuperscript{14} NAFTA has allowed the pharmaceutical and biotechnological industries to initiate steps to control Canadian Medicare. The Canadian health care system is a launching pad which will allow transnationals engaged in research surrounding agriculture, pesticides, medicines and artificial intelligence to extend empire and colonise the remaining land bases of the Americas, charting a course in the South, initially. Experiments conducted and perfected there on human, plant and animal life, away from the jurisdiction of Health and Welfare Canada and the Food and Drug Administration (FDA) of the USA, will be recreated in research centres in Canada, and paid for, at least in some part, until 1998, by provincial health plans. Further, having their foot in the door, transnational pharmaceuticals involved in the restructuring Canadian health care system and in the research centres of the universities now have access to the Indigenous Nations of Canada in ways which were denied to them before. As a bonus, they need not fear being identified. Their research will be subsumed under the rubric of Canadian medicine and science.

Under pressure from transnationals which have the wherewithal to provide research grants to the medical profession, via funds to research centres and medical schools, it is expected that the regulators of medicine will continue in the efforts to make it a criminal offense for naturopaths and alternative health practitioners to use herbal remedies in Canada.

\textsuperscript{14} And the World Trade Organisation (WTO), formerly GATT.
Bill C-7\textsuperscript{15} may remove herbs, health foods and vitamins from community stores, placing them within administrative control of the medical profession. Both of these regressive steps have already been initiated in Canada. Comparably, medicine women and men in the Americas South may be faced, increasingly, with circumstances such as are occurring in Canada and the USA in Indigenous Nations, where privatisation of communal lands is continuous and unresolved.\textsuperscript{16} Relatedly, group ceremonies and community visits to places of power (themselves, being appropriated and commercialised), may likely be banned (whilst outsider "culture vultures" continue to transform sacred ceremonies into New Age products for sale). A graphic preview of what may occur is the experience of the Ogoni people in the Nigerian delta, in their struggle against Shell Oil, and the continued refusal of the government to allow them to meet to conduct their traditional ceremonies. Frighteningly also, global outcry at these atrocities may be restricted to the squeak heard on the execution of Ogoni warrior, Ken Saro-Wiwa, and the whispers Indigenous Peoples strained to hear as France detonated its fourth nuclear explosion in the Pacific. Condemnation certainly cannot come from the USA nor Canada which are relentlessly maintaining their own campaigns of genocide against Indigenous Nations "at home".

Bill C-91 will enable the realisation of tremendous power by the pharmaceutical corporations. If Indigenous Peoples resist the corporate community's agenda, they will be arrested for breaking the law according to trade-related intellectual property rights legislation

\textsuperscript{15} Bill C-7, which has passed second reading in Parliament, intends to bring naturopathic medicines and natural foods under the control of the pharmaceutical industry. See Rona, Zoltan (1995) for more details.

\textsuperscript{16} See Ward Churchill, \textit{Struggle for the Land} (1992), for a discussion of the struggles of the Navajo in the Big Mountain area of Arizona and the resistance of the Lakota in the Black Hills area of South Dakota in the USA as a beginning. There are numerous other examples, including Canadian, in this excellent text.
(TRIPs). As for frequent dissenters who are considered a threat - and perhaps, genetically "prone to violence" - the Human Genome Diversity Project (HGDP) dubbed the "Vampire Project" by the World Council of Indigenous Peoples (WCIP), offers the capability to have these individuals eliminated without fuss or detection.

Biotechnological "breakthroughs" may, in the near future, replace workers in extractive industries on the land, below the sea and in the sky with clones, oblivious to hunger, cold, heat, exhaustion or morals, eliminating the need to employ paid personnel nor to offer workers benefits. If the NAFTA agenda is uncontested, a large section of humanity of little interest to capital\(^\text{17}\) will not survive into the millennium. Can the science establishment be allowed to continue to engage in the obsessive attempt to map the human genome as a pretext for curing the diseases largely created on account of the profit-seeking practices of its major donors? The targeted populations in the HGDP have expressed how these questions must be resolved. Seizing an opportune moment, the eugenics movement has resurfaced in a degraded, disease-breeding environment. Philosophically, the "cures" they proffer tie in with permitting or denying access to life. In 1928, biologist Charles B. Davenport, founder and director of the Eugenics Record Office at Cold Spring Harbour, New York wrote that

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\ldots \text{we are breeding too many people with feeble inhibitions and without proper social instincts; persons who have a tendency toward periodic outbreaks of temper and to assaults. } \ldots \text{if we permit them to be born, then we must apply such special treatment as will prevent their behavior from disorganizing society (quoted in Berkowitz, 1996:42).}
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\(^{17}\)Their resources- plants, medicines, knowledge, minerals, land, water and DNA are of infinitely more interest to transnationals in the era of biotechnology as compared to their traditional status- as a reserve army of labour.
Exhibiting similar thinking, in 1969, biologist Robert I. Sinsheimer, former chancellor at the University of California, Santa Cruz, and an architect of the Human Genome Diversity Project, wrote

The new genetics would permit in principle the conversion of all of the unfit to the highest genetic level... Equality of opportunity is a noble aim given the currently unescapable genetic diversity of man. But what does equality of opportunity mean to the child born with an IQ of 50? (quoted in Berkowitz, 1996:42-43).

The science establishment often invokes “neutrality” or “objectivity” to camouflage the gripping moral issues with which they are engaged. How some conceive life, as is spoken to in the following example, is troubling. According to the biologists and computer scientists who attended the first workshop on Artificial Life in 1988 in California, a human being is nothing special, in the name of creation - “Life depends on the functional relationships developed between biomolecules if you happen to be the right molecule in the right place at the right time with the right other molecules...” (Development Dialogue, 1988: 159). Sponsored in part by Apple Computers, the creation of a new form of life was seen as the “timely result of the marriage of artificial intelligence (computers) with biotechnology”. While four-fifths of the world in the South is faced with deteriorating conditions of living, scientists in the North seek to create a “life” form of their own learned choosing. How this development might contribute to humanity is unclear, though it certainly invites speculation.

It is my belief that the creation of new life forms and the destruction of life as we know it, or, more succinctly put, the creation of surplus populations, is at the heart of the biotechnological thrust. Is it a matter of mere coincidence that the same industry which is attempting to sweep peasants, farmers, the disenfranchised, the poor and Indigenous Nations
off the lands of their foremothers and forefathers is collecting, for experimental purposes, to be maintained in “perpetuity”, the blood of some of these Peoples? Is there not a relationship between extraction of blood, landlessness and dispossession and the plunder of biodiversity by transnationals? A number of American scientists have, on account of “spectacular advances in molecular biology and genetics” rejected the concept of race, and its organising principle to place humans in distinct groups. Luigi Cavalli-Sforza, (associated with the HGDP), a genetics professor at Stanford University, is of the opinion, based on data gathered from 42 population groups around the world, that, according to DNA, boundaries around race cannot be drawn. These scientists opine that differences between people only become apparent when they travel long distances. Following this reasoning, they purport that this accounts for “differences” having become distinct, as of when Africans were transported from West Africa to the Americas and Indigenous Peoples “populated the continent at least 10,000 years ago”.

Presumably, therefore, those Africans who did not come to the Americas appeared “different” physically from their transported relatives. I will not address the Bering Strait myth. That has been impressively and summarily dismissed by Indigenous Peoples.19 The geneticists relate, however, that Africans, were dark skinned. Claiming that “modern humans originated in equatorial Africa about 200,000 years ago,” the scientists state that some Africans who migrated to Europe “had a gene that gave them slightly lighter skin”. As these “light-skinned” Africans reproduced, they eventually produced Anglo-Saxons, Swedes and fair-skinned northern Europeans. The assurance from John Moore, head of anthropology, at the University

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19 See, for instance, “Court Proceedings”, Tapes VI and VII of Ward Churchill’s presentation as witness to the First Nations International Court of Justice in Ottawa, Canada on April 2, 3 and 4. 1996.
of Florida that “people can go from black to white, or white to black, in 10,000 years, is perhaps the crowning statement in this article. What is the rationale behind this seeming inclusivity expressed by anthropologists and associates of the HGDP? As Peoples of the South and Indigenous Nations find their existence threatened, will the scientific authority of geneticists be engaged to invalidate the claims of these distinctive Peoples? If white people can become black and vice-versa, will the potential disappearance of distinct Nations be viewed as being urgent, or will there be little concern since these Peoples can be reconstituted from the remaining, presumably, white, stock? Relatedly, is the mission of the US the decimation of the South in the hegemonic struggle for power? Is this, in effect, the NAFTA agenda?

1.5. Theoretical Underpinnings, Background and Context

1.5.1. Distopian Futures

This is the era in which imperial corporations roam the world midst banal talk about globalisation and global villages. Harnessing technological developments to further their lust, institutions which are political instruments of neo-colonialism, have become “world empires of the twenty-first century” (Barnet and Cavanagh, 1994). Relying on the spread of credit distributed across the world and the expansiveness of telecommunications which allow for the purchase of aggressively advertised Western products, transnationals have become the paramount power in world politics, shaping the “new” world economy while eliminating the “hopes and pretensions of governments” (Barnet and Cavanagh, 1994). Never before has so much influence been wielded by a handful of companies over the entire population of the earth. Neither nation-state nor any existing world empire has demonstrated such integration on a world scale as has been achieved by these corporate monoliths. This era in which transnationals
rule the world is unprecedented. Nation-states are being squeezed out of existence by transnationals which have announced their claim to ownership of the earth. Even as the nation-state flounders, rent asunder by environmental devastation, unemployment, cultural assault, ethnic hostilities and poverty, "developmentalism" fetters the Peoples of the South. The sobering reality is that the South, as a whole, is imprisoned in neo-colonial relationships with the North. Post-colonial states which fought for their liberation and self-determination are now managed directly by the agents of neo-colonisation - the World Bank and the IMF. The principal architect in shaping the policies of the World Bank and the IMF has been the USA. As the USA counters the European condominium by laying the foundation for hegemony through the construction of the North American Free Trade Agreement, countries of the Americas are being restructured and transnationalised to serve the needs of capital domiciled in the North.

The capitalist restructuring spearheaded and controlled by transnationals has created a situation of crisis proportions in the South. The impact of the transformations wrought in the periphery have also been extended to the North and indeed, to the entire world. There is societal upheaval, dispossession and ecological devastation in both South and North, in varying degrees. These, and their far-ranging effects in the political, economic, social and cultural spheres are directly attributable to the transformation of entire countries to meet the expanding needs of capital. In an age governed by technology - robotics, telecommunications and biotechnology - the peripheries of the South are no longer important as reserves of labour. Further, synthetics produced in the North are replacing all of the primary commodities produced by post-colonial states. Oil-producing countries, themselves, have not been exempt from scientific and technological forays aiming to relieve these economies of some of the power
which they have retained within the cartel of OPEC. A synthetic has been successfully produced in the USA to replace oil. Politically, this development will enable the North to put countries of the South with leverage back in their place. Current US attempts to isolate Libya and Iraq take on even greater significance within this context. Of all of the replacements, to date, it is the substitute for oil which has given economies of the North the “freedom” to be frank in their dealings with the South. While the remaining resources of the South are needed for ongoing capital accumulation, the Peoples themselves are of little consequence to the North. In fact, to a grossly over-consuming North, they stand in the way of “evolution” and development.

It is increasingly becoming evident that the global restructuring underway, in the post Cold War era, is overtly racist. The intimations of the contemporary period that Africa, Central and South America, the Caribbean and Asia are not important to the interests of Europe and the USA are actually to deflect attention away from the fact that, while the resources of the South are indeed more important now than at any other time, in this moment of capital accumulation, the Peoples are deemed to be an obstruction to untrammelled plunder. Specific plans have been hatched to deal with this obstruction. With respect to Indigenous Nations in the South and Nations of the South in the North, a construct of ownership based on a colonising notion of knowledge alien to indigenous knowledges, has been formulated by transnationals and entered into the text of “international” agreements- GATT (WTO) and NAFTA, to allow for the appropriation of the resources of the South. Corporate ownership through TRIPs is being contested, however, by communities of those who constitute four-fifths of the world who, by and large, hold to the view that knowledge is community-constructed and
communally-held. Another tool constructed to deal with the protectors of biodiversity in the South and in the South of the North, is the Human Genome Diversity Project. Conveniently, as the plants and indigenous knowledges of these Peoples are being plundered in this period of biopiracy and biocolonialism, the blood of Native Peoples is being collected by pharmaceutical transnationals to be maintained in “perpetuity”. The privatisation of indigenous lands to make way for the implementation of megaprojects is part and parcel of the ecocide and genocide being wrought on Indigenous Nations in the “new” world order. As mentioned earlier, indebted countries of the South have, as a specification of the WB/IMF reforms of SAPs, changed their alien landholding acts. In the South, in the North, as is borne out through contemporary events in Canada, the government has opened the “frontier” of the North to prospectors and bioprospectors. In September 1996, setting frightening precedence, individuals and representatives of transnationals are poised to claim the territory of Indigenous Peoples as theirs in a goldrush reminiscent of an earlier era. To hasten this development, the Minister of Indian Affairs, Ronald Irwin, aided by bureaucrats, has secretly drafted 63 proposed amendments to the Indian Act to “open the door for Indian people to lose their land in business deals, which happened in the United States”, according to Ovide Mercredi, the national Chief of the Assembly of First Nations.\(^{20}\) As Indigenous Peoples are rendered landless, their blood is being catalogued and exchanged with the military and other scientists engaged in experimentation of a pseudo-scientific nature. The historical record shows that Indigenous Nations whose blood is being collected and databased are “disappearing”. The military machinery which is implicated in disappearing numbers of Indigenous Peoples, is facilitating

the collection, storage and transmission of blood of Nations of the Americas (and, indeed, of Peoples of the entire South) to overseers of the HGD Project. Coincidentally, the tenuousness of Indigenous Peoples' existence in countries which themselves are overtly racist toward First Nations, is making it difficult to challenge the Northern biopirates armed with the weapon of Trade Related Intellectual Property Rights (TRIPs) to make the resources of the South a never-ending source of profit. Within the countries of the South, therefore, an existing contradiction derived from racist, colonial abstractions governing civilised/uncivilised, educated/ignorant and progressive/backward impinges on whether these economies will survive. To do so, nation-states in the South have to immediately make the linkages between their struggle and that of Indigenous Peoples. If they fail in this opportunity to redress centuries-old racism and oppression which have been an inherent part of state policy in post-colonial economies of the South, all these countries will suffer profoundly in the restructured global economy. The transnationals understand this well. As nation-states collapse and governments become impotent, the new political reality is being invented by transnationals on their terms according to their rules. Aspiring to reach a "global" market, the lives of most of the peoples of the globe are written off. This is the fundamental conflict in the "new" world order linking it securely to the old world order. In 1995, UNCTAD’s World Investment Report (WIR-1995) stated that TNCs are the dominant elements of the world economy. According to WIR-1995, 40,000 parent corporations with over 250,000 affiliates exist across the world. Controlling over two-thirds of the world’s trade in goods and services, TNCs are viewed as “the most important mechanism for international economic integration” (Raghavan, 1996: 31). Supranational capitalism is eliminating the nation-state as is evident in the collapse witnessed in economy after
economy in the South. The majority of the Peoples of the South are deemed to be irrelevant as is evident in the disintegration which follows economic integration. As consumers, they are not worthy of consideration—

Of the 5.4 billion people on the earth, almost 3.6 billion have neither cash nor credit to buy much of anything... A huge and increasing proportion of human beings are not needed and will never be needed to make goods or to provide services because too many people in the world are too poor to buy them (Barnet and Cavanagh, 1994: 16, 17).

1.5.2. Adjustment to the new world order: For whose benefit?

Using the debt crisis as a lever, the developed industrialised world is “adjusting” the South into an untenable position, appropriating the resources, destroying the land and eliminating the human capital of entire countries. In the past, economies of the South were important as suppliers of primary commodities. Today, synthetics are replacing all products, including petroleum, which have traditionally accounted for the bulk of the exports from the South. The South is not needed as markets for consumer goods as is evident from trends in world trade. According to Levitt (1991), trade between industrialised countries is growing much faster than trade between developed nations and economies of the South. Marxists have traditionally adhered to the view that peripheralised economies are important as sources of cheap labour to be drawn on and released as is convenient to the needs of capital. Levitt (1991) suggests that cheap labour is no longer critical to economies of the North in an era in which the demand for raw materials and agricultural produce is reduced. She states that immigrants, both legal and illegal are available in countries of the North as reserves of labour to be drawn on and discarded, when convenient.
I agree with Levitt’s comments on cheap labour, but, I disagree with her assessment of the declining need for materials and products in the North. As I show in this project, it is from the aggressive colonisation of the resources of the South - plants, medicines, germplasm and the DNA of selected communities - that transnationals intend to unleash on the world a continuous process of capital accumulation. The appropriation of resources in the South is presently occurring at a frenzied pace. Each product which is plundered is transformed with the assistance of science and technology into another “form of life” to be patented and controlled by the North. To deflect attention away from the biopiracy in which the North is engaging, the argument is being forwarded that the products of economies of the South are not needed. This is being done to create in the minds of the growing numbers of disenfranchised in the North the view that the overpopulated South, a strain to the “carrying capacity” of the earth, is detrimental to the survival of the developed world. The selling of this concept to communities in the North, themselves being subjected to structural adjustment in a technologically disempowering environment, is critical. It is a studied ploy to move communities in the North toward a position of non-compromise and non-compassion in the “new” world order in which South-North dialogue will become no longer a rarity, but an impossibility. Neo-conservative governments, unemployment and cuts in social services in the North are the reality in the contemporary period. Anti-immigrant sentiment is often utilised to build voter support. Recently unemployed workers in the North are led to believe, through the “win-win” rhetoric of NAFTA that their loss is someone’s gain in the South. Hostility towards, competition with and dismissal of the Peoples of the South underlie the orientation behind these deliberately constructed views and images. The recent prognostications from geneticists and
anthropologists that white people can become black is perhaps intended, among other things, to mollify those who query the devastation with which peoples of the South are being faced. After all, if Nations of distinct Peoples “disappear”, they will eventually be revivified through white people.

In the 1990s, nation-states of the South have been totally subjected to the management and policies of TNCs, the Bretton Woods Institutions (the WB/IMF) and GATT/WTO. IMF conditionalities and the Structural Adjustment Programme of the World Bank work to bring about and institutionalise the liberalisation demanded by TNCs as mediated through GATT/WTO. As Shiva comments (1993), however, it is evident in the South that “the deeper the global integration, the deeper the national disintegration”. Further, in the context of exploitation and disunity accompanying the trend toward globalisation, the observation is made that “markets that grow by forcibly depriving more and more people of their livelihoods provide the climate for militarized minds...” (Shiva, 1993: 109). Indeed, Abdoulaye Bathily (1989) has contended that in the “political economy of regression” fostered by the SAPs of the WB/IMF in Senegal, the police and the army have become the main networks of communication between the people and the government. As I highlight in this thesis, this outshoot, symptomatic of societal and governmental upheaval, is conceived as part and parcel of US foreign policy unleashed in the South. In Africa, Latin America, the Caribbean and Asia, the pattern is similar. The buildup of tension through what is casually assessed as “ethnic rivalries” creates the climate for US military offers to assist in “peacekeeping” under the auspices of the UN. Increasing numbers of US Marines, on account of agreements such as the Enterprise for the Americas Initiative (EAI) and NAFTA, have been relocated to the Caribbean and Latin
America, where they test their latest weaponry in the “war on drugs”. As might be expected, the logical conclusion to US intervention in the South is painfully apparent through the proposed “trusteeship” of an entire country, such as is being suggested in June 1996, for Liberia. These events then set the stage for tighter governance in the South by the US, in the first instance, through agents such as the WB/IMF. Underlying the massive destabilisation in the South, is the thirst for the remaining resources in the earth, the water and in the Blood of the Peoples, themselves.

Mies and Shiva (1993) demonstrate that there is a major contradiction between South self-interest and the global aspirations toward capital accumulation held by TNCs. While, on the one hand, the peripheries are denied access to the markets, resources and labour power of the North, the industrial nations - the USA, Europe and Japan - determine on the “world market” the prices of primary commodities from the South. The rhetoric of “free trade” as enshrined in arrangements such as NAFTA and GATT/WTO attempts to subsume in text the hierarchical relationship existing between South and North. Within these “international” agreements, the South is actually being forced to eliminate all “barriers to trade” opening up their economies even more for appropriation and transnationalisation. The inclusion of (TRIPs) in agreements such as NAFTA and GATT/WTO is to allow for control of the biodiversity of the South. Indeed, as Mies and Shiva (1993) note, maintenance of the sovereignty of economies in the South is in direct contradiction to the free trade agenda of liberalisation and privatisation. As a result, what benefits the North leads to catastrophe in the South.
1.6. NAFTA and the EAI

A bleak future is forecast for countries of the South as they are submerged into economic arrangements attempting to integrate all of the Americas into one investment hemisphere. NAFTA which builds on the Canada-US Free Trade Agreement is the instrument intended to ensure the economic integration of the Americas South and North. Initiated by the Bush administration and adopted by President Clinton, NAFTA seeks to establish economic supremacy of the USA. Significantly, the deal has been constructed with transnationals in mind. Although transnationals have always engaged in trade throughout the Americas, their activities have been subjected to governmental controls of some determined indigenous extent within the host economy. Traditionally, foreign investors have had to meet specific requirements before investing in particular countries. In the past decade, US corporate giants have succeeded in getting the US government to initiate a plan to ensure the economic integration of the Americas. This plan has rested on the construction of free trade agreements which would set into place common rules for all participating countries. Rather than governments in the South dictate the conditions under which foreign investment would occur in their economies, the reverse would now be institutionalised through free trade agreements spearheaded by the US government at the behest of megacorporations. Under NAFTA, member countries would now be forced to “permit” investment and trade to freely flow without being impeded by governmental restrictions such as might have existed to safeguard indigenous development. These conditions, guaranteeing unimpeded access to the South, are said by the proponents of free trade to be necessary if countries are to remain “competitive” in the global economy. In effect, the “globalisation” trend is initiated and directed by megacorporations for whom the
world is their playground. The competition of which the North speaks is, in reality, the tension between the USA, the EU and Japan as they vie for ascendancy given the new world order which the internationalisation of capital has brought into being.

In the new global economy, the race for profits is more vicious. Investment patterns have shifted. TNCs are the driving force of the global economy. Along with extractive industries and low-wage manufacturing, their thrust is now concentrated in providing “services” to the South in areas such as technology and telecommunications. To be “competitive”, the South, in addition to opening its markets to the North, is urged to adopt the new technology in order not to be left out and to become attractive to foreign investors. Globalisation is advancing on account of computer and telecommunications developments which make it possible for markets to operate in unity, defying past constraints of time-zones, borders or transmission delays. The science-technology nexus which the South is adopting in order to become “competitive” is speeding up extraction of its resources. Apart from the outflows of borrowed foreign loans being recycled to pay for Western technology, computer software and telecommunications systems purchased by the South are making the extraction and transference of indigenous material and data a simple secretive operation from South to North. Further, the technology transfer which has constituted part of WB/IMF “deals” with the South sets the foundation for the invocation of TRIPs to allow for the transference and patenting of the resources of the South.

According to Economic Justice Report (May 1992), “trade-related” with reference to TRIPs, conceals “... measures that make unprecedented incursions into areas of national jurisdiction”. In addition, the Report tells that agreements such as the FTA, NAFTA and the
EAI "... constrain democratically elected governments while offering more protection for transnational corporations (TNCs)". TRIPs enhance the power of TNCs, allowing them to patent and withhold "inventions" until royalties are secured. The reach of TRIPs is staggering in that nation-states which have agreed to this concept of ownership are discouraged from sharing knowledge and technology between themselves. If countries of the South fail to comply to TRIPS the US has threatened to deny them access to markets.

To deny access, the US retaliates against offending countries through the employment of Section 301 of the US Trade Act and its offshoots, Special 301 and Super 301. These laws allow the US to take action against any country which it has decided is engaging in a practice which the former deems "unfair, unreasonable or discriminatory" (Economic Justice Report, May 1992). Even though these actions may be disallowed under the terms of GATT/WTO, Section 301 "sanctions GATT-illegal actions but only for USA". The Report tells that Section 301 has been employed eminently "to secure investment rights and intellectual property protection for U.S.-owned TNCs".

The (EAI) was announced two weeks after negotiations on NAFTA started between the US, Canada and Mexico. In effect, its goal was to restructure Latin America and the Caribbean to allow for unrestricted access to resources and markets by US corporations. Both NAFTA and the EAI "are but the latest attempts by the United States to fulfill its long-standing dream of Manifest Destiny through the Americas" (Economic Coalition for Economic Justice, 1994). Both agreements serve to make the economic integration of the Americas under

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the domination of US transnationals an eventuality. The EAI has used the debt crisis in the South to restructure economies in the Caribbean and Latin America. Access to the EAI has been conditional on changes to domestic investment and patent laws in economies in the South. Before Mexico was even allowed to begin negotiations on NAFTA, that country was forced, under threat of Section 301 and through the offer of limited debt relief, to change its patent and investment laws. The EAI therefore, “builds on the success the USA, the IMF and the World Bank have already had imposing Structural Adjustment Programs (SAPs) on debtor nations” (Economic Justice Report, May 1992). Having restructured the economies of the South to facilitate access to their resources, the NAFTA Agreement supercedes and takes precedence over the FTA, GATT/WTO and the EAI. In areas such as investments, NAFTA is more restrictive of national sovereignty than any of the agreements cited previously, according unprecedented and permanent guarantees to foreign economic interests. NAFTA has constructed its base on previous trade negotiations, each coordinated to ensure permanent plunder from South to North.

The Mulroney government in Canada facilitated the establishment of precedents in the FTA which could be later taken into other trade negotiations. Specifically, under Mulroney, during the FTA negotiations, Washington and Canada “agreed” that US trade laws were allowed to be applied to Canada. These laws could be toughened at any time. Further, “new laws . . . apply to Canada as long as Congress mentions Canada by name” (Economic Justice Report, May 1992). The EU attempted to ban the US use of Section 301 during the Uruguay Round of GATT. Arthur Dunkel, Director-General of GATT, sidestepped the contentious nature of 301 by issuing a compromise text on December 20, 1991, which fell short of direct
condemnation of the unilateralism of the US. In Dunkel’s language, it “appears” that all trade disputes between member countries have to be resolved by the WTO. One US legislator has offered however, that “any trade agreement that prohibits use of section 301 is ‘dead on arrival’ in Congress”. The US continues to employ Section 301 in trade wars, despite the GATT ruling, as if it were a world unto itself. To be fully appreciated, this behaviour must be assessed within a framework which considers the historical non-compliance which the USA has accorded to international law. As one prominent example, the USA took 40 years to ratify the 1948 UN Convention on Punishment and Prevention of the Crime of Genocide, recognising, as is recorded in Senate debates, that “a broad range of federal policies vis-a-vis minority populations in the U.S. might be viewed as genocidally criminal under international law” (Churchill, 1994: 14). When the US did ratify the Genocide Convention, President Ronald Reagan, as instructed by the Senate, deposited a “Resolution of Ratification” adopted on 19 February, 1986 (the Lugar-Helms-Hatch Sovereignty Package), with the UN Secretary-General in November 1988. A reservation article in the “Resolution” stated that nothing in the Convention authorised legislation or action by the USA which was prohibited by the Constitution of the USA as interpreted by the USA (Churchill, 1994: 17). As Churchill (1994) observes, the exemption sought by the USA as is demonstrated by this action, translates into an attempt to “elevate the U.S. Constitution to a status above that of the Laws of Nations”. The USA, therefore, through its “Resolution”, believes it retains the right to engage in policies

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22 According to Churchill (1994), this Convention, drawn up on 9 December, 1948 as UN GOAR Res. 260A (111) went into effect on 21 January 1951. It specifies five categories of activities considered to be genocidal. Only one of these involves outright killing. See “Bringing the Law Home” in Indians Are Us? Culture And Genocide In Native North America, p. 11-63 for a brilliant and illuminative revelation of non-compliance by the USA with international law.
which might be viewed by some as being genocidal. This exists despite the international nature of the Convention on Punishment and Prevention of the Crime of Genocide. It is within this context that USA trade wars and unilateral decision-making within the ambit of NAFTA and GATT/WTO are best apprised.

1.7. For The “Good Of Humanity”

The WB/IMF and GATT/WTO do not have the interests of four-fifths of the world as their concern. There exists ample data to indict these institutions\(^2\) for the suffering foisted on the majority of the earth. Forced to live in degraded poisoned environments or to relocate under military threat, millions of Peoples of the South have been reduced to living deaths. Conveniently, megaprojects undertaken under WB/IMF instructions ensure that the spiralling debt of the South will never be paid, assuring corporate capital unimpeded access to coveted resources. As Isla notes however, the practices of these institutions, inherently hostile to the South, threaten the world. These same initiators of misfortune now proclaim themselves to be engaged in conservation of biodiversity through debt-for-nature and debt-for-equity swaps managed through the World Bank’s Global Environment Facility (GEF)-

The intervention of these institutions is accelerating the ecological, social and political crisis prevailing in almost all the world. Survival of the planet is becoming another way to justify a new wave of interventionism into Third World peoples’ lives. The experts who used to look after economic growth now claim to be presiding over survival (Isla, 1995: 3).

This shameless posturing hides the true motivation behind the “survival” mission which has now become another project subsumed under the “white man’s burden”. In advancing into

\(^2\) See, for example, A People Damned: The Impact of the World Bank Chixoy Hydroelectric Project in Guatemala (1995).
the farthest "frontiers" to salvage for the "good of humanity", transnationals have been assisted by the aforementioned institutions to gain ownership of the remaining resources of the South.

Disturbingly, where "conservation" is occurring, plant diversity is disappearing and human beings are being visited by "unexplained" diseases. The militarisation of Nations of Indigenous Peoples and deaths due to "new" diseases in communities in the South are being revealed, little by little. Tellingly, those engaged in the work of "conservation" have not seen fit to bring to the attention of the world the disappearances, deaths and tortures which are mounting in those communities which are being visited by scientific expeditions. Contradictorily, the state-of-the-art technology with which these researchers are equipped in their conservation projects is not utilised to inform the world of atrocities in the South. Interestingly, the technological machinery of the scientists allows for the immediate filing of patent claims in the North and the transference of information on the Blood of Indigenous Nations and other communities of the South to military databases. Clearly, biocolonialism and biopiracy are the driving forces supportive of the expeditions of the conservationists. Feminists have long assessed and anticipated the end results of this wave of plunder and piracy-

Geneticists are busy everywhere mapping the genetic pool of humans, animals and plants . . . I should not be surprised if, in the near future, a whole new range of diseases were to be declared. The ideology of both eugenics and sociobiology will provide the criteria for what will be understood as 'healthy' and what as 'defective'. These new hereditary diseases will provide a large market for gene therapy and prenatal diagnosis. The aim of this whole enterprise is to adapt the human being to survive the destructions which *Homo faber* and technological progress have wrought on the environment (Mies, 1993: 185).

Industrial society, as Mies observes, is based on "the ongoing conversion of nature into cash and industrial products. ..." (1993). This theorist goes on to say that the modernisation
on which the European nation-state is premised, and the concomitant growth of science, medicine and economy, have been accompanied by structural violence up to the contemporary period. In what Mies terms the “blood-trace of White Man in the colonies”, she recounts how social Darwinism justified the brutalities levelled against Indigenous Nations by the European colonisers. Considering themselves to be of an “advanced civilisation”, Europeans saw the extermination of Indigenous Peoples as being necessary to further the “progress” of the superior race. With respect to the Human Genome Diversity Project, the same rationale has persisted for beyond 500 years-

Indians, savages, natives may be killed by White Man because they are doomed anyhow to disappear from history, they cannot withstand the onslaught of progress and white civilization. The logic of the connection between annihilation and progress, brutality and civilization, barbarism and emancipation is the same as it was in the eighteenth century. Annihilation of tribal people is justified simply by the right of the stronger one (Mies, 1993: 148-149).

The current vaunting of science and technology as neutral global solutions to ecological and developmental crises in the post Cold War era is fraught with danger, made visible through an uncovering of the web of connections existing between institutions - educational and transnational - and agents, both covert and overt of US policy - (the WB/IMF consortium, the US Department of Defense, the US Department of Agriculture, the US National Institutes of Health (NIH) and the US Food and Drug Authority), to cite the most prominent examples.

The aim to harvest the biodiversity of the entire earth has been described in scientific circles in the US as paralleling the vision of John F. Kennedy to “place a man on the moon and
return him safely to earth”. Further, invoking the error of delaying such a project, designed, comparably, “to conquer the seemingly unattainable”, it is determined that, as a matter of scientific priority, where, in a time of “crisis”, there will be “no second chances”, the study of the “species of an entire planet” is a matter of practical and intellectual concern in the face of “extinctions” and disappearing species (Wheeler, 1995: S27). Those who destroy have now undertaken, by their own self-nomination, as an extension of the white man’s burden, a mission to conserve for future generations. Yet, the governing logic of Western development has been the thrust to exploit for the maximisation of capital with no concern for the capacity of the earth to renew itself. Deconstruction of the survival rhetoric being employed to veil the true nature of the concern for “extinctions” makes it clear that biotechnology is the latest developmental paradigm being forced on the South to continue and accelerate the plunder of the past.

The “conquest” of biodiversity is akin to the conquest of colonies. Indeed, biotechnology, the agent put at the disposal of the furtherance of this “conquest”, echoes, in its strategies, terminology and purpose, preoccupations of a militaristic enterprise. It is hardly a matter of coincidence that the proponents of biotechnology cite security as a factor governing the determining of sites toward which planetary salvaging is directed. With the demise of the Soviet Union, uncontested colonisation of the Americas and the appropriation of all existing resources is essential to the restoration of US hegemony. The biotechnology experiment executed revealingly through the Human Genome Initiative, is more accurately problematised through an approach which engages with this “scientific” missive in full recognition of what its directive is - in reality, it is a mechanism to further US policy which, with respect to the
Americas, in this historical conjuncture, is premised on colonisation, conquest and genocide. The doublespeak public relations campaigns being conducted by the scientific community, involved in justifying plant hunting in the conveniently constructed “global commons”, cite, time and again, a number of compelling reasons for their efforts to study the “origin and diversification of species on an entire planet”. These are: A shortage of existing data and understanding of biodiversity; a growing rate of species extinctions; irreparable environmental damage and strain on the “carrying capacity” of the planet as a result of the “population explosion” of the South.

The severity of environmental damage on account of transnational activity, World Bank mega-projects and IMF-imposed policies, taken together with the impact of global warming, on account of unabated industrial practices of the developed world, have been shrewdly assessed by the North. At the 1995 meeting in Montreal of the Working Group 3 (WG3) of the UN Intergovernmental Panel on Climate Change (IPCC), a number of OECD economists presented disturbing views on how the lives of those in the South are valued, vis-a-vis others in the North. They opined that “15 lives in the poor South . . . equated to one life . . . in the rich North”. Recalling the similarity between this approach and the proposition by World Bank Chief Economist, Lawrence Summers, that, life being cheaper and shorter in the South, it was justified to export toxic materials there as a matter of “economic efficiency”, Raghavan (1995) implies that the industrialised world feels no compunction in its brazen stance tied in directly to the process of globalisation and the new world order. One of the official WG3 economists at

24 Industrialised nations with one-fifth of the world’s population produce two-thirds of the gases that increase global warming. They emit more than 85% of the chlorofluorocarbon(CFC) gases associated with depletion of the ozone layer. They are responsible for most of the sulphur dioxide and nitrogen oxide emissions that cause “acid rain”. See Third World Atlas for more details.
the Montreal meeting held from 11-13 October 1995, was Samuel Fankhauser of the World Bank-run Global Environment Facility (GEF). The GEF was created in 1990 by the World Bank with a donor-controlled program beginning with $1.3 billion (US). Intended to support conservation projects, the GEF works in the interests of donors who view the South as the final "frontier". With OECD support, the GEF, despite opposition from the Group of 77 and China, has been trying to have itself institutionalised as the permanent structure to operate the financial mechanism of the Convention on Biological Diversity (Ling, 1995). At the Montreal meeting, the OECD representatives, in their proposal for environmental restoration, tellingly articulated the view that the OECD position is that it will be easier to rectify environmental degradation in twenty years rather than in the present. Could it be that the

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25 The Group of 77, comprising of over 120 members, overlaps considerably with the Non-Aligned Movement (NAM). The Group originated as the "Caucus of 75" when 77 countries of the South prepared for UNCTAD I in Geneva, 1964. The Group of 77 remains, according to Third World Atlas (1994), the "principal comprehensive Third World voice on economic matters". Within the Group, a core sub-group of 24 (8 each from Africa, Asia and South and Central America) exists.

26 The Convention of Biological Diversity was opened for signing in June 1992 (after 3 years of negotiations) at the United Nations Summit Conference on Environment and Development. The Convention came into force in November 1993. The first meeting of the Conference of the Parties (COP) - the 106 countries - which ratified the treaty, took place in the Bahamas from 2 November to 10 December 1994. At this meeting, the United States participated fully, without voting privileges, due to its non-ratification of the treaty, like some other 27 countries also in attendance. (Ratification is necessary before participating countries become full contracting parties under international law). The objectives of the Convention are: - the conservation and sustainable use of biodiversity: the equitable sharing of benefits derived from the use of genetic resources (Ling, 1995).

27 In attempting to institutionalise the GEF as a permanent structure, the OECD countries have warned that potential donors to the GEF need "certainty in light of replenishment negotiations which will begin in late 1996". The Group of 77 and China have maintained that the GEF should be retained on a temporary basis according to its original terms of reference which stipulated that "... the GEF was designated to be the financial structure on an interim basis until the first meeting of the COP provided that it was fully restructured according to the provisions of the Convention". At the Bahamas meeting, the Group of 77 and China pointed out that the GEF had failed to put itself under the authority of the COP, as required by the Convention. These countries expressed dissatisfaction with GEF's biodiversity activities so far and with proposed financial assessments in which some countries of the South are required to make larger contributions than some from the North (Ling, 1995). What is foreboding about the push by OECD countries is that they envision, unproblematically, the World Bank as being responsible for biodiversity and conservation in the South. When taken together with the fact that the World Bank itself had attempted to appoint itself as overseer of the genebanks of the world, this becomes quite worrisome.
expectation is that there will not be a South to speak of in twenty years? Under the guise of “conservation”, the World Bank has now extended itself into the business of “survival”. Countries of the South have been sucked into the conservation mission through debt “forgiveness” and debt-for-nature swaps. A new wave of private capital is being issued to the South to construct buildings and to purchase appropriate technology in the service of the conservation projects. Payments in respect of the services of Northern experts contracted to advise on, repair and maintain the new technology is adding to the debt burdens of the South. Biotechnology is the new paradigm of neo-colonialism, guaranteeing the continued indebtedness of the South and the appropriation of its resources by the North. The future role played by the GEF, if it fails to operate under the jurisdiction of the COP, will become more illuminative in this regard.

In 1994, one in four prescription drugs used in the US was extracted from Southern plants, boosting the pharmaceutical industry to the tune of $60 billion (US) a year (Eisner and Beiring, 1994: 95). The race to colonise in the quest for biodiversity is more accurately analysed within the context of the jockeying for hegemony and accumulation on a global scale. Aggressive strategies toward this end, barring direct initial military intervention, are being unleashed on those whose lives are “cheaper and shorter”, and being pushed to “extinction”. As a result of the mechanisms of extraction associated with biotechnology, ideologically more an agent of security, surveillance and defense than a technology of survival, the destruction of the land and the lives of peoples of the South has been occurring at a faster and faster rate.
1.8. The Myth Of Development

Development strategies take as a given a linear understanding of history which assumes that the standards to be emulated and achieved arise within European industrialised countries. The catching-up view of development has been criticised by theorists such as Frank (1978), Amin (1974), and Rodney (1972), among others, who have illustrated that the problems of "underdevelopment" stem from the unequal exchange between North and South on account of historical relations attributable to colonisation and exploitation. The catching-up development which the North proposes for the South has already created untold environmental and human suffering in the industrialised countries, yet, the model of unlimited growth is presented as "a kind of universal law" (Mies, 1993). The North, according to Mies, lives in a state of schizophrenia, hoping to have its cake and eat it, too. There, the belief is that material goods equate with high quality of life, despite the accelerating conditions of disease and degradation which unlimited growth has spawned. The accumulation model of Western industrialised countries rests on the foolhardy premise that the earth's resources are limitless. Herein lies the crux of maldevelopment. For the South, catching-up is a myth, because the North experiences growth only because it keeps shifting the ecological, economic and social costs of its development onto those countries with which it maintains colonial relations. This relationship, according to Mies, is characterised by dominance, exploitation and oppression. It must be added that the development on which growth in the North is premised is based on racism towards the South, in which peoples are viewed as being significant only insomuch as they contribute to the accumulation of capital in the metropoles of the advanced capitalist economies-
The logic of this accumulation model, based on exploitation and colonizing divisions, implies that anything like ‘catching-up development’ is impossible for the colonies, for all colonies. This is because just as one colony may, after much effort, attain what was considered the ultimate in ‘development’, the industrial centres themselves have already ‘progressed’ to a yet more ‘modern’ stage of development; ‘development’ here meaning technological progress ... This catching-up policy of the colonies is therefore always a lost game. Because the very progress of the colonizers is based on the existence and the exploitation of those colonies (Mies, 1993: 59).

The oppressive, racist nature of development as framed from the perspective of the growth model of accumulation is powerfully apparent through the biodiversity conservation projects underway in regions of the South. While resources have always been plundered historically, advances in biotechnology are allowing the biodiversity and the living cells of the Peoples of the South to be owned and controlled by the North. Which nation-state in the South is attempting to take out a patent on European males following the development practices of the North? But, in the USA, in 1995, the Secretary of Commerce has informed Indigenous Nations that the cell lines of a Guaymi woman and a man from Papua New Guinea can legally be owned by the government of that country. The development to which the North subscribes is racist, repugnant and undesirable. Taking into account the ecological consequences of the consumption of the North, where, for example, the USA, 6 per cent of the world’s population, consumes 30 per cent of all fossil energy produced, Mies ponders what would be the consequences if the 80 per cent living in the South were to consume on the same scale. For comparative purposes, she relates that the consequences of the unlimited growth model are readily apparent in the USA where “there seems to be an inverse relationship between GDP and the quality of life”. In this country, as in other industrialised economies, pure water, clean air and healthy food are scarce commodities. Indeed, a change in the consumption patterns of the
North will assist recovery in some of these areas. Growth does not, therefore, equate with quality of life. Yet, the myth of catching-up is the basis on which the WB/IMF and the North continues to ensnare the South into reinforced colonial relationships. This done, the North, assured of the maintainance of colonies to be exploited, can proceed in its pursuit of even more growth. The entire earth suffers. The colonised, by continuing to contribute to the North’s vulgar growth model, is also deeply implicated in this destruction.

1.9. Racism, fascism and the rise of eugenics

Mies (1993) tells that the Age of Enlightenment in the eighteenth and nineteenth centuries, bound up with the colonial expansion of Europe, is also associated with growing racism. In 1830, Hegel, the German philosopher, stated that Africans were savage and unruly. In the latter part of the nineteenth century, Darwin’s theory of evolution, offered that “superior” societies evolved over “inferior” ones because the latter were unfit. Ideas such as these gave rise to the eugenic movement started by Darwin’s cousin, Francis Galton. Galton merged the ideas of Darwin and Malthus to advance the concept of “selective breeding”. To prevent the deterioration of the race, the fit should breed more while the unfit should breed less. Hitler’s compulsory sterilisation law of 1933 was applauded by the eugenicists. The collapse of the Third Reich saw eugenics fall into disrepute. However, many leaders in this movement moved into the newly created field of population control and family planning after World War II.28 Mies warns that although it was easy to denounce the genocide associated with the

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28 Mies relates in “New Reproductive Technologies”, pp. 174-197 in _Ecofeminism_, as one example, that Professor Hans Harmsen (associated with the compulsory sterilisation of differently abled people in Nazi Germany) joined the population control establishment at the end of the war. He founded the German branch of the International Planned Parenthood Federation (IPPF). Harmsen, who became president of this institution, played a critical role in shaping population policies in the South.
Germany of Hitler, “few people can discern the genocide that stalks under the banner of eugenics... fewer are prepared to decry it as fascist”. Interestingly, in Ontario, the police forces have just been given an expanded laboratory for the processing of the DNA of criminals. The influx of Neo-Nazis into the military, as in the Canadian Airborne (Canada’s infamous peacekeepers in Somalia), and the police force, gives us cause to wonder. Whose interests are being served and protected when white supremacists find welcoming positions in the forces of law and order? Anti-Racist Action (Toronto) tells how close to home racism is being manifested in the ranks of those forces with a newly expanded DNA laboratory—

... Wylie Sheridan, along with several RCMP officers, attended the “Good Ol’ Boys Roundup”, in Polk County, Tennessee in May of 1995, an annual all-white and all-male gathering of law enforcement personnel from all over North America. ... Wylie Sheridan is the only 51 division cop confirmed to have attended this racist hoedown. ... 51 division is garrisoned right in the heart of Regent Park, a lower-income neighborhood in Toronto’s east end with a large community of African and Caribbean families, where the officers that occupy that ‘hood’ have a horrendous reputation for beatings, killings, and false arrests of Black residents, as the siege in August of 1995, when over 100 officers from all over the city were deployed to arrest three unarmed Black youths who were brutally beaten, maced, and subjected to racial insults. ... (Anti-Racist Action, 1995: 3,4).

As a point of interest, it must be pointed out that Sheridan is still being paid to serve and protect. On account of the coming to light of actions such as have occurred in Ipperwash, Regent Park, Tennessee and Somalia, racists and fascists in the armed forces ought to be disciplined or/and ejected according to anti-racist “rules of engagement” governing employment. On the contrary, as I point out elsewhere, those credited with having undertaken
the most dishonourable, deranged, racist deeds have often been rewarded. Others now assume positions at the UN and at NATO.  

1.10. The creation of science: Taking death as its point of departure

Maria Mies (1993) has argued that industrial capitalist-patriarchy is based on colonising dichotomies between man and woman, man and nature, metropole and colony, city and village, nature and culture and so on. As industrial society develops, she states, structural violence severs woman, nature, colony and village from the whole, transforming each other into the “other” to be exploited for the benefit of man. Mies advances that the “new” women’s movement is credited with having made visible the deeply ingrained structural violence of industrial society manifested through rape, pornography, sexual exploitation and sexism. Thus, configuring capitalist-patriarchy in the developed world is the force of violence evident in the treatment accorded to women and non-Europeans.

Carolyn Merchant (1983) has made a direct link between the violent witch hunts in Europe and the rise of Western science and medicine. This period in the Middle Ages (associated with the infliction of pain, suffering and death on countless numbers of women) is horrifyingly the period in which the European nation-state was being constructed. Violence and death allowed for the development of science, economy and medicine.

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29 See The Saturday Star, 14 Sept. 1996, p. A1 and A32, where it is reported that Bob Fowler, former deputy defence minister and now Canadian ambassador to the United Nations, or Adm. John Anderson, chief of defence staff of the day, now relocated to Brussels with NATO, had “likely” instructed the defence department, according to Col. Geoff Haswell, the “only officer charged in a document-altering scandal at National Defence” to “sit on” information concerning the killing of Somalian Shidane Arone for “at least another two weeks”. Another interesting turn in events concerning the three and a half year inquiry into the activities of the Canadian Airborne in Somalia reveals that the withholding of information on the death of Arone might have been connected to the run-up by Kim Campbell, then Minister of National Defence, for leadership of her party. Campbell, who became Prime Minister shortly after the death of Arone, is currently Canadian consul-general in Los Angeles.
Both Mies and Merchant are correct in their assertions. Like Mies, I contend that the violence on which industrial society is premised, is located in conquest, colonisation and slavery, beginning in the 1400s and lasting for almost four centuries. The brutality of the centuries associated with the decimation of the Indigenous Peoples in the Americas and the enslavement, imposed transmigration and forced labour of Africans is unprecedented. Genocidal forces unleashed by Europeans termed the latter the triangular trade. There are many parallels between this trade and contemporary free trade. As Europe developed, Africa, and the Americas were plundered. Indigenous Nations were decimated within a generation. The indigenous inhabitants of Central and South America, numbering in the vicinity of 55 million in 1492 were brutally reduced to 4 million by 1650. Racism became justified to continue this hell, and, Africans and Indigenous Nations were forced to abandon their cultural beliefs regarding their connections to the earth, to their community and the world of the spirit in order to become “civilised”. More and more colonies were seized and fitted out with Africans who became recipients of “civilisation” through force and brutality. This, in essence, was the “white man’s burden”. It is on account of this - the colonisation of Indigenous and African Nations - that the severance of which Mies writes, emerged. To further continuous and unquestioned capital accumulation and development in the metropole, the white man’s ideology sought to supplant indigenous understanding of the meaning and purpose of life. The denial of what Shiva calls “nature-based societies” was fundamental to the uncontrolled furtherance of exploitation and domination (1993: 266). The mission of patriarchal-capitalism, spread through the agents of science and religion, has been to decimate, exploit and reap profit. Of this,

The earth and the South have paid heavily for 500 years for the white man’s burden. Probably the most significant step in striving toward re-
establishing an earth community is the recognition that the democracy of all life is inconsistent with the idea that this beautiful planet is the white man's burden... we do not carry the earth; the earth carries us (Shiva, 1993: 276).

European education and religion attempted to sever African and Indigenous communities from the beliefs of their ancestors. These institutions, themselves, operated through violence and brutality - the children of indigenous parents were forcibly removed from their homes and taken to mission schools where the guiding tenet of the curriculum was to obliterate all aspects of their culture, history and self-esteem. Whether female or male, further violence through sexual assault, rape and psychological terror conspired to subdue the flower of youth to become victims of the white man's sexual aberrations perpetrated through force on powerless children and vessels of the white man's learning. Like the enslaved Africans and their descendants, Indigenous Peoples were forced to abandon their ceremonies - termed "devil-worship" - under penalty of the law. Were this to have occurred - that is, the abandonment of an understanding informing their purpose and cosmovision - planetary destruction would have been much farther advanced than it is, even though the global situation is currently extremely grave. Each time Indigenous Nations give their lives to protect the earth, other people, including the oppressors, benefit from being able to live in a less diseased environment. Yet, the oppressive forces of capital continue to invent newer strategies under the guise of "development" to acquire the land. The violence of which Merchant speaks was firstly exerted by European men in the colonies where land appropriation went hand in hand with the introduction of religion. The former, being tied to monoculture, hastened the destruction of crops and plants which had been used for centuries for food and spiritual ceremonies. Healers
and priests, formerly held in high esteem, who knew the planting seasons linked to the cycles of the moon, were removed from their respected community standing and villified. Their familiarity with medicinal and ceremonial plants and their ability to cure were termed the practices of magic, and their tradition of mediating between the world of the spirit and the living was banned by the laws of the newcomers. The colonising dichotomies which Mies forwards, are evident in this quest for territory. What is taken rapaciously, even as it is unavailable for purchase, becomes an object to be drained as one might a cup of water until it is empty. Then, the cup is thrown away and other cups are sought after. For those who hold the soil as sacred, however, the bond connecting the part to the whole - their lives to the earth - continued to be maintained. This philosophy is antithetical to that of colonisers and capitalists, in the contemporary period, perhaps even more so than in the years associated with European penetration in the Americas. Subscribing to a world view which is premised on violence and severance, capitalists and colonialists view Indigenous Nations as impediments to “progress”. As the last “frontiers”, the rich resources of Indigenous Peoples are much sought after. In North America, Ward Churchill (1992) tells how extensive these resources are. It is the need to acquire these cups, having drained and discarded all others, which makes the acquisition of these resources urgent and important. With this in mind, I argue that, in the context of the Americas, NAFTA has been constructed to make this land “freely” available for exploitation. Since Mexico’s induction into NAFTA, posted in the territory of Indigenous Peoples is one member of the Mexican army to every three residents of Chiapas. Force and violence constitute the cornerstone to conquest and development today, carrying on in a tradition invented

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30 The reservations in the USA are rich in uranium, coal, oil, natural gas, copper, zinc, iron, gold, bauxite, nickel, zeolite and molybdenum. See Struggle for the Land for a detailed picture.
centuries ago by Europeans intent on acquiring colonies to enrich the metropoles. That time proceeds in a circle is painfully apparent.

The death of the “witches” of whom Merchant speaks was central to the rise of Western medicine, but the brutality of this program is more accurately understood through an understanding of the encounter of the European male with African and Indigenous Nations in the colonies. Oral history tells that those who led revolts against the colonisers were, in the main, practitioners of traditional medicine and spiritualists. Although Western medicine freely appropriated herbal knowledge from Indigenous Peoples and Africans in the Americas, European records have failed to acknowledge the “scientific” debt to indigenous knowledge and the proponents of herbal remedies. Attempts to control the trade in spices, whether from India or the colonies, was not without purpose. Having extended their knowledge of herbs and spices, and, having been exposed to the efficacy of the remedies of healers, Europeans saw how they might extend their primitive medical knowledge, building on what they had learned from the colonised. Secondly, to establish themselves as the only knowers, those from whom they had learned had, in their minds, to be denied the right to cure others. As I have mentioned before, ceremonies and traditional religion were criminalised in the Americas. Traditional healers were demonised and castigated. Spiritual Indigenous leaders were burned to death or brutally executed. Fearing that the women healers in Europe (many of whom must have been of African ancestry, related to the migration of Peoples from North Africa to Granada, Andalucia and Alhambra, and quite possibly part of a larger plan to eliminate the African presence from Spain and elsewhere) might prevent them from becoming the sole practitioners of medicine, on their return home, European men unleashed the same violence and brutality against those whom
they perceived might deter their continuous acquisition of capital, utilising knowledge gained freely in the colonies. Although this debt has never been acknowledged, it is obvious that science and medicine is well aware of the contributions of indigenous knowledge. If this were not so, why is it that every single plant “expedition” currently underway is seeking to tap this knowledge? Some of the plant hunters, even more blatant in their avariciousness, are seeking to claim ownership to all indigenous knowledge, both present and future, as expressed to them. Others, shamelessly, have established “shaman apprenticeship” programs to “train” themselves along the lines of an indigenous healer. Given the foundation of death and violence on which European development and science are constructed, these “expeditions” are foreboding, particularly in view of the fact that the contemporary “witch hunts” have already begun. As the knowledge of Indigenous Peoples is documented, doctors in the North who also practise traditional medicine, are being deceitfully terrorised and ridiculed by the science establishment. Some in Canada, are currently defending themselves in court. As the cycle of time continues, who will be next? Will the student “shaman apprentice” become like the visitor to the Americas, (who, being a guest, was treated as custom dictated), whose intention was always to seek after gold? Will new icons and ideologies be constructed to justify the replacement of the teachers when the cup of learning has been drained dry? Vandana Shiva offers an analysis which sheds light on some of these questions, showing the association between the scientific “thirst” after indigenous knowledge and desacrilisation. Indigenous knowledge is being prepared for “consumption”.

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31 Dr. Josef Krop and Dr. Guylaine Lanctot are well-known cases in Ontario and Quebec, respectively.
Development builds new ‘temples’ . . . Development has converted soil from sacred mother into disposable object- to be ravaged for minerals that lie below, or drowned beneath gigantic reservoirs. The soil’s children too have been made disposable: mines and dams leave behind wastelands and uprooted people. The desacralization of the soil as sacred space was one essential part of colonialism then and of development now. As Rifkin has so aptly stated, ‘Desacralization serves as a kind of psychic ritual by which human beings deaden their prey, preparing it for consumption’(Mies and Shiva, 1993: 106).

1.11. The development of science: the science of development

The feminist critique of science has taken up natural sciences particularly in connection with reproductive and gene technology, uncovering the linkages between the development of procedures premised on force and the promotion of these “neutral-free” constructs as a method for the achievement of a laudable form of development. Merchant (1983) has theorised that modern science is based on the “destruction and subordination of nature as a living organism”. Taking this point even further, Merchant posits that the scientist dissects nature into its smallest elements, in order to recombine it into new machines which obey “his” will. At the end of this process, which essentially is one of confrontation and violence, Nature is reduced to dead, raw material. Evelyn Fox Keller (1985) speaks of the psychological need of patriarchal science to dominate Nature perceived as an evil, dangerous female. What the fathers of science seek after is the power of creation which lies within women and within Nature. In order for this control to be effected, women and nature must be rendered lifeless and controllable. As Mies states, however, the works of scientific patriarchy threaten the foundation of all of our lives on the earth. Contradictorily, the “value-free disinterested pure science” of this project identifies historically and readily with militaristic, economic and political interests, as funding
sources reveal. Thus, Mies reveals, “violence and force are therefore intrinsic methodological principles of the modern concept of science and knowledge”. The militaristic application of science to further a development of aggression is perhaps best exemplified by the USA in its obsession for “weapons of peace” and its “war on drugs”. Agreement to the latter and to the extradition of Southern “criminals” to be tried by the USA in their courts has been foisted on countries of the South as a pre-condition for entry into NAFTA. Possibly, the aim is to introduce a military presence into these countries to test the efficacy of some of the weaponry of “peace” and to conduct experiments with some of the chemical and biological arsenal of the USA.32 Warren Cristopher’s33 visits to countries in the South, when assessed together with the “Shiprider Agreement” 34 which some CARICOM countries have already individually signed, pose ethical and political concerns. The military of the USA is outstandingly the world’s most prominent destroyer of the environment. The USA now wishes to ensure that they have access to those countries of the South which have managed to elude occupation. The pre-accession clause signed by all countries of the Caribbean and South and Central America enable this.

32 See “Clinton intensifies war on drugs” in The Globe and Mail, 25 Sept. 1996, A10, where it is reported that US President, Bill Clinton, has announced his intention to give $112 million (US) worth of military equipment and training to the Caribbean, Colombia, Mexico, Peru and Venezuela to fight the “war against drugs”.
33 US Secretary of State.
34 The contentious “Shiprider Agreement”, which allows the USA to “pursue drug traffickers” into the airspace and territorial waters of signatory countries, has already been signed by Guyana and Trinidad-Tobago. At a recently called emergency meeting of CARICOM in Barbados, the leaders of Barbados and Jamaica raised their special concerns with respect to the agreement. Prime Minister Owen Arthur of Barbados felt that the “…unilateral deportation of criminal Barbadians by the US” should also be considered in the war against drugs. The Jamaicans, “under threat of decertification by the US authorities which would result in a cut of aid for anti-drug trafficking programmes”, expressed that they wanted to place limits as to how close to their shoreline the Americans could get. Neither country was opposed to the signing of the Agreement. The Barbadians, however, who have not yet signed, have been granted the lowest possible grade for their airport (possibly the best in the English speaking Caribbean) by the US Federal Aviation Administration (FAA). This is the first time the USA has rated the Grantley Adams International Airport. It goes without saying that the presence of the USA military forces in the airspace and territorial waters of the Caribbean raises special implications with respect to Cuba and, overall, with respect to the sovereignty of all signatory nation states. See “Guyana Extra”, a special pull-out in Indo-Caribbean World, Vol. 14. No. 8, 18 December 1996.
The collusion between the scientific community and business leaders ensures that each seeks the interest of the other as a matter of foreign policy, whether implicitly or explicitly. It is interesting to observe that advocates of space weaponry refer to laser technology, “killer” satellites and other missile-killing technology as a “high frontier”. The cold, sobering facts of defense in the USA do not augur well for the fate of the planet. Those who profess a “neutral-free” science seem particularly bent on earth’s destruction. In his Star Wars missive, Ronald Reagan saw fit to invite, on one occasion, fifty-two scientists and national security experts to discuss his plans. One of the invitees was David Packard, co-founder of Hewlett-Packard Co. and a longtime advocate of antiballistic missile weaponry (ABM). Hewlett-Packard was one of the transnationals lobbying to get intellectual property rights in the final Uruguay Round of the GATT agreement. This corporation surfaced in Switzerland at the 1996 World Economic Forum where transnational pharmaceutical and telecommunications companies told “world” leaders how the global economy should be run. Along with the ideas espoused by Bill Gates, their plan to solve the economic destruction evidenced globally revolves around the opportunities related to telecommunications. Forebodingly, at a forum for “world” leaders, the discussion on poverty, hunger, the earth, homelessness, France’s racist nuclear colonialist terrorism and the extraction of surplus from South to North took a backseat to the promotion of technology, business and science for the entire world from a USA perspective. At the same event in Switzerland, James Watson, Nobel prize winner for his work on DNA, told the World Economic Forum that medicine and health are in for big changes in the next decade. He predicted that, with the completion of the mapping of the human genome in the next seven years, “new forms of intervention” would manage or cure diseases. The war on drugs in the
South has opened up all of the Americas south of the USA into a gigantic experimental camp where human genome research might be undertaken by the military and the pharmaceutical transnationals migrating to the region under the NAFTA arrangement. Watson’s confidence is grounded in reality. Even as he acknowledged that “medical research will become increasingly controversial”, and that there is a fear that “a dictator would try to create two classes of people, slaves and an elite”, Watson concurred that “scientific progress will make life better for more people” and that “we will have to rely on human wisdom so we don’t let technology get out of hand”. One wonders if this “human wisdom” is that of ordinary people who constitute the majority world - the poor, the dispossessed, the aged, women, Indigenous Nations, the homeless, peasants and children - or, rather, that of European male scientists? Further, this technology is already way out of control, and, yet, the scientific position is for a minority to forge ahead whilst informing the powerful countries of the ability of biotechnology to conquer the disease “frontier”. Watson was invited to head the Human Genome Project in the USA. His partner, H.C. Crick, who was a joint recipient of the Nobel Prize is known to have expressed views associated with eugenics, leading towards the improvement of the human race. Crick, the record states,

"discussed eugenics and genetics at a symposium of biological scientists. He toyed with the idea that the government might use food additives to control fertility. Then licences granting the right to bear children could be issued to worthy citizens. The British geneticist explained: “I do not see why people should have the right to have children . . . if one did have a licensing scheme the first child might be admitted on rather easy terms. If the parents were genetically unfavourable, they might be allowed to have only one child . . . “(Doyle, 1991: 25).
The US Congress approved $3 billion (US) toward the 15-year Human Genome Initiative in 1991. This Project expressed its intention as being to internationally map and sequence all human genes. Coming on the heels of the 1990 Gulf War taken on by the Bush Administration to "liberate" Kuwait, the timing of this "international" mission is a pure expression of the thirst to consolidate American global expansionism. The Initiative has been constructed to allow for the free range of genetic manipulation on specially selected human guinea pigs in officially sanctioned experiments in research centres. The approval by the US Congress to spend billions of dollars is best understood as an investment in defense and security. Glorified as the Western solution to cure all the diseases of the world, the Human Genome Initiative exemplifies the relationship between science, patriarchy, colonisation, capitalism and violence. The spinoffs in economic rewards granted to those quintessential internationalists - the transnationals, particularly those engaged in pharmaceuticals, information technology and knowledge production and misinformation - guarantee that this "international" project will receive private sector support and funding in view of the fact that the US government has worked aggressively through GATT/WTO, NAFTA and the Enterprise for the Americas Initiative to ensure that "favourable" climates exist in the South for colonial expansion, resource exploitation and investment. Given the locales within which this Project arises, therefore, biotechnology must be thoroughly deconstructed and made visible as it seeks to colonise and subordinate, to legitimise relations of power, and, ultimately, to hasten human and ecological destruction in the South.

The militaristic nature of the Human Genome Initiative, sold as the panacea for disease, was not as openly aggressive as Reagan's Star Wars which fell into disfavour with many
factions of the American public. The promise of a cure-all, however, would appeal to most of
the population which was witnessing a surge in “new” diseases and a return, in more virulent
ways, of eradicated sicknesses. Biological warfare was officially initiated in the US in 1943,
resting in the capable hands of George Merck of Merck drug company. Between 1945 and
1969, US military personnel conducted experimental top-secret disseminations of micro-
organisms testing “weaponry” in every ecological area possible - in deserts, in forests, on
savannah, on the Canadian Prairies, in Winnipeg and in San Francisco, among known targets.
The Genome Project must therefore be viewed within a larger framework which allows for the
deconstruction of this US-initiated global venture. In 1987, an alert went out to the university
community from the US-based Committee for Responsible Genetics. In the Committee’s
letter,35 connections were lucidly drawn between science, biological warfare and US
preoccupation with defense. Drawing attention to the quadrupling of funding for biological
research under the Reagan administration, the Committee’s communication is revealing.
Among some of the issues raised herein, with specific reference to biotechnology-

1. The life sciences are being used by the military, not to enhance life, but to
   perfect biological weaponry.

2. Much of the research with military applications is being contracted out to
   universities and private firms. Between 1981-1986 this area of “basic research”
   witnessed a 60% increase in funding.

35 See letter dated 5 November 1987 on pages 210-211 of “On Mars and Microbes: Biological Warfare - Plants
3. The Army was seeking facilities to study substantial volumes of hazardous viruses and biomaterial in the form of aerosols as used in warfare.

Needless to say, the media has not made this letter available to the public, although, almost every day, in the contemporary period, there is a glowing report on the latest gene discovered in the Genome Project’s assault on disease eradication. The Project, however, to echo the Committee, is a covert “biological arms race”.

Mulroney’s Bill C-91, passed in Canada on December 10, 1992, according a 20-year patent protection to the transnational pharmaceutical industry is extremely significant to an interrogation of the 1991 US Congress-approved Human Genome Initiative. Bill C-91 opened the door to Canada’s Medicare, inspiring these TNCs to giddying heights, secure in the knowledge that the approaching NAFTA deal would give them access to walloping tax dollars for research centres, and healthcare monies for health-related services. (The mandatory “second” vaccine for measles produced by Connaught36 and administered hastily in schools in Ontario in February, 1996 and the Hepatitis B shots - to be administered in three rounds - commenced on 15 October, 1996 in a downsizing educational sector raise questions about the linkages between the Ministry of Education and pharmaceutical TNCs). The Human Genome Initiative, with the aid of Medicare, could race ahead, without seeking new funding in the USA, since a portion of its costs would be transferred to the Canadian taxpayer, unbeknowst to the majority of the population. These same Canadians would suffer increasingly from a restructured health care system, antagonistic toward health, but, supportive of a bias toward the genetic

36 Connaught, incidentally, is implicated in the Red Cross Blood Scandal in Canada. It is one of a group of companies which is seeking through the courts to prevent Judge Krever from making public his findings into the inquiry.
basis of disease. With the death of the European Directive on life patenting in March 1995, the Canadian state became of even more significance to US transnationals as the logical haven for the recognition of life patents denied in Europe. Restructured economies in the South, bullied to change their national laws to recognise TRIPs, would ensure that the monetary benefits accorded to the pharmaceutical transnationals would render the European decision irrelevant in the context of the Americas where more and more companies are locating subsidiaries to benefit from the expected profits they plan to reap from patents on life. To top it off, Bill C-91 in Canada would continue to safeguard the TNCs from generic competitors up to six years after the 15-year Genome Initiative’s timespan. By then, it is doubtful whether generic companies will still exist. Besides, the transnational pharmaceuticals have themselves established pseudo-generic companies solely for the purpose of forcing the smaller genuine generics out of the market. This stark reach for profits, power and control over the creation of life, governs the involvement of the TNCs in the Human Genome Diversity Project. Whether it takes the DNA of Indigenous Peoples or their medicinal plants to further this aim is of no consequence ethically, because the powerful American state, through its Congress, has authorised the Initiative, which seeks to appropriate biodiversity whilst eliminating selected populations, silently. In a technical document published in 1994 it was suggested that the US undertake a “mission for conservation biology” in two phases. The first phase of “exploration” would persist for 25 years at a cost of $3 billion (US) per year. It would allow for discovery, curation and database building. The second phase, to allow for the “managing of Earth’s living resources” would involve testing and refinement of hypotheses “in the service of humanity”. Quentin Wheeler (1995) suggests that, given the billions of dollars generated to the “world
economy" on account of resources of a biological nature, this “mission” is a safe investment. Unwittingly, he reveals the true nature governing US preoccupation with, and instigation of such a plan in the following statement—“as populations grow, resources dwindle, and environmental problems multiply, biodiversity shall increasingly become a matter of national security concern” (1995: S27).

In anticipation of future concerns of “security”, however, the USA has secured, through lobbying by a transnational alliance, recognition of “trade-related” intellectual property rights under GATT/WTO. For Indigenous Peoples and other communities of the South, TRIPs signal the ushering in of an extraordinary period in the cycle of time, paralleling in remarkable ways events associated with conquest, plunder and colonisation of the Americas. Indeed, the formulation of TRIPs within the transnational structure announces the intention of corporate capital toward communities of the South. The TNC leviathans have formulated another weapon which they intend to canonise as “international” law to appropriate the remaining resources of the South which have eluded their grasp. This is why all countries of the South have been forced to change their national laws to include TRIPs legislation, as a pre-requisite for accession to NAFTA, even though the World Trade Organisation, the successor to GATT, has stipulated that the South need not change its laws until 1999. In effect, therefore, foreign control by the USA is being effectively imposed under cover of NAFTA through transnational penetration in the South. While the TNCs collect medicinal plants, indigenous knowledge and the DNA of communities of people, TRIPs ensure high returns to the corporate coffers. When Indigenous Peoples protest against the transnational assault on their lands, the US military, anxious to protect the interests of its nationals, is available to maintain law and order. All
economies of the South have been drafted into a “war against drugs” in which, led by the USA, they have agreed to extradite their citizens to the USA to be tried for criminal activity affecting that country and its citizenry. Recent military-led killings in Brazil, Guatemala, Mexico and Peru do not portend well for the cause of justice. The litany of killings, mutilations and disappearances has reached a heightened stage in the Americas as land barons and agri-giants boldly and faceably appropriate the land of Indigenous Peoples. Coincidentally, the genetic information on “sampled” Indigenous Peoples is databased on the US military’s computers. A military presence in all countries with Indigenous Nations is therefore important for the HGDP to be seen to its conclusion. Peasants and Indigenous Peoples fighting for land and self-determination are increasingly finding their territories occupied by local and foreign military forces. In 1995, at Ipperwash in Canada, where Dudley George was executed, the Ontario Provincial Police (O.P.P.) had initiated their assault against Natives buttressed by Huey helicopters, an army tank, bullet-proof vests and so on.\(^{37}\) That they had been forewarned to use full force against Peoples attempting to reclaim ancestral land (as recorded in state historical documents) for ceremonial purposes, seems to be the case. On execution of their duties, the O.P.P. proceeded to produce and sell trinkets and memorabilia related to Ipperwash, with denigrating messages about Indigenous Peoples. Their self-assuredness seems to indicate immunity from the law. The HGDP is an instrument of genocide conceivably known to the highest ranking officials in the US army, the transnational sector and the science establishment,

\(^{37}\) See “RCMP tactics warlike, trial told: Hollow-point bullets used in B.C. native standoff, Mountie testifies,” The Globe and Mail, 8 October, 1996, A1, for an illuminating description, for comparative purposes, of “an RCMP operation, that, at times, resembled a small war” in Gustafsen Lake. At Gustafsen Lake, this “war” waged against Natives claiming the right to sacred and unceded land, chalked up a bill to the tune of $5.5 million(Can.). Some of the equipment deployed by the RCMP, as listed in the article, include: submachine guns, laser-guided bullets, stun grenades, helicopters with infrared cameras, listening devices, telephoto lenses and video equipment, semi-automatic weapons and 2,000 rounds of army ammunition.
all these agents being guided overtly or covertly by US foreign policy and other powerful factions. Perhaps, like the O.P.P., this is why the biopirates are confidently thrusting ahead, surrounding themselves by a web of secrecy bolstered by immunity.

1.12. Scope and Objectives

This project analyses developments in countries of the South and communities of the South in the North within the broad ambit of NAFTA. Existing literature has addressed the poverty, societal upheaval, environmental degradation, removal of subsides and social service cuts which have been the pattern in restructured economies, generally (Onimode, 1988). Limited attention, however, has been turned to the role played by the WB/IMF in preparing economies for the imposition of the program of the North American Free Trade Agreement. It is the governing thesis of this study that NAFTA is first and foremost, a bid to appropriate the biodiversity and resources\(^{38}\) of the Americas. Economic changes occurring in country after country in the Americas have been engineered to create crises suited for the implementation of such a plan. In this regard, collaborators, namely the IMF and the World Bank, elites at home, and weak governments at home, have paved the way for privatisation and transnationalisation to proceed at a sweeping pace, allowing for the appropriation of resources, the elimination of food security and the decimation of the land. Relatedly, this work exposes the biotechnological industry's frenzied undertaking of global expeditions for plants, crops and the indigenous knowledge of traditional healers. Throughout this project, the analysis is anchored to the larger picture, this being the overall intention of the Agreement for the entire region of

\(^{38}\) Implicitly, this study proceeds on the understanding that the knowledge and DNA of Indigenous Peoples are part of these resources.
the Americas. Using this method of analysis, it is my intention to show that the base from which to struggle is from the unification of Peoples and countries across the continent, countering the force which contradictorily, in its conceptualisation of human beings as a mere marketplace, makes little attempt to hide its sole motivation - that of plunder and profit.

1.13. Methodology

This thesis is conceived and structured utilising an interdisciplinary framework. The utilisation of this methodology has allowed for the engagement of different disciplines such as sociology, political science, environmental studies, women’s studies, biology and agriculture within the discussion and analysis. This approach has provided the wherewithal for the deconstruction of concepts and developments such as intellectual property rights and biotechnology. In my coming to grips with the subject of the inquiry, I was struck by the extensive deliberate mystification of these terms by the predominantly male European minority which stands to benefit from public acceptance of the legitimacy of these referents. Through this legitimising process, the hegemony of the developmental paradigm of biotechnology would be assured. Those whose views are disseminated by the mainstream press or who exercise power and control in science and technology have taken pains to paint a picture of biotechnology as being a salve for all the diseases of humanity. Yet, literature from publications like GRAIN, RAFI, Cultural Survival and Third World Network showed the racist oppressive framework on which biotechnology is constructed, linking this paradigm back to eugenics and possibly, a fascist ideology. Disturbingly and forebodingly, the Human Genome Diversity Project, funded by the US Congress and supported by the US military, pharmaceutical
transnationals and universities in the North, confirmed how the accumulation model of growth is based on a white supremacist notion of progress which implicitly concedes that the superior North is entitled to develop based on the appropriation of the biodiversity and living cells of Indigenous Nations of the Americas, and, indeed, the resources of the entire South. Having come across how Indigenous Nations are being turned into sacrifice areas to satisfy the thirst for gold, the research compelled me to turn to as many views, opinions and writings from the Peoples, themselves. I have been richly guided in this enterprise. Listening to radio interviews by Jeanette Armstrong, Debra Harry and Alejandro Argumedro who have been expressing Indigenous Nations' condemnation of and repugnance to the HGDP, has added to my understanding and analysis. The methodology has also rested on vigilance to daily occurrences in the field of science, as reported in scientific journals and the press. I have noted, as an observance, how the stock market in pharmaceuticals derived from the South is growing. News reportage has confirmed that in the North, patients with AIDS, cancer and osteoporosis are being used as guinea pigs to test products which are soaring in value on the stock market. The media has also been observed to have stepped up its portrayal of the South as being disease-ridden by inhabitants who destroy the environment. This representation allows for the racist view of development to be accepted by the masses, even sacrificing the "spreaders of disease" in the South in order that the superior North might be allowed to evolve, and, therefore, salvage the "fittest" of humanity.

In essence, therefore, the method employed has been to undertake reviews and analyses of texts, documents, reports, newspapers and journals. The growing literature on biotechnology and biopiracy is overwhelmingly located in periodicals and magazines. So too, is
a people’s perspective on NAFTA. In short, therefore, this work draws primarily on the written word, heavily utilising, in the main, the rich sources of accounts from the South where documentation and dissemination of NAFTA-related events has served to authenticate, for research purposes, the experiences of Peoples. These sources, therefore, imprint the reality of the South within the text, despite my inability to visit and report on events in the South, this itself being fraught with problems surrounding interpretation. As such, I have found the methodology to be appropriate in allowing for the re-creating of the positions and voices of the South, albeit in an indirect way.

1.14. Organisation Of The Study

The work is structured in eight chapters. Chapter 1 introduces the research problem. It makes reference to the scope and objectives of the study. In Chapter 2, I discuss how the Americas are being reshaped by the forces of capital operating in economies of the South, on a country-by-country basis. I examine how SAPs, TRIPs, and the WB/IMF are being harnessed in order to prepare the way for colonisation to proceed. Chapter 3 looks at the role of education in advancing the intellectual colonisation of the Americas. How this is mediated through the transnationalisation of the school, the university and the restructured health care system is examined. The Human Genome Diversity Project constitutes the subject matter of Chapter 4. I look at the historical antecedents giving rise to this Project uncovering how the resources and living cells of Indigenous Nations are being appropriated to shore up capital in the USA as it attempts to assert global hegemony. The creation of famine and disease was advanced publicly by former President of the World Bank, and former US Secretary of State, Robert McNamara, as a way to control populations in the South. How the WB/IMF-supervised
South is being decimated in both these areas even as more aggressive transnationalisation of the affected economies occurs, is explored in Chapter 5. Chapter 6 focuses on substitutes which are being designed by the North to replace all of the primary commodities produced by the South. While these "forms of life" are being engineered, the WB/IMF consortium is forcing indebted economies to produce cash crops for exports, forestalling the possibility of food self-reliance in the South. How this ties in with the imposition of NAFTA in the Americas is analysed. In Chapter 7, I look at the resistance momentum which is building transcontinentally as people in the South and the North work together to transform the oppressive new world economic order which is threatening the lives of communities in the South, in the South in the North and, indeed, across the planet. This chapter provides eloquent examples of the successful contestation of the global reach of transnationals by communities situated across the earth. Chapter 8 attempts to bring to closure the subject under investigation in this work. Because the lives of the Peoples of the South continue to be threatened by the wave of biocolonialism and bioprospecting which is an intrinsic part of globalisation, this closure is indeed impossible. What I try to achieve in this chapter is to reiterate the urgency of the task which lies ahead, which, if ignored, will hasten the eventual destruction of the earth. As such, I stress the moral urgency of working with Indigenous Nations in order to stem the colonising tide which would sweep all away, eventually. The chapter, and therefore, the document, ends with the reminder that this earth is ours, too.
1.15. Definition of Key Terms

The following terms as used in this thesis are defined accordingly:

*Biosafety Protocol*- An internationally binding legal instrument focusing on safety aspects of transboundary movements of genetically modified organisms (GMOs).

*Biosafety Laboratory 4 (BL4)*- A laboratory for the containment of the most virulent, communicable diseases. Currently, there exist six in the world.

*Cloned Genes*- The process of isolating and multiplying fragments of human DNA or a gene is known as cloning. Using genetic engineering, scientists make copies of human DNA by inserting a human gene or fragments of DNA into cells which may be from a non-human species. These genetically identical cells from a common ancestor are then allowed to multiply.

*Collective Property Rights*- Communal ownership as opposed to individual titles as favoured by the West. The principle behind intellectual property laws is private property. In general, Indigenous Peoples view knowledge as communally owned. The core of the nature of Indigenous communities is based on the value of exchange and sharing. This is fundamental to Indigenous Peoples concepts of themselves.

*Cross-retaliation*- The use of trade sanctions to punish violations of agreements that do not directly govern trade. As such, a country such as the USA, which has a history of cross-
retaliating against others, might impose special tariffs or embargoes on goods from a country which it has deemed to have violated codes governing areas such as intellectual property rights, investment or services. Cars from Japan, for instance, were recently subjected to the imposition of special duties on account of USA cross-retaliation against Japan.

*EAI*- The Enterprise for the Americas Initiative refers to a policy initiative of the USA which was introduced by the Bush administration. The EAI promised to provide minor debt relief for loans owed to the government of the USA. It also expressed the intention of establishing a “free trade zone” in the hemisphere.

*FTA*- An acronym for the Canada-USA Free Trade Agreement which came into effect on January 1, 1989.

*GATT*- The General Agreement on Tariffs and Trade which was established in 1947 was intended to be a part of the United Nations. GATT represented the first step towards the coming into existence of an International Trade Organisation (ITO). The ITO never emerged because the US Congress refused to ratify its charter. There have been seven rounds of trade meetings under GATT, each structured with the intent being to reduce trade barriers among members. On 1 January 1994, the World Trade Organisation (WTO) superceded GATT.

*Gene*- A functional unit of DNA which specifies the composition of a protein. A gene can be passed on from an individual to her or his ancestors.
Genetic engineering- A technology used to alter the genetic material of living cells through direct interference with the genome to make these cells produce substances or perform functions alien to unmanipulated cells.

Genome- The genome refers to all the genetic material in the chromosomes of a particular species or organism. The size of the genome is usually demarcated in base pairs so that, for example, the human genome is gauged at being 3 billion base pairs in length.

Human Cell Line- Human cell lines provide an inexhaustible supply of DNA (the genetic code) of the individual from whom they are taken. A cell line is a sample of cells which is removed from the body of a human. These removed cells are able to sustain long-term growth in cultures in a laboratory. Cell lines are said to be "immortal" because they can be kept alive under artificial conditions requiring the adherence to strict control of temperature, nutrient requirements and sterility.

Intellectual Property- Intellectual Property (IP) refers to a product design, technical process or product which is protected by way of a patent, trademark or copyright. These forms of protection grant the inventor- an individual or corporation, exclusive rights on the invention. Royalties might be earned through the rent of or use of the innovation. The exclusive rights to intellectual property have historically been granted so that society might make progress of a cultural or technological nature. In the past, details of inventions accorded patent protection
were disclosed so that on the expiration of the patent period, the innovation might be reproduced and made available to society.

*NAFTA* - The acronym for the North American Free Trade Agreement. The objectives of NAFTA are to facilitate trade and establish harmonised rules for investment and intellectual property rights among Canada, the USA and Mexico, initially, with the proviso that other countries of the Americas might be included at a later time. The Agreement came into effect on 1 January 1994.

*National Treatment*- The principle of national treatment declares that the same rights, privileges and obligations which are extended to domestic producers must be assigned to foreign producers in countries of the NAFTA bloc. National treatment forbids countries from imposing performance requirements on foreign investors.

*Structural Adjustment Programs (SAPs)*- SAPs refer to a number of policies imposed by the World Bank and the International Monetary Fund as a condition for receiving other loans. Typically, SAPs stipulate the removal of trade and exchange controls, privatisation of state enterprises, retrenchment of workers and the removal of subsidies on basic consumer items.

*Trade Related Intellectual Property Rights*- Intellectual Property Laws grant private ownership over genetic and biochemical products because of “ingenuity” and “novelty” in the locating, identifying and development of products. Introduced for the first time by the advanced
capitalist countries at the Uruguay Round of the GATT deliberations, Trade Related Intellectual Property Rights (TRIPs) were wielded as a weapon with which the powerful North might continue to enforce power over the South. If a country’s IP legislation and enforcement do not conform to the TRIPs agreement signed as part of GATT or NAFTA, it could face trade sanctions and closed markets to its exports. Under the GATT agreement, countries of the South have until 1999 to bring their IP into line. Although Mexico is the only country of the South which is a member of NAFTA, all other countries, except Cuba, have been forced by the USA to change their laws as a pre-condition for accession into NAFTA at some unspecified date.

1.16. Conclusion

This Chapter has provided the framework on which the thesis proceeds. It outlines how, as a consequence of a restructuring global capitalist economy, the USA has, in its quest for hegemony, formulated a strategy with which to proceed in order to appropriate the resources of the Americas. Utilising NAFTA and the indebtedness of countries of the South to pry open economies, US transnationals are reshaping the Americas to meet the needs of capital. From the biodiversity of the South to the DNA of Indigenous Nations in the region, pharmaceutical transnationals are engaging in a new wave of biocolonialism and biopiracy to shore up capital at home. In this mission, presented as conservation of the resources of “vanishing” Peoples, a concept of ownership constructed by the North and introduced into GATT/WTO by powerful transnationals is being wielded as a weapon to allow for the wholesale plunder of the resources of the South. In order to participate in “catching-up development”, the South has adopted the latest paradigm of development being offered by the
North. This is biotechnology. Biotechnology is tied to World Bank debt forgiveness schemes, debt-for-nature swaps and the issuance of private sector loans to purchase technology, expertise and buildings. In effect, the newest model deepens the old colonial order in the era of NAFTA, SAPs and the EAI. Further, it raises the spectre of eugenics and genocide, as is demonstrated through the Human Genome Diversity Project which is proceeding despite outright condemnation by Indigenous Nations and progressive peoples throughout the world. The South is being deliberately transformed under the supervision of the World Bank and the IMF. I turn to a discussion of how the practices of these institutions tie in with neo-colonisation in the Americas in the next chapter.
Chapter 2

Structural Adjustment Policies, NAFTA and Intellectual Property Rights: Preparing the Americas for Neo-Colonisation

2.1. Implementing the “White Man’s Burden”

It is not by accident that peoples of the South refer to the IMF, and, by implication, the World Bank, as the bridgehead of imperialism. As has been witnessed in the last decade, countries under IMF supervision have seen, in general, economic disarray, hunger, disease and an uncertain future become entrenched in their midst on account of the in-country implementation of structural adjustment policies (SAPs). Further, the WB/IMF consortium is not a benign mechanism. As Budhoo expresses in his exposé, Enough is Enough, “racial considerations” play a dominant role governing how staff is rewarded, and, of particular significance for this study, how power is wielded over countries and governments. Budhoo’s exposé explicitly reveals the underlying “white man’s burden” of racism governing the shape of WB/IMF policy and the genocidal aspect of their adjustment programs in the non-European world. In opening, I stated that the resources of the Americas are sought after to shore up US hegemony. In this regard, it is my contention that the USA has devised a grand scheme to colonise the Americas, extending empire initially in territories peopled in the main by Indigenous, Black and Mestizo Inhabitants. Structural adjustment polices have been designed as mechanisms for creating an economic climate in which the extending of empire might be furthered. To make the chaos of SAPs immutable, to intensify resource extraction and appropriation, and to render the land unfit for human habitation and the support of life,
countries with structural adjustment programs have been forced to adopt intellectual property rights legislation as a preparatory measure for entry into NAFTA. As I attempt to show in this chapter, SAPs and intellectual property rights are mechanisms allowing for unchallenged access to the resources of the Americas. The complementarity between the WB/IMF and US governmental policy is evident in the conditionality attached to the accession clause of NAFTA, which specifies that countries seeking membership in this trading bloc must have a working structural adjustment program in place and must also have enacted trade-related intellectual property rights laws (TRIPs).

In the colonising quest for EL Dorado, Trinidad-Tobago becomes of significance to the architects of NAFTA on account of its location vis-a-vis South America and its development vis-a-vis the rest of the Caribbean. To further the conquest of frontiers of the South, Trinidad-Tobago was singled out by the IMF and rendered to a state symptomatic of the recipients of IMF medicine. This chapter discusses the part played by SAPs and TRIPs in empire-building, connecting these mechanisms to the furtherance of US economic policy through the fraudulent practices of the IMF in Trinidad-Tobago between 1985-1987. It links this phase in colonial enterprise with activities currently being conducted in the South and on the land of Indigenous Peoples in the Americas. It reveals, therefore, the governing logic of NAFTA - to bring all territories in the Americas under control - beginning with the land bases of Indigenous Peoples, moving toward the eventual annexation of all resource-rich areas. In this regard, the words of Davison Budhoo, (an economist who worked as a high functionary for twelve years for both the IMF and the World Bank) are instructive, revealing the connection between the genocide being waged on Indigenous Peoples and IMF Policy toward Peoples of the South. In a series
of questions addressed to Mr. Camdessus, managing Director of the IMF, Budhoo asks, in *Enough is Enough*, if it is of no consequence to the Fund that “UNICEF in December, 1988 should have supported, after highly technical and painstaking research allegations of Fund-instigated genocide of Third World peoples under the on-going, creditor-oriented, international debt strategy?” Despite Budhoo’s revelations, however, the WB/IMF continues on its course of destruction. This is the subject matter of this chapter - to elucidate how US economic policy concerning the extending of empire in the Americas - is being conducted through SAPs and TRIPs. I make specific reference to IMF Fraud conducted in Trinidad-Tobago between 1985-1987 to emphasise the lengths to which the lending institutions have gone to decimate this country of the South. I link the restructuring of the economy of the peoples of Trinidad-Tobago to the overall plan for the Americas, making visible the particularities of the connections. Further, I focus on biotechnology, opening up to scrutiny and critique, its application to “development”.

**2.2. Fraud and Meddling in Trinidad and Tobago**

I hereby file accusation against the fund in its dealings with Trinidad and Tobago on six counts, . . . what we have done and are doing in Trinidad and Tobago is being repeated in some other countries around the world, particularly in Latin America, the Caribbean and Africa . . . the ill-gotten inadvertent power that we level unyielding over prostrate governments and peoples- can only serve to accentuate world tensions, expand even further the already bulging ranks of the poverty-stricken and destitute of the South, and stunt, worldwide, the human soul, and the human capacity for caring and upholding norms of justice and fairplay (Budhoo, 1990: 4, 5).
Trinidad and Tobago, an oil-based economy maintained a $70 billion surplus between 1974-81 in a country populated by 1.2 million people. By 1988, unable to service its debt, the country found itself, "cap in hand", at the IMF’s door. In November, 1988 the government of Trinidad and Tobago signed its first loan agreement with the IMF cognizant of the realization that the country was unable to service its external debt repayments between 1989 and 1991 (Pantin, 1989: 17). The second loan, a stand-by agreement, for SDR\textsuperscript{39} 99 million, to be disbursed over 14 months, was signed in January, 1989. These short-term agreements negotiated with the IMF paved the way for longer term help. In the budget of 1988 some of the terms set out in the Letter of Intent which the IMF writes and routinely gives to governments of the South to sign were seen to have been implemented (Carter, 1991: 2).\textsuperscript{40}

The year, 1988, should not be interpreted as the start of an implementation program of stabilisation measures in Trinidad and Tobago. Abdullah (1988) reports that the government of the People's National Movement (PNM) and the National Alliance for Reconstruction (NAR) had both been systematically implementing IMF type programs from 1984-1986 and between January 1987 and 1988.

Although it has been a matter of scholarly debate, investigation and public consumption in Trinidad and Tobago, accusations of fraud which were levelled at the IMF have been dismissed and ignored by the "august" lending body. One is led to believe, therefore, that the IMF’s outright fraud reflected its eagerness to meddle in the economic circumstances of the

\textsuperscript{39} SDR - Special Drawing Rights. The SDR is an artificial unit of account used by the IMF. It is based on a basket of five currencies and in 1989 was worth a little more than one US dollar.

twin-island state, deepening its dependency in the capitalist world order. The circumstances leading to this situation and therefore occasioning this serious accusation warrant repeating.

On the strength of information provided by Davison Budhoo, Abdulah (1988:8) unveils the saga of fraud which preceded the IMF presence, now firmly entrenched in the country. Specifically, in 1985 and 1986, the IMF manipulated the Index of Relative Unit Labour Cost (RULC) for Trinidad and Tobago, a variable designed, supposedly, to measure the international competitiveness of economies. Based on this variable, members of the international financial community decide to advance or withhold credit to debtor countries. Therefore, in the words of Budhoo,

... the RULC index serves a critical role in the establishment of Fund conditionality for developing countries... it is the most lethal weapon... in our entire bag of tricks... it is the one that we use most often, and most effectively, to cut short the arguments of protesting governments and peoples against the need for currency devaluation and/or other measures to cut the real wage rate, initiate mass lay offs of workers in the public sector and resort to crippling measures of demand management (Abdulah, 1988:9).

In keeping with what has already been mentioned with respect to the IMF's stamp of approval, Abdulah indicates that no new loans were granted to Trinidad-Tobago between 1985-1987, although overtures via overseas applications had been made. It can be deduced, therefore, that the IMF's RULC index had acted as a deterrent sending a powerful signal to the international financial community influencing their decision to withhold credit advances. Dr. Budhoo goes on to explain in his open letter of resignation to the IMF copied to the OWTU on June 15, 1988 how calculations made in 1987 after the IMF's investigating mission had

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41 Oilfields Workers' Trade Union in Trinidad-Tobago.
returned from Trinidad disproved earlier information on that country's economy as had been presented in the Fund's 1985 and 1986 RED Reports. There, the dismal citations relegated to labour costs in manufacturing in Trinidad-Tobago had ultimately led to that country's currency devaluation in December 1985 in order to make labour costs more competitive internationally dropping from an exchange rate of $2.40(TT) to $1.00(US) to $3.60(TT) to $1.00(US).

Budhoo reports, however, that the accurate (1987) information on labour costs, although later also confirmed in an independent study commissioned by the government of Trinidad-Tobago, was neither acknowledged, nor recorded, in any subsequent official Fund Document.

In fact, in information prepared by the Fund for the 1987 Article IV Constitution, no reference was even made to the RULC. From all appearances therefore, the IMF had deliberately misrepresented the economic climate in Trinidad-Tobago. Following Davison Budhoo's potentially explosive disclosure in his open letter of resignation to the IMF, a special investigating committee was established by the government of Trinidad and Tobago. Little was achieved however, since the Central Bank and the Ministry of Finance were not prepared to cooperate with the committee. Were some of those in the "know" at these institutions hoping to be granted access to the "honeypot"?

This action on the part of the IMF and further meddling in the internal policies of the country begs the question - why did the IMF intentionally undertake to select Trinidad-Tobago as an economy on which its harsh policies might be unleashed? Abdullah has forwarded these

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42 See Chapter 7 for an explanation of the "honeypot".
possibilities: 1. The government of Trinidad-Tobago had opposed the US (1983) invasion of Grenada; 2. Trinidad-Tobago had never approached the IMF before. In the 1986 elections, the leaders of the main political parties had alleviated the fears of the working people by acceding that they would not go to the IMF; 3. Trinidad-Tobago had one of the largest state sectors—some 69 major enterprises were fully or partially controlled by the state in 1987. Abdullah concludes, taking these reasons into account, that, in its role to serve the geo-political interests of the US, the IMF was harnessed in a “conspiracy” to put Trinidad and Tobago in its place. More fundamentally, as he points out, the case of Trinidad and Tobago illustrates the capitalist restructuring which is being effected globally, and the role of the powerful in securing the interests of the elite. On a more sinister note, from this writer’s point of view, it appears that the WB/IMF Consortium is not prepared to leave any country of the South out of its governance, and so all countries are forced to fall within its fold by any and all means. Further, given the construction of NAFTA as the political machinery through which hegemony of the USA might be achieved, the subjugation of Trinidad-Tobago fits in with the plan for the entire Americas. Trinidad and Tobago represents one of the little known cases in which fraud was deliberately used to entrench IMF footing more securely in the Caribbean region. To date, it is business as usual between the Fund and Trinidad-Tobago as if the fraud which has been documented by Budhoo had never existed. Given the conditionalities demanded by NAFTA, it appears that increased control of the resources of the Americas was predicated on the reduction of all of the nations of the South into IMF-compliant entities. This is why Trinidad-Tobago, through fraud, was brought under IMF governance. It is not unreasonable to suggest, further, that the orchestration of events in Trinidad was significant within an overall scheme as
was the free trade agenda being thrust on the Canadian state. Both events were necessary for the coming into fruition of the longer term goal of US transnationals - the prying open of the Americas to bolster US hegemony. This would be accomplished through the trade pact called NAFTA. IMF fraud in Trinidad-Tobago would make it easy for the architects of NAFTA to impose their logic in an economy already brought to its knees.

2.3. A Cover for Strengthening the Role of the WB/IMF: The G-7

On June 15-17, 1995 in Halifax, Nova Scotia, Canada, the US, Britain, France, Japan, Germany and Italy met to coordinate global economic, financial and trade policies. Using the Mexican peso collapse and the so-called US “bailout” as leverage, the G-7 determined that “reform” of the WB/IMF and volatile money markets be assigned priority in terms of their agenda. In effect, they set the stage for strengthening the power of the WB/IMF through their sanctioning of these institutions’ supervision of economies of the South. The summitting leaders released an economic Communiqué offering prescriptions to remedy the global economic machine. Their prescriptions failed to propose concrete measures to alleviate the debt servicing burdens of the South. In their call for “an improved early warning system” and more effective scrutiny of economic crises such as the one which occurred in Mexico in 1995, the leaders gave carte blanche to the WB/IMF to play the role of global police, having limitless access to sensitive information of sovereign states. Their Communiqué endorsed the continuation of SAPs while calling for an “effective system of surveillance of national economic policies”. This “surveillance” of the internal affairs of countries has been made possible through the redefining of the powers of the IMF by the G-7. In effect, these countries seek, like colonial or slave masters, to “provide” the IMF with “de facto statutory powers to
intervene in the internal affairs of sovereign states” (Chossudovsky, 1995). The “intervention” which the G-7 has sanctioned, raises, through implications, issues of compliance and policing. I address elsewhere the likelihood of a WB/IMF policing unit to deal with the social disintegration which is emerging in the South. It is entirely reasonable to forecast that overwhelming factions of ordinary peoples of the South will sooner or later refuse to comply with the transfer of capital from South to North. What further sweeping powers will the WB/IMF assign to themselves through the G-7, (as if they constitute the United Nations), to force compliance in the South? The emerging “triangle of authority” between the IMF, the World Bank and the World Trade Organisation (WTO) raises serious concerns for the South. Under the new regime of the 1994 WTO, the relationship of the WB/IMF to governments of countries is to be redefined. Evidently, with respect to the South, what is transpiring within the WB/IMF/WTO triangle of power, is a movement towards legitimising the further intervention, colonisation and governance of these economies on the basis of “international” arrangements. Alternately, others - a small clique of developed world economies - are positioning themselves, on the strength of arrangements which they themselves have “negotiated”, referring to these oppressive terms of reference as “international”, to be the rulers of two-thirds of humanity-

Enforcement of IMF-World Bank policy prescriptions will no longer hinge upon ad hoc country-level loan agreements (which are not ‘legally binding’ documents). Henceforth, many of the clauses of the structural adjustment programme (eg. trade liberalisation and the foreign investment regime) will become permanently entrenched in the articles of agreement of the new World Trade Organisation (WTO). These articles will set the foundations for ‘policing’ countries (and enforcing ‘conditionalities’) according to international law (Chossudovsky, 1995: 10).
The broadening of the powers of the financiers of debt by the G-7 underscores the need for a coordinated approach to have been adopted globally by NGOs and progressive peoples to support the position forwarded primarily by Peoples of the South concerning these oppressive institutions. The position of the South has been that the debt has been paid and that the WB/IMF consortium must be disbanded. Further, as the information released by Davison Budhoo in the recent expose on an international level of IMF statistical fraud undertaken in Trinidad between 1985-1987 has shown, the IMF is not prepared to acknowledge nor give prominence to its mistakes. Indeed, as Budhoo has conceded, it is troubling to observe that, following his disclosure, he has been subjected to “a systematic pattern of violation of . . . human rights”, as have others close to his work, for drawing attention to the Fund’s “process of recolonisation”. If world public opinion did not set into motion the type of “reform” envisaged by Budhoo, an insider at the IMF and World Bank, who was villified on television by the IMF’s Director of External Relations, in spite of the incriminating evidence provided by the Grenadian-born economist on the deliberate fraud in Trinidad-Tobago, little which is tangible can be accomplished by NGOs or grassroots organisations which continue to call for the ubiquitous “reform”. As is alluded to by Budhoo in his “Author’s Preface”, the Fund has to be made superfluous to the needs of economies of the South. This course of action is necessary because

. . . the Fund remains a law unto itself, impervious to questions about its performance, its human rights record, and its accountability to its victims and others affected by its actions . . . there must be an intensification of the effort to reach the hundreds of millions of Fund victims all over the world. We need to educate them about the institution that dominates their lives and to elicit a worldwide reaction sufficiently strong and broad-based and vocal to convince the High Priests in Washington and elsewhere that the day of reckoning is finally at hand (Budhoo, 1990: xii).
In short, the contestation of the power of the WB/IMF has reached and passed the stage where “reform” can contain its excesses. As Budhoo demonstrates in Enough is Enough, greed and power are the operating principles which guide the heavyhandedness of staffers at the Washington institutions. This avariciousness, conditioned and satiated though the assigning of tremendous privileges to staff members, has made the challenge of privatising the entire South an easy task. Nothing short of scandalous, some of the features of staff salary packages bear repetition. Having worked at the IMF for over twelve years, and the World Bank for a lengthy period, at his resignation, Budhoo, states that his “allowances are relatively modest” in relation to others, and that his access to the “honeypot” has been restrictive on account of his “rebelliousness and non-conformity”. Nevertheless, his revelations, although he chooses not to present information on the more generous salaries and benefits of others, are illuminative. Speaking of himself, he tells in a lengthy but revealing missive that,

My annual package . . . is more than the annual budgeted salary of almost every Head of State in the world; it is anything from five to ten times more than what virtually every President or Prime Minister of the Third World would get on his basic pay check. The Big Family Man . . . on assignment in the Third World even as his five kids learn Social Graces in Geneva, compliments of Our Honeypot, would receive more than the basic pay of every head of state in the world, including the President of the United States and the President or Chancellor or Prime Minister of every West European country. . . . His gross earnings would probably be about ten to fifteen times more than the budgeted salary of a typical African, or Latin American or Caribbean or Asian Head of State, and about one thousand times more than the per capita income employed by two-thirds of mankind . . . I forgot to mention the intangibles . . . Like diplomatic immunities . . . Like Royalty class and First Class travel everywhere . . . Like personal secretaries on everyone of our “missions.” Like maids . . . Like the very generous medical benefits plan and the Group Life Insurance Plan and the even more generous Pensions Scheme (Budhoo, 1990: 55).
Budhoo’s discussion on the “honeypot” reveals how the Executive Board at the IMF and helpful officials of the South are rewarded, providing telling insights into how those receiving favours or others anticipating promises of the good life become quiescent and cooperative. Some of the functionaries of the South become recipients of sums of money intended for their home economies while IMF staffers, at the same time that they exhort debtor nations to tighten their belts, are brought into a circle of ever-expanding “material bliss.”

The irresistibility of the “honeypot” and the power endowed on staff through their affiliation with the IMF make it unlikely that the materiality of employees will disappear or that their pronouncements for the South will be radically different from present day policies. While institutions throughout the world downsize, no such activity is apparent at the Washington institutions. In fact, if more control, as proposed by the G-7 is to be exerted in the South, operations at the WB/IMF may expand to include the recruitment of more administrative/technical staff and, perhaps, a Bank policing/enforcement unit to “assist” countries of the South as they deal with the threat of social disintegration and growing militancy. The twin institutions are well placed to “offer” such “assistance” for their returns continue to compound even as the indebtedness of the South amasses.

2.4. Racism and Expansionism

The Fund’s frequent interference in the economies of the South is no secret, though perhaps, the magnitude of their involvement in sovereign states is still underestimated and unrecognised by citizens from the developed North and peripheralised South. Writing on the IMF’s dealings with Jamaica, in 1990, Budhoo tells that -
Since a new government was installed in Jamaica some eight years ago, the Fund has been continuously - virtually on a day-to-day basis - in consultation with the authorities of that country on their economic and financial policies, and . . ., Fund programs have been current there from 1980 to the present time. . . The sight of Jamaican officials in the corridors of the Fund is so commonplace that sometimes they are mistaken for regular staff members. Nor does the Prime Minister himself shy away from visiting Washington. . . two years ago he attended an Executive Board Meeting and made an interesting presentation on economic performance and prospects of his country (Budhoo, 1990: 38).

The kind of power which confers on Bank staff the authority to summon Prime Ministers of countries of the South to Washington for discussion, is unconscionable. None of the “grossly overpaid and nondescript bureaucrat(s)” at the IMF would attempt to summon Prime Ministers of European countries to the portals of their institution at their beck and call. “Proper” protocol would not allow this to be entertained. The observance of protocol, however, does not come into consideration with respect to how the South is perceived by an institution whose policies, like those of the World Bank are overtly racist. The intent of the WB/IMF, it would seem, is to recolonise the majority of humanity to continue shoring up capital on the backs of citizens of the South. Because Europeans in the dominant developed economies are not reproducing themselves, containment of an expanding Majority World population is worrisome for those in control of capital. Coincidentally, in the contemporary period, Nations of Indigenous Peoples and Peoples of the South, report growing mutations and increases in birth defects in their children. Of significance, European countries have initiated the introduction of immigration policies which do not favor the South. The masses debarred

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43 Charles Simon of York University has raised this in discussion and analysis, drawing attention to the contradictions inherent in the declining European one-fifth of the globe and aspirations toward the unmitigated accumulation of capital.
from migration to the North, can be subdued, and, simultaneously, exploited, not as reserve armies of labour - because there are many enclaves of the South in the North where legal and illegal immigrants and refugees are readily available as cheap sources - but, as small-scale consumers, purchasing on an ongoing basis, not luxury goods, but, products to meet their daily basic needs - food, medicine, water. There will be a constant transfer of surplus from the South to the North as long as there exists people in the South whose economic and political circumstances make it mandatory for them to buy from the USA.

Budhoo proffers this analysis recalling the bizarre similarities of racism justifying plunder and slavery for expansionism and development in the “empire” then and now. He makes a direct link between racism and World Bank empire-building -

... the “core” of our staff are still “technocrats” from the developed world, “trained” at “prestigious” North American and European Universities, or their mimics from the developing world who aspire to be just like them. It is these people who, two centuries ago, would have gone into the Colonial Service of their respective countries as colonial administrators, or would have migrated to “their” colonies as entrepreneurs or plantation managers or slave owners. ... a lot of the seething contempt, and the “higher than thou” and “better than thou” and “natural right to rule thou” attitude of our staff vis-à-vis our developing member countries, have their origin in the history and national mores, and pre-conceived expectations of our “core” staff ... the “white man’s burden” mentality that is at the root cause of so much of the troubles of our age, is as evident in the Fund today as it must have been in the United Kingdom, or France, or Holland or any other western colonial powers three hundred years ago (1990: 48).

What Budhoo is saying, therefore, is that the racism of “the white man’s burden” continues to fuel the greed for expansion and acquisition in states held hostage through artificially maintained debt. Like the enslaved who paid tribute to their overseers on mines and
plantations in the Americas not so long ago, in an ever-increasing cycle of debt and bondage despite a never-ending continuum of prescribed work, these debtor countries are still exploited, allowing for the continued export of capital to the metropoles and the rewarding of a grand style of living onto those who manage and maintain the system, to ensure that the recipients of largesse continue to benefit, unabatedly. The bureaucrats dipping into the “honeypot” have seen their counterparts, passed off as “greats” of history written from a European perspective, perform similarly in the past. Thus it was that this occurred at the Berlin Conference - subdividing Africa; in the Caribbean - decimating Indigenous Peoples and introducing enslaved Africans to work on sugar-cane plantations in monocrop agriculture; and in Central and South America - destroying centuries of civilisation and sustainable communities, eliminating history, religion and culture. That these bureaucrats should choose to re-enact the past, despite the horrific lessons of history, serves as testament to their avariciousness and contempt for populations whose lives seem of value only insomuch as they serve the needs of capital. Given the demonstration that the racism justifying the plunder of the past continues to motivate contemporary expansionism through the vehicle of the WB/IMF, this consortium must be disbanded and eliminated. Debts imposed on the South, paid for in the maintained theft of resources by the North; in the lack of compensation accorded to the Indigenous and enslaved communities whose blood and sweat served to build up powerful centres in Europe; through the treasures held ransom in museums or sitting lodged in “crown” jewels in England and other countries, must be written off. In fact, the balance sheet for reparations, if drawn up, will show that interest on these debts is substantial, and could never be paid for only with money. This would be the first step in such a process.
2.5. The IMF: Commentary

To qualify for IMF consideration, potential borrowers must agree to implement measures set out in a formal Letter of Intent directed to the managing director of the institution. A number of specific performance tests have to be met by the country seeking assistance before an IMF loan is disbursed. These short-term loans must normally be repaid within five to ten years. They are disbursed in quarterly or half-yearly payments contingent upon successful achievement of the stipulated performance tests. Since about 1974, however, the IMF and the World Bank have taken a similar line of approach toward economic policy in the South promoting the view that economic recovery and development occur when market forces prevail. The IMF does not approve agreements with debtor countries until governments have located bilateral and multi-lateral loans which fulfill the cross-conditional criteria jointly exerted with the World Bank (Carter, 1991: 29). When the IMF lends, it allows debtor countries to pay off their existing debt obligations over the short term rectifying current-accounts deficits (temporary balance of payment deficits) and balance of trade problems. This temporary relief, however, is not without its problems. The IMF attaches conditionalities to its lending which require debtor countries to institutionalise severe austerity or “stabilisation” programs designed to restructure their economies and budgets.

Underlying the imposition of these conditionalities is the philosophy that, the economic disarray into which most countries of the South are defined and presently floundering, is attributable to faulty internal state policies, as opposed to the particularities of the conditions of the insertion of underdeveloped dependent states into the global capitalist economy. However, the austerity programs foisted on economies as a precondition for further credit, actually use
the debt crisis as a lever, increasing the dependence of debtor countries on world markets. Further, conditions of credit assistance preclude any inward looking development strategy in the South. Typical conditionalities attached to the IMF austerity or stabilisation program involve currency devaluation, lower wages and reduced government spending. In return for adhering to IMF policies, debtor countries are allowed to draw on their Fund quota. They also get the Fund’s “stamp of approval” or imprimatur which encourages foreign investment and commercial bank lending and, hence, facilitates supposedly, the creation of an environment conducive to trade and investment. The sad reality, however, is that loans increase external debt, riddling economies with future debt-services commitments. Moreover, as critics continue to point out, the IMF prescription which induces internal recession and slows growth, has recorded a rather poor showing in meeting stipulated goals. In fact, despite changing global capitalist economic trends, the Fund has adhered to its basic recipe for balance of payments relief for over three decades.

The one alteration in operation, which occurred late in the 1970s - a special expanded credit facility - placed even stronger emphasis on deregulation and privatisation. In the 1980s, in another move, the IMF encouraged the development of nontraditional exports hastening the demise of agriculture and self-reliance in the South.

The lead-in role of the IMF is closely linked to World Bank assistance. While the former concentrates on fiscal, monetary and exchange rate policy, the latter links its loans to exchange control, commercial policy on imports, privatisation, subsidies and transfers. There is considerable overlap, however, between the conditionalities attached to loans from both financiers (Pantin, 1989:14). Indeed, IMF austerity policies are the foundation upon which
World Bank structural adjustment programs are built. In the Caribbean, cross-conditionality is standard practice where the World Bank negotiates adjustment loans in conjunction with IMF Structural Adjustment Facilities (SAFs), a category devised in 1985.

In the 1980s the prices of most of the primary export commodities from the South fell dramatically. Faced with the magnitude of the Mexican debt and the declaration of that country in 1982 of its inability to finance its payments, lending from banks in the North became nonexistent for peripheralised economies. Until the IMF and the World Bank entered the picture providing a seal of approval for foreign lenders, countries of the South continued to be denied access to lending. The austerity and adjustment policies instigated by the two agencies charged with being the bridgehead of a new imperialism, contrary to their claims toward improvement, have overwhelmingly increased repression, compromised freedom and sovereignty, and contributed to the destruction of the human capital of poor countries. Yet, despite the spectacle of human suffering on record in Africa, Asia, Latin America and the Caribbean, for marginalised economies it remains impossible to obtain debt relief without an IMF program or presence and the stipulated "conditionalities".

The austerity package imposed by the IMF is now familiar to most Peoples of the South through direct practical experience acquired on account of the fallout from the prongs of accumulation facilitation. Constituted to stimulate capitalist investment through the promotion of "free markets" and to increase the competitiveness of the import-substitution sector, stabilisation measures have resulted in cuts in social service spending, wage restraint, retrenchment of public sector employees and the implementation of "realistic" rates of interest. As children, women, the elderly, the infirm and the poor suffer from IMF misery, it becomes
acutely evident that the Fund’s interests do not lie in improving the lives of the dispossessed in the periphery. The Fund’s objectives as specified in its “Articles of Agreement” are as follows. Notably, according to Carter (1991),

- Promotion of international monetary cooperation through a permanent institution providing for consultation and collaboration on international monetary problems.
- Facilitating expansion and balanced growth of international trade aimed at promoting and maintaining high levels of employment, real income and the development of productive resources of members.
- Promoting exchange rate stability avoiding competitive exchange depreciation.
- Assisting in the establishment of a multilateral system of payment between members and eliminating foreign exchange restrictions hampering growth of world trade.
- Giving confidence to members by making Fund resources available thus providing them with the opportunity to correct maladjustments in their balance of payments.
- In accordance with all of the above, to shorten the duration and lessen the degree of disequilibrium in the international balance of payments of members.

Indeed, as Carter (1991) points out, the stated objectives clearly are the development and stability of the international monetary system. Because the voting strength of Fund members is consistently biased in favour of the developed world, the interest of five countries - the US, Japan, France, Germany and the UK, predominate. The IMF therefore is more accurately described as “a developed economies monetary organization” (Pantin, 1989) - a kind of club which imposes the logic of capital through loans, debt swaps and tests.
reinstitutionalising neo-colonialism. This club drains resources from the South, allowing for an uninterrupted and increasing payoff for the North.

More than two-thirds of the external indebtedness of the Caribbean (US $6,000 million) is owed to non-commercial bilateral and multilateral aid donors and lending institutions. This ratio of commercial to non-commercial debt (1:2) distinguishes the Caribbean region from other countries of the South where the ratio is the opposite (2:1). This reduces the scope for debt amelioration, strategies of which should involve an element of default as the “risk” commercial lenders should carry when seeking profit (Thomaz, 1991: 330-331). In 1970, Haiti and the Dominican Republic were the only two countries in the Caribbean region to enter into standby agreements with the IMF which had already devised standard stabilisation policies as a precondition for the refinancing or renegotiating of new loans. In 1975, Grenada and Jamaica joined these two. By 1980, seven countries had signed Fund agreements. Between 1979 and 1987, the World Bank advanced 121 adjustment loans totalling US $15.3 billion. In 1987, World Bank lending doubled the amount spent by the US in world development assistance for the same year. At the end of the 1970s the World Bank adopted structural adjustment as a method to compel debtor countries to consume less and export more. Between 1980 and 1986, the Caribbean Community and Common Market (CARICOM) saw its debt double from $3.1 billion to $6.5 billion in a period marked by a sharp increase in interest rates, in which, in 1986, capital outflows from the region in the form of interest payments registered at $653 million, exceeding inflows by $100 million. World Bank SAPs in the 1980s reach far beyond the

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44 Thirteen English-speaking Caribbean countries make up CARICOM. These are Antigua-Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St. Kitts-Nevis, St. Lucia, St. Vincent, Trinidad-Tobago and Montserrat. The population of these territories is about 5 million. All CARICOM countries (except Montserrat) obtained their independence from Britain within two and a half decades after 1960.
austerity policies of the IMF in terms of control exerted in the economies of sovereign states. Regulating not only economic policies, but how resources are distributed and priorities are mapped, the Bank's power has been likened to that of the colonial masters. By 1988, Cuba, Jamaica, the Dominican Republic, Guyana and Trinidad and Tobago, when taken together, accounted for 90 percent of the regional debt of close to $20 billion.

2.6. IMF/World Bank Programs: Impact and Costs

Data continue to show that the vast majority of countries which have accepted the prescription of the Washington institutions remain strapped by debt in ever worsening circumstances. Jamaica has been under the IMF umbrella since June 1977 when M. Manley's government signed a Stand-by Agreement with the IMF. In 1982, under Seaga's leadership, the country received 69% of the World Bank's loans to the Caribbean region, a sum amounting to $133 million. Despite the massive support extended to Seaga by the Reagan administration, at the end of 1986, the economic and social situation in Jamaica showed no improvement from the situation in 1980 (Thomas, 1991: 233).\(^{45}\) One of the first countries to accept the economic strategy marketed under the rubric of adjustment, as of 1988, Jamaica had received more funds per capita of Structural Adjustment lending meted out by the World Bank than any other country in the world (McAfee, 1991: 67-68). For the vast majority of Jamaicans, World Bank policies have led to a decline in living standards. The situation of women deteriorates.

\(^{45}\) See Clive Thomas, *The Poor and the Powerless*, p. 232-3 for a good discussion of the collaboration of the Seaga administration with the right-wing Reagan administration and the Jamaican government's involvement in the invasion of Grenada and the formation of the CBI.
The Dominican Republic entered into a three year IMF austerity program in 1982 instituting wage cuts, tax increases and longer working hours. Concentrating on export-oriented production, the economy faltered as world commodity prices slumped. In January 1984 the Reagan administration was notified that continued adherence to the terms of IMF conditionalities “... could undoubtedly provoke social tensions so strong that it could alter the peace and the most important functioning democratic process in the Caribbean”. In the civil disturbance which erupted in May 1985, as the second phase of IMF adjustments was being implemented, 55 protesters were killed and 4,000 people were arrested by the military and the police. Repression has become a common response to stifle the cries of those bearing the brunt of adjustment.

These experiences are not unique as is borne out through events in other peripheralised economies in Africa, Latin America and Asia. There have been riots in Egypt, Algeria, Tunisia, Morocco, Zimbabwe, Nigeria and Sri Lanka. UNICEF has presented compelling country reports indicting the BWIs\footnote{Bretton Woods Institutions.} masquerading as bringers of aid. Poor women and men have taken to the streets to protest the rising cost of living as governments initiate terms of IMF agreements. The “medicine” continues to be meted out, however, as poverty and disenfranchisement accelerate. Committing themselves to the economic policies of austerity stabilisation, CARICOM heads of state declared in the “Nassau Understanding” sketched in July 1984 in the Bahamas that adjustment “is an integral part of the development process” representing “a conscious shift to a new development path to accelerate development” (Deere, 1990: 45). If the heads of state accept that recolonisation represents a “new development
path”, it seems obvious enough that they are ripe and ready for entrapment into the NAFTA plan for the Americas.

2.7. Components of Structural Adjustment Programs

Adjustment programs are typically structured along the following lines to achieve stabilisation and belt-tightening. These are some of the features, according to McAfee (1991) -

Reduced local consumption - Currency devaluations which make imports expensive are instituted as standard SAP disincentives toward consumption. The removal of subsidies or price ceilings in tandem with devaluation result in the escalation of prices on critical items such as food staples, gasoline, pharmaceuticals and other necessities.\textsuperscript{47}

Government subsidies to the private sector - Governments in receipt of adjustment loans must consent to inject larger proportions of local revenue and foreign capital into private sector projects, particularly those initiated by foreign investors. As part of this scheme, governments are expected to provide the infrastructure and to facilitate the provision of water, electricity and sewerage disposal in the building of factories which serve to attract foreign investors interested in production for export. The locales in which this spending, which is referred to by countries as the Public Sector Investment Program (PSIP), takes place, are selected, not on the basis of the needs of people, but rather, in their potential for generating export-oriented production.

Reduced taxes for businesses and the enactment of tax holidays - Financial incentives such as tax holidays ranging from 5-20 years and the unimpeded repatriation of profits make export-oriented production in subsidised state factory shells a lucrative business. The losses

\textsuperscript{47} Transnationals then have free rein to offer consumers staples, herbs and medicines for sale at rates they post as indigenous industries decline and cease to exist.
incurred by governments in tax revenues when added to the costs undertaken through PSIP programs are often compounded even further when footloose world market factories close up shop and relocate at the expiration of their tax holidays.

**Higher personal taxes** - As a means of increasing government revenue, new forms of indirect taxation such as sales or value-added-taxes (VAT) are introduced. Adjustment programs discourage taxation of high income individuals and businesses, forcing the burden arising from increased activity by the state to maximise revenue, to fall disproportionately on the poor and the middle class. Structural adjustment theory holds that domestic savings will increase as the wealthy invest at home. In reality, however, higher income groups spend and invest abroad having little confidence in the domestic economy.

**Opening domestic markets to foreign-based exporters** - Protectionist policies such as quotas and tariffs put in place to protect countries’ industries from foreign competition are dismantled. World Bank strategy insists that low-income nations should export what they are “best” at producing, namely, unprocessed agricultural and mineral primary commodities. As a corollary to this, countries of the South should leave the production of all other products in the hands of TNCs in the developed world. This strategy has reinforced dependency locking the South even more securely and acutely into a global capitalist economy marked through conditions arising historically and contemporarily out of conditions of unequal exchange.

**Removal/Reduction of tariffs and levies on exports** - Export levies and tariffs are discouraged or usually forbidden under the terms of structural adjustment programs.

**The sale, scaling-down or dismantling of state-owned enterprises** - State-owned enterprises, farms, land, utilities, companies or cooperatives considered inefficient from the
World Bank’s perspective are sold at low cost to private investors or scaled down in operations. Those agencies supportive of the private sector remain operationalised in their interest.

**Decreased public spending on services** - Services which do not directly contribute to the export-oriented sector are slashed drastically in their budgets at a time when the poor and middle-income earners are most in need of assistance. Adjustment programs typically force governments to reduce spending in the areas of health, housing, education and sanitation. Sometimes the World Bank provides debtor countries with sectoral adjustment loans in lieu of, or in addition to structural adjustment loans. The former are used to rationalise government spending in key areas, through methods such as teacher layoffs, the elimination of scholarships, increasing the price of text books, implementing/raising school fees and changing a fee for services such as vaccinations which were formerly provided free.

**Retrenchment of public service employees** - Supposedly, public sector layoffs, like the selling of state enterprises, reduce government spending, improve efficiency and balance budgetary deficits. Again, the poor suffer disproportionately as a consequence of retrenchment.

**Fall in wages/reduced buying power** - When governments freeze wages, fail to enforce minimum wage laws and introduce currency devaluations to attract investors, workers’ incomes decline in real terms as prices of staples and necessities increase. The rhetoric of “improving the business climate for investment” is used to justify those measures.

**Tourism** (eco-tourism) - The expansion of tourism is seen as one way to attract foreign exchange to the Caribbean region, despite the evidence to date, co-related to this increase, of
environmental degradation, increased activity in drug dealing and prostitution (sex-tourism) including an organised move toward business ventures in child prostitution. Linked to eco-tourism is also the widespread and growing practice of foreign ownership of prime Caribbean real estate institutionalising apartheid policies on properties in a territory in which the inhabitants are primarily people of colour.

Coordinating regional policies for adjustment in the Caribbean in an unprecedented move, is the Caribbean Group for Cooperation in Economic Development (CGCED), a consortium directed by the World Bank and the IMF. The membership of CGCED includes AID, donor government agencies, transnational corporations and 22 Caribbean territories. Chaired by the World Bank and the IMF at the one week meeting held every 18 months in Washington (McAfee, 1991: 77), the CGCED represents an agency through which decisions are made by the government of the US, other donor countries and financial institutions governing loans, rescheduling and conditionalities. McAfee notes that “the IMF and World Bank have used the CGCED successfully as a means of getting donors to line up in support of structural adjustment in the region”, despite their obvious ignorance (or interest in) of the Caribbean reality.48 Ricky Singh, a respected Guyanese journalist, observes that the lending agencies operating through the CGCED are particularly adept at influencing Caribbean governments to implement IMF-type policies “as if the governments themselves were requesting them” (McAfee, 1991: 78).

Of the seven smaller Organisation of Eastern Caribbean States (OECS) countries which belong to the CGCED, (although not subjected to official structural adjustment programs), St.

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Vincent and the Grenadines have chosen to informally implement policies along similar lines. Member states of the OECS, unlike the larger territories in the Caribbean, are governed by the Tighter Consultative Group (TCG), a sub-committee of the CGCED. Because of the World Bank’s refusal in 1985 to coordinate funding and adjustment for OECS states through their Secretariat, the TCG deals individually with members. Although CGCED decisions affect Caribbean people, documents on commissioned studies and projects in the region are only made available to consultants and bidders for contracts in a territory in which sovereignty remains incidental to outsiders’ interests. As McAfee notes (1991: 79), the CGCED represents an “ominous precedent” for poor countries especially those in the Horn of Africa whose vulnerability makes them likely candidates for foreign influence and control.

2.8. Export-Oriented Production and the Caribbean

New technology has made it possible for TNCs to divide manufacturing into separate stages. This enables world market factories to shift phases of production requiring low technical skills and little machinery to low-wage countries where production costs might be minimised. As a result of this development, export processing zones (EPZs) have been created in the Caribbean and indeed, in many parts of the South, where a range of products is assembled and ordered, from garment and electronic, to data entry processing (beamed by satellite to the North).

The technological revolution has ushered in what has been referred to as a Second Industrial Revolution on account of the tremendous advances which have been accomplished in the areas of robotics, microelectronics, plastics and so on. The production process itself has
been profoundly transformed by new technology making entire industries redundant. Vast numbers of workers in the manufacturing sector in the North have become unemployed as factories turn to computers and robotics to enhance production and increase profits. The impact of new technology is felt perhaps more acutely in the primary commodity producing countries of the South where entire economies are being devastated. Synthetic substitutes developed in the North to replace petroleum, sugar, cocoa, coffee, vanilla, cotton, rubber, copper, tin, timber, aluminum and natural fibres, among others, have already contributed to severe reductions in both price and demand of commodities from the South. Copper producing countries like Chile; sugar producing nations such as the Dominican Republic and Trinidad-Tobago and the Guyanese and Jamaican mineral exporters have all seen their earnings from exports plunge considerably.

In the 1980s low levels of growth in the North led to declines in demand for almost all commodities exported by the South (McAfee, 1991: 153). Yet in 1981, when total world trade registered a decrease for the first time since 1958, the South was increasingly being forced to adopt structural adjustment policies emphasising export-oriented production. Although world trade experienced a 2.8 percent growth between 1981 and 1985, exports from the South continued to show an annual decline of 0.4 percent from 1981-1986 (McAfee, 1991: 153-154). In the scenario of falling world trade, declining demand for even cheaper primary products, synthetic substitutes and the renewed thrust toward export oriented production in the South, the prescriptions of the present seem like a variation on an old theme.

World Bank adjusters have stressed economic growth premised on the viability of the export sector. They have urged debtor countries to continue selling cocoa, coffee, sugar and
timber and to mechanise agriculture and mining in order to enhance production. Faced with the grim statistics highlighting the impact of the decline in the prices of primary commodities on competing debtor economies, World Bank officials, in addition to calling for the production of higher priced export crops such as flowers, "exotic" fruits and winter vegetables, and a more organised tourist sector are now stressing the importance of export-oriented industrialisation pointing to the NICs as models for the Caribbean. With this picture in mind, in a race to attract transnationals to the region, Caribbean governments promise cheaper labour and more lucrative concessions in compliance with IMF specifications. Footloose companies, apt to relocate at the end of their tax holidays employ women predominantly. The conditions of these women’s employment are well known (Awang, 1988; Dunn, 1987; Elson and Pearson, 1981).

Unregulated trade, bereft of "anti-export biases" such as legal minimum wage, the enactment of health and safety standards, export tariffs and import restrictions, is encouraged through World Bank structural adjustment policies which advocate the "free-market." The enclaves and industrial parks in which light manufactured exports are assembled function as "states within states" in that foreign manufacturers are not subjected to the regulations which apply to factories outside these areas. Estimates suggest that in the Commonwealth Caribbean, 20,000 women are employed in 750 garment factories geared to the US market (Green, 1988). More than 80,000 women work in the free zones in the Dominican Republic (McAfee, 1991: 85). In terms of foreign exchange, the zones contribute little to the region’s economies, since the value added to exports is so low. Manufactured exports from the Caribbean to North America and Western Europe reflected a 10.2 percent increase in volume between 1980-1986.

49 Newly industrialising countries - Singapore, Hong Kong, Taiwan and South Korea.
During this period Jamaica experienced a 16.6 percent increase in the volume of its manufactured exports to these regions. By comparison, in dollar value, exports from CGCED countries fell from US $8.4 billion to US $4.9 billion between 1980-1986. Taking into account the fall in the price of primary commodities previously noted, the other factor leading to a decline in dollar value in trade, even as exports show an increase, is the prevalence of low wages. The structural adjustment policies which have made the Caribbean more attractive to investors have created hell for people to survive. Job losses due to retrenchment cannot be compensated for through low-wage jobs created in enclaves manipulating the gendered division of labour in dependent peripheralised economies.

In the spring of 1982 the Reagan administration proposed a package designed to ensure “security through development” in the Caribbean as the US became increasingly concerned about “containing communism” in the region.\(^5\) Unveiled before the Organisation of American States (OAS) on 24 February, 1982, the Caribbean Basin Initiative (CBI) proposed a plan of trade, aid and investment incentives to “improve the economic well being of the Caribbean area”. The Caribbean Basin Economic Recovery Act (CBERA) was signed into law on 5 August, 1983, after debate in Congress and consultation with labour, the business community and government institutions. The CBERA represented US economic policy toward the Caribbean premised on a strategy to generate extensive benefits to US capital. This plan sought to restructure Caribbean-US economic relations so that the Caribbean would become even more securely integrated with the US market. Eventually, the CBERA would be “refined”

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\(^5\) The Sandinista revolution in Nicaragua and the New Jewel Movement revolution in Grenada both occurred in 1979.
through other complementary agreements allowing for continuous privatisation of the economies of the Caribbean.

Originally the CBI was constituted of three components - trade, investment incentives and development assistance. According to its terms, the CBI would 1) allow duty-free entry to the US for eligible items from designated countries from the Caribbean Basin for a period of 12 years with certain specified exemptions- textiles and clothing, footwear and leather goods, canned tuna, petroleum and petroleum-derived products; 2) create tax credits of 10 percent to encourage US business to invest in the Caribbean and grant credits for the use of CBI-designated convention sites to attract tourism to the region; 3) provide supplementary aid to key Caribbean countries to meet balance of payments short falls or emergency aid put at US $350 million for the first fiscal year (McAfee, 1991; Thomas, 1988).

In October 1981, strategically prior to the announcement in the US of the CBI, the US Army Office for Operation and Plans released a report based on a study initiated in October 1980 to assess “emerging nationalism, Cuban activism, and expanding Soviet interest in the region . . .” and also to “emphasize the development of military alternatives to reduce the occurrence of destabilizing events.” In its analysis, the 1981 report recommended that the US military establish closer working relationships with regional security units and that furthermore, the US army should,

Establish a network of military-to-military relationships that can: 1) gain for the United States an understanding of the current position and future direction of various Caribbean militaries and leadership elites; 2) foster increased access to decisional elites in order to enhance US influence; and 3) serve as a bridge between regional military elites . . . (McAfee, 1991: 36).
The CBI-US government’s military linkage consistent with US geopolitical interest in the region, posed a threat to sovereignty, (a threat which deepens in the contemporary era) where an increasing presence of US businesses and personnel could lend legitimacy to US military intervention in the Caribbean. Thomas (1988) sheds light on some of the considerations leading to the deliberately designed military-CBI package and the perception held in the US that the Caribbean is indeed their backyard, as he reports on a 1984 speech by George Shultz commenting on Reagan’s original vision of the CBI-

... Reagan . . . had in mind more than a partnership between the US and the Caribbean Basin to promote trade and investment . . . the US point of view . . . is that the Caribbean Basin is vital to our security and to our social and economic well-being. It is indeed, our third border. Economic, social and political events in the Basin have a direct and significant impact in the United States (Thomas, 1988: 337).

This speech recalls Reagan’s earlier comments to the OAS in February 1982 where he had stated that nearly half of US trade - half of their imported strategic minerals and two-third of that country’s imported oil pass through the Gulf of Mexico-Panama Canal area. Concern over continuous, unobstructed access to trade waterways indicates the degree to which US interests were prioritised under the CBI (Thomas, 1988).

Consistent with US security interests in the region, the CBI sought to ensure that beneficiary countries cooperated with the US government in controlling narcotics trafficking; in providing fair compensation for expropriated US property; in the negotiation of bilateral investment treaties with the US; and in establishing extradition treaties between the US and CBI countries (Thomas, 1988: 335). Some of these same conditions of participation, leading
into the NAFTA Pre-Accession Agreements, become even more strident and oppressive, as further discussion in this thesis will reveal. Clearly, however, the CBI was a frame on which the future accentuating of “cooperating” conditions, such as are outlined above, was anticipated. US demands compromising sovereignty in the South, in its thinly disguised “war against drugs”, continue to resurface in trade agreements in 1996. Some 40%-60% of all global illegal drugs is consumed by users in the USA. One wonders why the USA, so anxious to “assist” others, has not been successful in eradicating the commerce in drugs in a familiar environment at home.

2.9. Failure of the CBI

... what the White House believes is most threatened - are US business investments ... and this private sector, this monied, elite group of people who oppose humanitarian concerns in favour of the military, in order to resist the Communists and thereby safeguard their economic interests, ... is going to help “stabilize democracy” ... Do you think US soldiers are playing war games in the Eastern Caribbean because of commitment to domestic tranquillity? ... the private sector ... is the problem. It has been the problem throughout our turbulent history in these islands. Three hundred years of racism and greed have now brought the world to the brink of fiscal and nuclear disaster. Still, some of us are willing to look to these same sources for our salvation (Dymally quoted in Thomas, 1988: 334).

The highly marketed promise behind the CBI was that the opening up of Caribbean economies would spur investment and growth in the region, reducing unemployment while encouraging the servicing of foreign debt commitments. The logic according to the bill, therefore, was that the magic of the market place would alleviate Caribbean economic difficulties. The financial assistance offered under the CBI was linked to other policy goals of the US administration, well illustrated through the conditioned terms of assistance, both directly
and indirectly, on the basis of successful compliance with stabilisation and austerity measures and rescheduling of the debt. US financial assistance complemented other strategies undertaken by US Agency for International Development (USAID), the IMF and the World Bank which also demanded compliance with stabilisation and adjustment reform, in effect, transferring emphasis from the funding of public sector projects to prioritising the private sector.

To qualify as a CBI beneficiary, a country was required to allow privileged entry access for US investors. If a country provided preferential access to goods from other developed countries which might have had a negative effect on US trade, this country would have been disqualified. If a state failed to cooperate with the US in the area of drug trafficking or had nationalised, expropriated or seized US-owned property, it would have been excluded. Other criteria, determined according to presidential discretion might have been further employed to force cooperation and "determine" beneficiaries. Some of these included whether a country used export subsidies and export performance and local content requirements which might have distorted international trade. Given these stipulations, of the 28 potentially designated Caribbean Basin countries for CBI consideration, Panama became "nondesignated" in 1988 regaining favourable status after the US invasion in December 1989. Cuba remained explicitly excluded.

Unlike the Generalized System of Preferences (GSP) which granted ten-year duty-free periods to products from countries of the South under authority from the US President, and Sections 806.3 and 807 of the Special Tariff Provisions which allowed preferential access to
imports consisting of US components, the CBERA provisions regarding rules of origin were more flexible. Both GSP and CBERA stipulated that the value added in beneficiary countries to a product, together with direct costs incurred through processing, should not be less than 35 percent of the item's appraised value. The CBERA, however, further specified that up to 15 percent of these costs could come from US materials. In reality, therefore, only 20 percent of an item's appraised value needed to be added on in a Caribbean factory for consideration within the items of the CBI.

Furthermore, materials and costs of processing might be drawn from any combination of beneficiary countries together with the Virgin Islands and Puerto Rico in order to meet the 35 percent requirement. Thus, products did not lose their status of origin denomination even though they might have passed through other beneficiary areas. Taking into account Sections 806.3 and 807 of the Special Tariff Provisions, products which became eligible under the CBERA, entered the US market duty-free, without having to pay a tariff on the value of processing undertaken in the Caribbean. As such, assembly operations such as electronics, pharmaceuticals and hospital equipment were profitably assembled by US factories in the region. This gave US transnationals considerable advantage over Asian producers, strengthening US foreign policy and undermining CARICOM.

It has been noted that the CBI complemented a wider array of strategies designed to support US policy goals in the Caribbean so much so that,

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51 The CBERA legislation came into effect January 1, 1984 focusing on duty-free access for Caribbean exports and a once and for all increase in development aid.
The economic arrangements demanded by the IMF and other US controlled lending agencies, and the economic objectives of the CBI, are part and parcel of the same economic policy aimed at redesigning... the Caribbean to suit US interests... the CBI can hardly be considered separately from the structural adjustment policies of the IMF and its counterpart the World Bank (French, 1990: 6).

Whether implicitly or explicitly, CBI policies promoted US policy goals demonstrating the link to a wider array of strategies implemented by USAID, the IMF and the World Bank, which generally demand economic arrangements aimed to free up market forces. Whereas AID formerly supported public-sector projects, under the CBI it provided assistance for private sector ventures.

The CBI has been a success story for the USA in that, as predicted, it has enhanced US influence and investments in the region, steering beneficiary governments towards a stance of accommodation vis-à-vis US foreign policy. As for the recipients of the package enacted under the Caribbean Economic Recovery Act,

... They gave up substantial tax revenues and relinquished many of their rights to regulate foreign corporate activities. They shifted resources away from farming and manufacturing for Caribbean markets and away from vital public services. They provided factory buildings, utilities and other services to foreign investors at rates below their actual costs, incurring debts that have yet to be paid... their concessions are likely to bring about results even more damaging to the majority of Caribbeans than the current neglect of regional development needs and the weakening of national sovereignty that has accompanied the CBI (McAfee, 1991: 44).

2.10. Making the Connections: USAID and US Business

Aid programs of the US government are determined primarily by US geopolitical interests. Allies of the US have traditionally been the primary recipients of aid. Non-military
aid funds administered by USAID fall into three areas for disbursement - economic support funds (ESF), development assistance, and food aid channelled and sold under the PL 480 program, as discussed earlier. ESF, together with direct military aid, constitutes US “security assistance”. Historically, US food aid has served to extend that country’s corporate agenda entrenching reliance on foreign exports whilst stifling and even eliminating local agro-industries in the South. In view of current trade policies embracing intellectual property rights as enshrined in GATT and NAFTA, the expansionist agenda of US food transnationals is no less than to eliminate the viability of agricultural producers in the Caribbean, as in other peripheralised countries, as is instructive through the recent experience of Indian farmers with Cargill.\(^{52}\) The expansion of food aid in the Caribbean, as it stands, divided regionally, in the throes of debt, portends of a frightening future in which clauses with “teeth” (such as in Chapter 17 of the NAFTA treaty) will be used to enforce sanctions against non-compliant countries through the threat of “cross-retaliation” - that is, “the withdrawal of market access for exports of goods from countries that do not enforce a standard of intellectual property rights . . .”. Non-sellers cannot drum up foreign exchange to pay off their crushing debts.\(^{53}\)

Between 1962 and 1982, the budget of USAID for the Caribbean fell within the range of US $66 million. In 1983 and 1984, food aid, ESF and development assistance registered at $302 million and US $359 million respectively. In 1983 Jamaica became “the recipient of the third largest per capita amount of US foreign aid funds in the world”. In 1984, following the US invasion, Grenada became the recipient of the second largest per capita amount of US aid funds

\(^{52}\) See “License to Plunder Say Indian Farmers Opposed to Patent Proposals in GATT TRIPs Text” chronicling the resistance of Indian farmers to WB pressure to change India’s patent laws giving monopoly power over seeds to transnationals in Economic Justice Report Vol. IV, No. 2, June 1993, pp. 11-12.

\(^{53}\) See Page 10 in Intellectual Property Rights in Nafta.
in the world. As McAfee points out, AID singles out for "reward" those governments whose support is unequivocally for the US.

The manipulation of AID funds to further the political agenda of the US is widespread in the Caribbean whose sea routes are perceived as the "gateway" to the Americas. Since 1981, AID has shifted emphasis from the funding of enterprises to a push toward privatisation. In this initiative the loaned funds are recycled back to the US under the terms and conditions to which grant agreements are tied-

... the USAID grant agreement to the government of Dominica for a US $12.1 million road repair project stipulated that US $10 million of the AID funds had to be used for the purchase of materials, equipment and consultant services from US firms. Similar conditions tied to an AID grant for privatization of agriculture in Grenada required the use of US made vehicles and equipment that were not compatible with the tools and equipment being used in Grenada. The Jamaica Agricultural Development Foundation, set up with US $7.5 million in AID funds in cooperation with the US dairy firm Land O'Lakes, netted numerous benefits to Land O'Lakes, reportedly including a US $400,000 contract to provide cheese to Jamaica - a country capable of producing its own cheese - at three times the market price (McAfee, 1991: 53).

Caribbean countries in receipt of AID funds are required to purchase highly priced US exports which often weaken production locally and regionally, leading to business closures and rising unemployment. In effect, AID financed projects generate billions of dollars in profits for companies to repatriate tax-free to the US while Caribbean people who subsidise these programs are burdened with more and more regressive taxation.

Referring to the OECS but with general applicability regionally, AIDs 1985 Strategy Statement for the sub-region called for government actions to aid private business, including:
fewer restrictions on corporations and their rights to take profits out of the host countries, reduced taxation of corporations and higher-income individuals, and elimination or reduction of import duties on parts and materials imported by private companies for assembly and re-export (McAfee, 1991: 57).

The allocating of AID grants in favour of export industrialisation demonstrates how USAID is working in concert with the IMF and the World Bank toward orienting Caribbean economies to serve the needs of US capital. A number of countries in the region - Trinidad-Tobago, Grenada, Dominica and Guyana - have become the testing ground for the coordinating of programs of austerity and adjustment. Taking the view that the CBI has been a success, USAID urges Caribbean nations to reduce their high wages in order to attract more investment, since, "as low as wages for women in Caribbean factories are, they are two to three times higher than those of export factory workers in the low-wage Asian countries of Thailand, Sri Lanka and the Philippines". Some of the grants disbursed through the AID agency bypass and ignore regional institutions as if they did not exist, and in utter disrespect of Caribbean people, as a whole. In 1981, when the Caribbean Development Bank (CDB) refused a loan from USAID which stipulated that pro-socialist Grenada should not be allowed to access some of these funds, the latter established the Caribbean Financial Services Corporation (CFSC), a conduit for US funds to the area. Operating as an offshore bank, the CFSC financed projects in the Commonwealth Caribbean which had links with companies in the US. Continuing in the trend of disdaining Caribbean regional initiatives, AID set up the High Impact Agriculture and Marketing Project (HIAMP) Trust Fund, opting to secure and subsidise foreign investment in agricultural exports from the Eastern Caribbean states instead of cooperating with the efforts
undertaken by the Caribbean Food Corporation (CFC) and CATCO, a subsidiary and joint public-private sector enterprise undertaking to make technical assistance available to farmers while marketing their products regionally and in Europe. But, perhaps, it is in agriculture and the related area of biotechnology that the payoff for transnational corporations promises to be the greatest, as it does to be continuous...

2.11. Initiative for the Americas and NAFTA

Faced with challenges to US hegemony on account of global capitalist restructuring currently underway, US business is attempting to recover and consolidate faltering economic dominance on the world stage. As one strategy to secure this initiative, on June 27, 1990, George Bush announced the US Enterprise for the Americas Initiative essentially calling for a "hemisphere-wide free trade zone... stretching from the Port of Anchorage to Tierra del Fuego." Designed to "free-up" the markets in Latin America and the Caribbean even more, the Initiative for the Americas offered trade concessions, private investment promotion, and the conversion of stated amounts of debts owed to the United States to debt-for-equity and debt-for-nature swaps, with further debt forgiveness being assigned to countries in Latin America which agree to US food aid purchases. Disbursement of investment funding proposed under the Americas Initiative amounting to US $300 million,\(^{54}\) administered through the Inter-American Development Bank (IDB), would rest on acceptance of conditionalities by recipients of IMF and World Bank-type structural adjustment programs, in addition to agreements to ensure

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\(^{54}\) According to McAfee (1991: 45) the sum of $300 million represents three-quarters of 1 percent of the total foreign debt of Latin America and the Caribbean and 2.5% of the region's indebtedness to the USA. To come up with the proposed $300 million (US), the US had hoped that matching grants of $100 million (US) each would have been forthcoming from Europe and Japan.
commercial bank collection of debts. In essence, the Enterprise Initiative is a continuation and consolidation of programs undertaken under the auspices of the CBI. Even more oppressive than the CBI, it reveals the true nature of US interest in the Caribbean and Latin America made explicit through the bid for biodiversity subsumed under “swaps”. The truly diabolical nature and equity swaps set the stage for entire countries to be owned by transnationals which will utilise the biodiversity of these countries to increase the profits of the pharmaceutical, agricultural and bioengineering industries, while wiping out domestic agriculture and appropriating ownership of herbs, medicines and plant diversity through intellectual property rights.

Bush’s grandiose “... Anchorage to Tierra del Fuego” envisioning a gigantic trade bloc extending through the entire western hemisphere is well underway. Having prepared the way for the privatisation of Canada in 1989 through the FTA, by August 1992, the North American Free Trade Agreement (NAFTA) between Canada and the United States of America was already in place. In South and Central America, trade agreements already exist which could link both northern and southern hemispheres into an economic union. Some of the agreements already in existence are the Andean Pact linking Bolivia, Columbia, Ecuador, Peru and Venezuela; the Latin American Integration Association (LAIA - formerly LAFTA - the Latin American Free Trade Association); Mercosur, a union between Brazil, Argentina, Uruguay and Paraguay and CARICOM. These have been ignored and bypassed with customary US arrogance and indifference. The inclusion of an accession clause in NAFTA makes it highly probable that other countries of the South will join this particular union. Countries of the Caribbean region, constrained by their economic circumstances, are expected to opt for
membership within NAFTA, hoping to increase foreign exchange earnings. In fact, states within the Caribbean Basin have already signed "Framework Agreements on Trade and Investments" with the United States. These are nonbinding agreements allowing for the removal of impediments to trade and investment. Almost every country in the Caribbean and Latin America has signed these accords which seek to "free up" the markets to US goods and capital, and transform states into suitable trading partners. The EAI has therefore laid the framework for the appropriation of the biodiversity of the region to proceed as TNCs sweep the South for its resources. In particular, the swaps of the EAI lead right into the trap of TRIPs, making it "legal" to commercialise and plunder what has already been appropriated. This takes us to NAFTA, the next logical direction.

2.12. From Structural Adjustment to NAFTA: The Significance of Trade Related Intellectual Property Rights (TRIPs)

Of the final leg of the Uruguay Round of negotiations at GATT, in the face of US wheeling and dealing to reform global trade in agriculture, Kevin Watkins comments,

... the US - or, more accurately, the giant grain-exporting corporations which dictate its GATT policy - is using the Uruguay Round to prise open Third World markets for its surpluses and reinforce food import dependence. At the outset of the Uruguay Round ... the then agriculture secretary, John Block, ... commented: 'The idea that developing countries should feed themselves is an anachronism from a bygone era. They could better ensure their food security by relying on US agricultural products, which are available in most cases, at lower cost' (Watkins, 1992: 34).

Caribbean economies export a large percentage of what they produce. What they consume is largely imported from outside of the region. Having little control over the prices of
what they buy and sell, these countries, straddled as they are with staggering debts, are extremely vulnerable. Present day terms of trade arrangements, such as those determining CBI - eligibility, consist of oppressive conditions which allow for retaliation and enforcement by the US. Similar terms citing “national treatment” in GATT (WTO) and NAFTA have allowed the US to engage with Japan and Canada in trade wars in 1984 and 1994, respectively. Under the CBERA, it is appended that “reasonable access” must be provided by Caribbean countries to US companies. Further, the CBI-beneficiaries must not protect or promote their own industries or exports in a manner which (as determined by the US) “distorts international trade”. This precedent governing access has been repeated under US lobbying and insistence in clauses governing NAFTA and GATT (WTO). Particularly where intellectual property rights (TRIPS) are concerned, GATT (WTO) and NAFTA, in their jurisdiction over international trade and the imminent Pan-American trade zone, allow the US unprecedented power in enforcement through the withdrawal of market access for exports from non-compliant countries.55 Prior to the completion of the Uruguay round of negotiations, led by Ed Pratt, chairperson of Pfizer,56 who moved intellectual property rights to the top of US trade agenda, the US began to bully other countries into according more protection to patent and copyrights of business interests, threatening non-cooperation with the loss of access to export markets. Pratt reports how, in order to get IP rights onto the GATT agenda, he first formed the Intellectual Property Rights Committee (IPC), an alliance of 13 major US corporations which decided on the interests they wished to seek in international trade negotiations. Having established this, the

55 Countries which do not enforce agreements to intellectual property rights as per the terms of these treaties.

IPC, a conglomerate of transnationals such as Bristol-Myers Squibb, Hewlitt-Packard, DuPont, General Electric, IBM, Time Warner, Pfizer, Rockwell, Monsanto, Johnson & Johnson, Proctor & Gamble, FMC Corporation and Merck, then approached the Europeans and the Japanese to strengthen their alliance. The IPC chose to bypass the World Intellectual Property Organization (WIPO), this body being considered "inadequate to the task" since, according to Pfizer's chairperson, "as part of the UN system WIPO identifies with the special interests of the very governments in the developing world who abet the theft of intellectual property." This statement from Pratt reflects the dispensability with which both the UN and the South are viewed.

One of the best known examples of how the US uses their laws to impose sanctions against less powerful "allies", is illustrated through that country's invoking of section 301 of the US Trade Act of 1974. This action places countries (identified in an annual review conducted by the US Trade Representative [USTR]) whose policies are "discriminatory", on a "301 watch list." These countries are expected to negotiate with the USTR in order to arrive at making amendments to their intellectual property laws. Non-compliant countries find themselves listed on a "priority watch list." The imposition of sanctions against these countries and the barring of their exports from entering the US market usually leads to a quick change of heart in favour of the US demands. Both Canada and Mexico have been placed on the "301 watch list". Both were forced to submit to US pressure. The Pratt-led Committee for Trade Negotiations, in its attempt to include TRIPs at GATT, coordinated its efforts with the office of the President-designated ambassador for international trade negotiations - Clayton Yeutter, (the United States Trade Representative) further merging with two industrial organizations in
Europe and Japan—UNICE (the Union of Industries of the European Community) and Keidanren. Despite resistance from countries in the South, in which Brazil and India\textsuperscript{57} played leading roles, the codes protecting US claims to property were included in the final Dunkel Draft of the Uruguay Round tabled on December 20, 1991 by the Director of GATT. This particular draft TRIPs code, in according time to countries of the South to phase in protection for corporate patents, did not meet with the satisfaction of the US corporate giants of the IPC who sought ways to advance their interests, demanding amendments to the TRIPs text while seeking negotiations within NAFTA to improve their positions. Chapter 17 of NAFTA\textsuperscript{58} which duplicates and extends the precedents set out in the draft GATT text on TRIPs is viewed by US corporations as a considerable advance. But, the corporate community is still not satisfied with their achievements. The IPC has requested that further "improvements" on NAFTA should be sought in future trade negotiations by the US government citing its non-agreement with the exclusion of biotechnological inventions from patentability in the GATT TRIPs text. The GATT text, itself a somewhat shaky attempt to deal with issues of a profound ethical and moral nature which ought to be the subjects of national and international debate and security concerning the patenting of life forms using plants, animals and even human beings, offers the compromise position, that in 1999, the agreement on property rights concerning life forms will be reviewed. It is certain, meanwhile, that future signatories to NAFTA will be forced to agree to the demands of the biotechnology/bioengineering transnational giants as they seek to extend

\textsuperscript{57} Brazil was placed on a Super 301 charge list with India and Japan in 1989. By 1990 more than 50\% of countries had been charged with failure to abide by intellectual property rights.

their power through enhanced intellectual property rights despite the fact that Indigenous Peoples, Third World Network, RAFl, GRAIN, other NGOs, and the World Council of Churches, among others, have called for a moratorium on the patenting of life forms until a number of questions have been publicly addressed. The anxiety of TNCs to see patenting of life become a “normal” trade occurrence links NAFTA back to GATT and the EAI, revealing the proprietary lust behind the debt-for-equity and debt-for-nature swaps designed to facilitate the appropriation of the biodiversity of the Americas.

Indeed, to be considered for benefits under the enterprise for the Americas Initiative and for induction into NAFTA, Caribbean and Latin American countries must sign bilateral treaties on investment and intellectual property rights with the US government.

In order to qualify for accession to NAFTA under the Enterprise for the Americas Initiative, a country must first have a working Structural Adjustment Agreement with the IMF or World Bank or its equivalent. Countries must “demonstrate a commitment to economic reform” through privatization of state enterprises and signing Bilateral Investment Treaties with the United States that involve formal commitments to respect foreign investment and intellectual property rights (Economic Justice Report, Vol. III, No. 3 Oct. 1992: 4).

Almost all Caribbean and Latin American countries have already signed “Framework Agreements on Trade and investment” with the US. The US chose to develop these frameworks because they did not hold the view that Latin American countries could be considered ideal trading partners. Some did not belong to GATT. Some maintained strict investment laws, others presented difficulties in accessing their markets. By choosing to participate in the EAI or to join NAFTA, countries will make permanent the opening up of their economies for unrestricted exploitation by the US. Since SAPs, IMF conditionalities, USAID directed projects, and the commitment to intellectual property rights are all aspects of trade liberalization going “hand in glove” in a partnership of schemes opening up the transnationalisation of the region, siphoning billions of dollars into the coffers of the US, there will be little question as to who is really running the Caribbean and Latin America within the next few years.
2.13. “Backed by Military power”

On June 27, 1990, George Bush announced the Enterprise for the Americas Initiative. This move represented an attempt by the US to structure even more significantly the economies of the Caribbean and Latin America, to bolster US capital, within the events associated with global restructuring and reconsolidation. McAfee (1991) comments that, in the context of the consolidation of the EC, the fall of the Berlin Wall, and the Japanese and West German economic successes, in an attempt to recapture hegemony, “US business will seek to enhance its exploitative advantage of economic dominance, backed by military power, closer to home”. Although this prediction is ominous, it is not far-fetched. The ease with which the US flew into Grenada, Panama and other countries, to “protect US citizens” and to capture “drug dealers” gives us little cause for comfort. The Caribbean is already inundated with US business and personnel. The region is fast becoming an area of violence and drug deals-

The severity of the current economic crisis has exacerbated other kinds of social problems. The Caribbean is rapidly being transformed into a center for drug trafficking, given its strategic location astride the drug routes from South America. Marijuana is grown in and distributed from Jamaica and Belize, cocaine and heroin make their way to Puerto Rico and the Bahamas for distribution . . . money laundering practices have sprung up in many countries - most notably the Cayman Islands . . . International criminal networks involved in gambling and prostitution have also taken root . . . The Dominican Republic now exports prostitutes to Curaçao . . . youth are turning to criminal activity . . . Assault, robberies, even assassinations have increased on all of the islands . . . Added to a general increase in crime and violence is an increasing incidence of violence against women . . . (Deere, 1990: 187-188).

What the Grenadian experience of 1983 showed is that the US will not tolerate an uncomfortable and unaccommodating environment for investment. Violence and crime
heightened by austerity and adjustment policies, and the utilisation by drug barons of desperate individuals to further their objectives, have proven to be new problems of a scale and dimension to which Caribbean security forces are unfamiliar. It will be easy for the US to offer some of their military might to Caribbean governments to help keep criminal elements at bay. In fact, once the US feels that its citizens residing in the Caribbean are threatened on account of violence, it is to be expected, in a pattern which is by now well-recognised, that they will attempt to export a military presence to countries of CARICOM, as they have repeatedly done in South and Central America, either with or without tacit approval by these governments. In Trinidad-Tobago, for example, signatory to a “Framework Agreement on Trade and Investment” with the US, the US Ambassador, Sally Cowal, has repeatedly been accorded headline status in the front pages of local newspapers as she “... calls for action on crime” taking up a vociferous stance from which she has attempted to confront the government in its failure to grapple with escalating rates of crime. This strident call from the country with the second highest number of murders in the world, in which locale children die every thirty minutes from bullets shot from the barrel of a gun, is, to say the least, hypocritical. The frequency with which Cowal has expressed the US position on crime in Trinidad leads one to believe that a US offer to solve the problem will not be far in the offing. Recently, US Marines were in Trinidad burning areas of lands and forests in the “war against drugs”. What foreigners are doing to the water-table and the earth is of little interest to Cowal whose concern is more with capital than with the lives of Peoples of the South. Would the USA accept this imposition on their territory, were the shoe on the other foot?
2.14. GATT/WTO: Struggle and Contestation

The Trade Related Intellectual Property Rights (TRIPs) treaty of GATT can become the most powerful tool for the ultimate colonisation of biodiversity and diverse indigenous systems of knowledge (Shiva, March 1994: 11).

In a March 1994 article in Seedling: The Quarterly Newsletter of Genetic Resources Action International, Vandana Shiva argues that the TRIPs clauses in GATT which pertain to living resources must be transformed into a zone of contestation in which site of struggle the agenda of the corporate elite is confronted by “movements working for the protection of biodiversity and indigenous knowledge”. Shiva urges that those in the vanguard of this ecological, economic and ethical struggle must do so in the awareness that TRIPs pose a threat to popular movements whose interests lie in protecting the biodiversity and culture of the South where biological diversity exists most abundantly, and where, on account of the innovations of Indigenous Peoples and farmers, the use of its knowledge is highly evolved. She foresees that the challenge posed for nation states lies in whether they choose to safeguard the rights of communities and farmers as opposed to protecting the outreach and unchecked capital accumulation of transnationals. Shiva’s warning has not come soon enough. In India, W.R. Grace, a giant agro-chemical TNC, has taken out a patent for the neem tree. Shiva and Mies (1993) demonstrate how GATT allows for the “restructuring of power around food,” allowing under “free-trade,” the freedom for transnationals and agribusinesses to remove food production from farmers in both the South and the North, placing this activity squarely in the global tentacled reach of the corporate giants while driving indigenous communities, small
farmers, women and peasants out of subsistence agriculture or business. Shiva evokes some of the terms from the Dunkel Draft which illustrate lucidly the overt attack on small farmers as a policy deliberately designed under the auspices of GATT. She states, in words reminiscent of the impact of the “Green Revolution” on agriculture -

The draft agreement has clauses for ‘structural adjustment’ for ‘producer retirement’ and ‘resource retirement’ which is merely a convoluted way of stating that farmers and their resources should be treated as surplus and dispensed with through ‘programs designed to remove land or other resources, including livestock, from marketable agricultural production’. This includes violent mechanisms such as wasteful slaughter of livestock (1993: 235).

She highlights how farmers have been/will be relegated to the ranks of a surplus population according to this agreement- into a reservoir of labour to be drawn on and dispensed with according to the dictates of a global economy restructuring according to the needs of capital. Citing statistics for the US, Shiva states that between the 1970s to the early 1980s, the indebtedness of farmers rose from $120 billion to $225 billion. Between 1950 and 1960 the US farming population fell by 30 percent. Between 1960 and 1970, it fell by a further 26 percent. From 1981 onwards, 600,000 small farmers were driven off their farms (Mies and Shiva, 1993: 236). According to Shiva, a conservative assessment of the impact of trade liberalisation on India indicates that growing hunger will be on the increase by the year 2000. She supports this on the basis of a 1990 report written by Frohberg, Fischer and Parikh60 expressing the ominous prediction that the entry of agribusiness into the Indian economy will

lead to a 26.2 percent reduction in agricultural consumption. Agricultural liberalisation will, according to these researchers, by the year 2000, create a 5.6 percent increase in terms of the numbers of hungry in India.

Cheap imports dumped on countries of the South damage/destroy food security possibilities while adding to the debts incurred on a nation’s balance of payments. Further, GATT allows for the disciplining of countries through cross-retaliation as has been demonstrated repeatedly in actions taken by the US against Canada. Another dangerous feature of GATT allows TNCs to dictate the setting of food safety standards. Expressing that measures both sanitary and phytosanitary must be “harmonized” in order to offset their negative impact on trade, GATT has stated that standards will be established by agencies such as “Codex61 Alimentarius Commission, Dupont, Chevron, Monsanto, Merck, American Gnanud, Mitsubishi, Shell or advisors to Codex”. GATT is paving the way for big business to appropriate global control of food production. In the article, “US discouraging mandatory food labelling, groups say” carried in The Globe and Mail on October 26, 1994, Jeremy Rifkin, a spokesperson for the International Network on Genetically Engineered Foods stated that,

... the US government, under pressure from drug and biotechnology companies, is pushing hard for its proposed Codex standard to be adopted by the General Agreement on Tariffs and Trade, soon to be renamed the World Trade Organization(Rifkin, 1994).

Rifkin was a member of a coalition of US food groups protesting outside an Ottawa UN health officials’ meeting. The coalition charged the US with “... pushing its major trading

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61 Codex is a spin-off of two UN agencies - FAO and WHO. It sets “voluntary” world food standards.
partners, including Canada, to discourage mandatory labelling of genetically engineered foods". The sanitary and phytosanitary articles are particularly troubling because the standards which will be imposed through GATT will really be set with the view toward promoting the interests of transnationals. Commenting on the dangerous precedents established in this area, Shiva notes that, according to the GATT criteria of standards, "... genetically-engineered organisms introduced by TNCs can be treated as 'safe,' and organic food exported by the Third World can be treated as 'unsafe'." This kind of stance, when adopted by powerful, developed countries hooked into an all-pervasive communication system, will lead to a position in which more food produced in the North under dubious and dangerous conditions, subjected to irradiation and feeding and rearing practises which give rise to "mad cow disease", will be dumped on countries in the South while the latter's crops grown for export, if not yet replaced by synthetics, will be denied access to markets in the North. Eventually, over time, unless populations in the South and the North refuse to abide by agreements drawn up to support the internationalisation of capital, the production and distribution of food will be monopolised entirely by TNCs as farmers and peasants cede under pressure. Then, the World Bank will resurface to assume the role it intends, well-supported by the transnational pharmaceutical and agricultural giants. In the South and the North, ordinary people will be held ransom if they want access to food.
To conclude this chapter, numerous economic and political developments have operated together to prepare the way for biopiracy and biotechnological colonisation of the Americas. To support these efforts, education has been the subject of structural adjustment reform, as indeed, is well illustrated in the South. The furtherance of a new model of education premised on science and technology is evident in the Americas where Ministries of Education, in collusion with the science establishment, have been decimating public education to provide a space for the transnational pharmaceuticals to fund, redirect and restructure new models supportive of the role which they lust after in the new world economic order. I turn to a discussion of knowledge production and the spread of ignorance in the following chapter.
Chapter 3

The Education Agenda: Drug Pushers And Knowledge Cabals

3.1. Handmaiden of Imperialism

This chapter examines the connections between the crisis in the South and the part played by the predominant sciences evident in the periphery in precipitating, maintaining and accentuating the crisis. The educational state system is an ideological structure which serves the dominant classes, demonstrating the relationship between the economy and the production of knowledge. According to Karl Marx, the class which owns and controls the means of material production also owns the mechanisms of mental production. Thus, how schools determine curricula and the values which they deem to be desirable is not neutral. How the knowledge and values of the school reproduce class and culture in the economy is demonstrative of the ideological nature of the educational apparatus.

In the South, colonial institutions were historically structured after schools in the imperial centres. These institutions served to extend empire and secure control in territories acquired through conquest and genocide. With respect to education, Onimode (1988) tells that, historically, “... bourgeoís social science was initially imported into Africa and the rest of the Third World as the core of the cultural offensive of imperialism in its colonial phase”. He observes that, in the contemporary era, the imperialist character of education has changed minimally, given the retention of colonial mentality evident in modes of thought. Thus, colonial and neocolonial educational institutions persist in producing dominant classes supportive of
imperialism. The entrenchment of Western-imposed models of education in the South is accompanied by the adoption of Western models of development, aptly described by Onimode (1988) as an attempt to “... replicate decadent Western development in these poor countries”. Trenchantly, Onimode records that the “nostalgia” of the West for attempting to reproduce “Western development” in countries of the South is fundamentally flawed. This is evident through the obvious, ignored position—

its refusal to recommend the adoption by underdeveloped countries of the Western model of capital accumulation by expropriation - because capitalist accumulation in Western Europe, North America and Japan was achieved through inhuman slavery, the exploitation of American plantations and mines, the sale of opium to China and the expropriation of the grazing lands of American Indians (and their genocidal annihilation) and of the common lands of the European peasantry in the violently imposed enclosure movement(1988: 34 -35).

As Onimode eloquently forwards, the deepening crisis in the South is intimately connected to the system of education which legitimises “capitalist class dictatorship”. The educational apparatus, in its perpetuation of Western theories and policies supports the creation of mass poverty. Hence, in serving the interests of capitalism, ideologically, the educational system is a servant of imperialism.

The role of educational institutions in extending and consolidating empire in the South is well-documented (Amin, 1974; Frank, 1970). What is not so well-known, however, is the extent to which the colonial powers utilised indigenous knowledge to extend the crude medicine which they practised. As a parallel, for instance, it is not by accident that the first successful heart transplant in a white patient was carried out in South Africa in the seventies by
a white medical doctor. Oral records have transmitted that enslaved people in the Caribbean were brutally used in experiments designed to further claims to competency by those professing the practice of medicine. Further, these individuals appropriated the medical knowledge of the indigenous and enslaved in the region as freely as they do in the contemporary period. Shameless accounts of both print and oral records tell of the spiriting away of seeds and medicinal plants by European explorers/plant hunters, and of the establishment of gardens boasting the cornucopiae of the colonised in the metropoles of all of the colonising powers in the history of the South. This biopiracy, and its connection to research, educational institutions, the creation of Western expertise, and, ultimately, the furthering of capital accumulation in the West, extends backwards into time. Whether in Africa, Asia, the Caribbean, Latin America or on Indigenous peoples’ sacred lands, the pattern has been remarkably similar. Rodney (1972) and Williams (1972) have graphically documented how Europe underdeveloped Africa, furthering the industrialisation of Europe. To give a true picture, however, of the benefits accrued on account of seizure of the resources of the South, for instance, historical research and analysis must be undertaken on the appropriation of the region’s indigenous and medicinal knowledge. Although history has made reference to the much sought after “spices” and the importance of the acquisition of these items in the European expansion of empire, acknowledgment of the contribution of indigenous medicine to the enrichment of the scientific, medical establishment has been cursory. The urge to colonise this vast resource, even as it has led over the centuries to the amassing of fortunes by European medical practitioners and drug companies, continues in the contemporary period to contribute to the pauperisation and near-
enslavement of communities having custody over medicinal plants and knowledge about healing. Of the past, one writer tells euphorically, that,

... within sixty years of discovery of America, Spanish galleons left the New World loaded with balsams of Peru and Tolu, sarsaparilla, and coca leaves containing cocaine, thus starting a brisk trade in crude drugs. Botanical gardens were started, and in 1568 Nicholas Monardes, a Seville physician, wrote a book about South American plants. (Kreig, 1964: 174).

Writing of “plant explorers” and “adventurers” on expeditions of high adventure in remote jungles to meet “savage Indians” and “medicine men” in early collaborative projects between universities and drug companies, Kreig (1964) recounts the exploits associated with this “trade”, a misnomer, to say the least. This “trade” continues today under “international” agreements. People of the South refer to this activity as biopiracy. This is not the full story, however. For biopirates to appropriate freely, they invariably engage in land theft, ecocide and genocide. History has changed minimally. The struggle to monopolise plants and the growth in colonial countries of botanical monopolies were directly attributable to the spread of conquest and empire. Lucile Brockway (1979) provides extensive historical details of the lengths to which European colonising powers went to appropriate and control plants from the South. Had this information been available to school children, the biodiversity of the region would have been jealously safeguarded. Instead, the educational apparatus has aided and abetted in the continuous spread of empire in an insidious but deadly manner, to the benefit of outsiders.

... the botanical chess game has had long-term implications for the development and underdevelopment of the Third World that simply cannot be exaggerated. Huge commercial empires were created from coffee, tea, rubber... the profits from these new plants fuelled the industrial revolution... Europe’s diet improved directly with a host of new food plants... with the introduction of new pasture plants from Africa, and Latin America. The new
plants had an impact in the textile industry and in every facet of the fledgling chemicals business ranging from paints, dyes and resins, to medicinal preparations. (Mooney, 1983: 85,87).

The parallels between 1492 and the present era are tremendous. The world has come full circle to a period in which the benefits accrued from the conquering of territory are at the heart of the frenzied spread of "globalisation". Collaboration between universities and transnationals is occurring on a global scale in order to further expediency in biopiracy - the contemporary imperial international initiative. RAFI Communique reveals in its September/October 1995 issue that there are ventures being implemented in the Americas on an enormous scale. With reference to these expeditions, Virginia Technical University supported by the US government and its private sector fundor, Bristol-Myers Squibb (USA), is collecting rainforest plants in Suriname, documenting Indigenous Peoples' uses of plants and setting up a "Shaman Apprentice Program". Suriname is already a victim of debt-equity swaps. Caapi Associates (USA) is collecting medicinal plants from the Amazon in Brazil, the country with the most biotechnology centres in the Americas. Brazil is also a candidate of debt-for-equity swaps. Caapi claims to be providing employment for the poor and the indigenous, and to be "teaching" the government of Brazil how to value its resources. In Belize, plants identified by Ix Chel Tropical Foundation are being transferred to centres participating in the USA National Cancer Institute's phytomedical screening program. In 1995, 1500 such plants had been removed from Belize. Monsanto Corporation (USA) focuses exclusively on Indigenous Peoples' medicinal

62 After the USA, the largest population of Africans in the diaspora resides in Brazil. Given the sordid record of environmental injustice visited on communities of colour in the USA by resident transnationals, it is expected that biotechnology industries linked to the pharmaceutical companies will be even more oppressive operating in countries where the record on racism against the African and Indigenous communities is also deplorable.
plants. As part of a US backed government project, Monsanto will receive through its conduit, Washington University, samples of plants removed from the Peruvian Amazon. Shaman Pharmaceuticals (USA) is attempting in Latin America, Africa and Asia to acquire indigenous knowledge from traditional healers as primary informants. They hold two patents on drugs from information gleaned from Indigenous Peoples. The Foundation for Ethnobiology (UK), an organisation domiciled in Oxford, England, is roaming the entire world in pursuit of access to and information about plants. In Thailand, this Foundation recently sought to “exhaustively inventory the ethnobiological knowledge of the Karen people”. RAFI has unearthed some interesting details about this Oxford institution. The Foundation’s financier in Thailand is Parisian handbag manufacturer, Louis Vuitton. Its president, Conrad Gorinsky, an ethnobotanist, holds European patents on two medicinal compounds originating in the Amazon. Cunaniol, one of the two, is used by Indigenous Peoples to produce animal toxins. Rupununine, the other patented compound, like cunaniol, comes from the Rupununi region of Guyana, home to numerous Indigenous Peoples and site of the Smithsonian’s Biodiversity Conservation Project. Both compounds are claimed to be useful in the treatment of skin lesions, tumours, fertility, cardiology and neurology. Guyanese will now have to pay for the privilege of using their indigenous plants, the knowledge of which has been appropriated from the Amerindians.

3.2. Empire and Education

In Chapter 2 where the fraud conducted by the IMF in Trinidad-Tobago is examined, a number of reasons are suggested for the haste in which this twin island state was recruited into the camp of debtor nations in the Caribbean. Analysts have overlooked two compelling reasons,
however - possibly the most urgent of them all, for fully grounding an understanding of IMF meddling and misrepresentation. Trinidad-Tobago has a state-of-the-art medical sciences research teaching centre attached to the university - the Eric Williams Medical Sciences Complex. This country is conveniently located twenty-seven miles away from South America, the continent with the richest remaining biodiversity in the world. Aspiring to high levels of consumerism on account of tastes acquired during the petrodollar windfall of the seventies, the leadership and elites exhibit a favourable and unquestionable attitude toward new technology and, for the most part, an unswerving faith in Western developmental models. Formerly referred to as the "Nigeria of the Caribbean", heavily indebted Trinidad-Tobago is anxious to attract foreign capital to defuse the tension created through unemployment, retrenchment and, relatedly, crime. With declining government funds being made available to the university at St. Augustine, in the face of severe health cuts and the non-availability of drugs in public hospitals, it must not have been hard for foreign capital assisted by the World Bank to impress upon the university the need to accept the generous offer of outsiders to assist a significant institution of learning. To top it off, this offer included the financing of new structures to keep pace with biotechnological breakthroughs, this new paradigm of development being touted as the promise for the future. Its promise? To bring the periphery into the same state of grace as the centre; to draw Trinidad-Tobago into the vortex of development which has managed to elude

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63 And, perhaps destined for the same disastrous economic fate which has befallen a heavily militarised Nigeria taking orders from Shell Oil and viciously liquidating Indigenous People and Progressives such as Ken Saro-Wiwa in their struggle to maintain their land. Interestingly, OPEC member, Nigeria has been so pauperised by transnationals that electricity is no longer affordable in many cities. This seems to be a trend in Africa-Namibia, revisited by extractive transnationals cannot afford to pay for the generation of electricity to satisfy the needs of its citizens. On 22 June 1996, The Toronto Star reported that 22 million people in Sub-Saharan Africa are facing the threat of famine. These warning signs exist to eloquently foretell where the Caribbean and perhaps other countries of the South are headed.
its pursuit for more than 500 years. In his recent address, as two new buildings were recently opened and handed over to the campus at St. Augustine, the Vice-Chancellor of the University of the West Indies foresaw that the unveiling of the Faculty of Agriculture’s Computer and Food Biology Laboratory taken together with the Faculty of Natural Science’s Biotechnology and Tissue Culture Laboratory would enable Caribbean people to "... get off our haunches and move the region forward by deliberately increasing the trained and skilled people ... to support... economic development". Sir Allister McIntyre should avail himself of some of the case studies on biotechnology and the South. Obviously, ignorance on the part of the "educated" in the South is bliss for those whose goal it is to biocolonise utilising the agents of biotechnology and intellectual property rights. To this end, the university has been coopted in this imperial mission as has been lucidly described by Onimode (1988).

Trinidad-Tobago has consented to the adherence of intellectual property rights as a pre-condition for membership in NAFTA, and, as proposed by the USA, as a strategy to remove barriers to trade. The permutations of this arrangement, struck up in the interest of the US are far-ranging. The two developed world countries in the NAFTA bloc are Canada and the USA. In Ontario, Canada, with next to little notice, the newly elected Premier, in what he snidely and crassly terms a "common sense revolution" has made strident moves toward privatising health care and education. It is my contention that these actions are the direct implementation of unofficial SAPs from the IMF, so close are they in keeping with what has occurred in countries of the South under IMF governance. While a number of hospitals - particularly those catering
to “interest groups” according to Harris - are carded for closure, research hospitals linked to university medical programs have seen funding from private sources skyrocket. Under NAFTA, according to the principle of “national treatment”, the delivery of health and legal and financial services, among others, is open to any member of this bloc in any of the countries. It is my belief that, using the North American Free Trade Commission as an agency to push for the allowing of American doctors to head medical research centres in Canada utilising the “harmonisation of professional certification standards” phrase, the USA will assume powerful leadership positions in Canadian research hospitals and centres, where, an unlimited supply of patients denied access to alternative medicine will be available for the purposes of biotechnological inquiries, since Medicare will cover the cost of these investigations, at least, for some time still.

One of the most important factors guiding the USA in the conceptualisation and shaping of a North American Free Trade Area is the existence of a well-funded government health care system in Canada. Canada’s pillar of health care is one of the pivots on which the biotechnological industry, through its agents in the universities and the pharmaceutical transnationals will feed, in its quest for capital accumulation and power. On 29 November, 1995, Ernie Eves, Finance Minister of Ontario, announced cuts of $400 million (Can.) to

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64 Some of these are Women’s College Hospital serving women and the Wellesley meeting the needs of a large gay, homeless and immigrant population. The idea, of course is to release these groups into the hands of researchers in biotechnological centres where cancer, AIDS, aging and “tropical” diseases (which the science establishment has been working feverishly to link to “immigrant” communities of colour in order to justify on behalf of the government, a closed border policy of immigration to all countries of the South where famine and disease would have taken root (See Chapter 5)) are areas eminently funded by pharmaceutical transnationals for aggressive inquiry. Some of these communities, particularly women suffering from cancer and gay men are being encouraged to take part in “lotteries” in which, when their names come up, they receive the privilege of being able to try a drug which has not yet been subjected to the research and human trials which the regulatory bodies demand.

65 Later, suggested to be closer to $4 billion (Can.).
post-secondary education in Ontario. According to the Council of Ontario Universities (COU), the impact of these cuts will be to “... seriously damage the economies of some regions and the province as a whole”. The November 1995 issue of University Affairs made the timely observation that, with respect to administrative decisions made at the beleagued university, “if a given discipline has low doctoral completion rates, poor job prospects, yet strong undergraduate teaching needs” these needs might be best met by “reducing” them “in favor of more regular faculty appointments”. I suspect that “regular” understands where the funding is being committed. A $10 million (Can.) private gift made to the University of Toronto on 18 October, 1995 is expected to “transform leading-edge biomedical research” at not only this institution but also at its four affiliated teaching hospitals in Toronto - Mount Sinai Hospital, the Hospital for Sick Children, the Toronto General Hospital and Baycrest Centre for Geriatric Care. This funding will allow for selection committees to hire, through an international search, appropriate chairs. These hospitals, including the Faculty of Medicine at the University of Toronto, are engaged in research involving the identification and characterisation of genes. In view of the pending hospital closures and mergers, is the expectation therefore, that Ontario’s sick will present only the diseases which fall within these hospitals’ research protocols? Is it rather that Ontario’s sick will be used, regardless of their symptoms, as human guinea pigs to further the research interests of TNC fundors of hospitals and the university? Will people on family benefits and social assistance, for whom special identity cards with clients’ fingerprints are currently being produced by the Royal Bank in conjunction with two companies (Unisys, an American corporation, and Great Western Insurance Company), be easy to identify and target for research purposes? Since it is intended that these cards carry sensitive health care
information, how can private companies be accorded the privileged position such as that in which they have been placed?

Queen’s University in Kingston, Ontario has received $250,000 from the Richard Ivey Foundation to “enhance the understanding and protection of the world’s biodiversity”. Glaxo Canada Inc. has pledged $7.6 million to the University of Alberta which has recently opened the Alberta Heritage Foundation for Medical Research. One of the principal researchers heading the 19-member research team at Heritage Foundation is Lung-Ji Chang, formerly of the US National Institutes of Health (NIH). As discussed in Chapter 1, the NIH is a financial backer of the Human Genome Diversity Project and one of the early applicants for patent protection for a series of more than 2000 partial gene sequences.

The changes being effected in the health care sector in Ontario, Canada show interesting parallels with some of the developments occurring in Trinidad-Tobago. I have already suggested that the latter country is of special interest to the biotechnological industry because of its proximity to South America and on account of the existence of a modern training facility for doctors in an English speaking environment well-supported by adequate communications networks and infrastructure. While collection efforts are underway in the Guianas, the infrastructure to support the work of conservation is not immediately available in Guyana.

Further, in North America, new drugs are regulated by the Food and Drug Authority (FDA) in the USA and by Health and Welfare in Canada. Before a new drug receives approval from these bodies, it must meet certain criteria. Numerically stipulated human trials are usually mandatory before a new drug is permitted to go on sale. In the USA there is well-documented
evidence to show that particular populations have been singled out historically for some of these human trials. The CIA funded research in the 1950s on African American prisoners at Louisiana State Penitentiary using LSD to produce “catatonia and stupor” in their subjects. In this research, the Agency was investigating whether “loss of speech, loss of sensitivity to pain, loss of memory, loss of will power and an increase in toxicity in persons with a weak type of central nervous system” might result. In the 1960s, a number of centres and programs were established and funded by the National Institute of Mental Health (NIMH) on passing of the 1963 Community Mental Health Centers Act. A researcher with the CIA-LSD project referred to immediately above founded and directed the NIMH. While these centres stated that their objective was their patients’ health, it has been found that the institutions “became an easy means of addicting thousands of people to psychiatric drugs”. African Americans were twice as likely as Whites to enter a Community Mental Health Center (CMHC). After admission to a CMHC, statistics show that there is a doubling in patient arrest rates for engaging in criminal activities. The “Violence Initiative” has been one of the most covert programs funded by the NIMH. A proponent of psychosurgery to curb violence in African American ghettoes, Ernst Rodin, director of the Lafayette Clinic in New York, recommended that “medical technology” be employed to solve rioting in poor communities peopled by African Americans. Following on this suggestion, Louis Jolyon West, the former head of the University of California Los Angeles’ Neuropsychiatric Institute (NPI) proposed that African American offenders connected to the Los Angeles riots of the 1960s be “treated” with castration and psychosurgery since their race and their genes predisposed them to violence. West proposed the use of a chemical- cypionate acetate, to induce castration. In 1973, West established a Center for the
Study and Reduction of Violence in an African American and Chicago neighbourhood. There, he proposed to study women, children, prisoners and autistic or "retarded" children. One of his "treatments", the "homing device", involved the implanting of electrodes in the brain.

The behaviour patterns of Africans continue to be a major focus of the psychiatric and medical professions. In 1983, Duke University Medical Center in North Carolina was the recipient of close to three-quarters of a million dollars of research funds to investigate the aggressive behaviour of African American children in "high risk areas". In 1992, Frederick Goodwin, psychiatrist and director of the institute with responsibility for NIMH compared youth of African American descent as being "hyperaggressive and hyper-sexual monkeys". Under his guidance, the NIMH undertook to launch a "National Violence Initiative", a program designed so as to promote "disease prevention". Targeting Africans and Hispanics, in particular, the NIMH proposed to use "biological markers" to predict which children were likely to develop criminal behaviour. As recently as 1993, the NIMH claimed that through their program, "... violent behavior eventually can be curbed by manipulating the chemical and genetic keys to aggression... anti-violence medications conceivably could be given, perhaps forcibly, to people with abnormal levels". Interestingly, as research mushrooms to find the genetic basis for criminality and aggression in African American communities, the African American Coalition for Justice in Social Policy reports that "NIMH's psychiatric research and the growth of the community health network parallels the increasing statistics of crime and violence among African Americans".

The American scientific model of "disease prevention" is currently setting the agenda for similar types of research in Canada and the Americas. The Clarke Institute of Psychiatry
linked to the University of Toronto is currently attempting to study Caribbean youth who have been “successful” in schools. The Culture, Community and Health Studies Program at the Clarke has sent flyers to guidance counsellors in at least one inner city school with which I am familiar asking for assistance in identifying research candidates. The project called “Successful Adaptation of Newcomer Caribbean Youth”, is funded by the Immigration Settlement and Adaptation Program of Citizenship and Immigration Canada. Studies on African-Canadian youth by insiders well-placed to interpret and analyse their experiences in the Canadian educational system are readily available. Dr. George Dei of the Ontario Institute for Studies in Education (University of Toronto) and the National Association of Black School Educators (NABSE) have produced compelling studies of recent vintage. The cutbacks in education and the mergers in health in Ontario have occurred, for so the public has been informed, to eliminate duplication. The Clarke could have avoided duplication had it chosen to collaborate with a fellow University of Toronto researcher. On the other hand, perhaps the study funded by Immigration Canada is housed within a Psychiatric Institute for very particular reasons. The “Violence Initiative” reminds us however, that we cannot cease to be vigilant when “mental health” research targets people of colour.

“Scientific” research relying on the manipulation of genes to control disease and even, violence, is growing in the North and, relatedly, in the South. In countries where there are significant populations of street children, such as in Brazil, Haiti and Mexico, research in biotechnology will thrive. A little food or a blanket can easily be exchanged for some blood or a few cells of DNA here and there. More and more children whose parents have been evicted from their lands, have been laid off or have become victims of the “new” diseases, are living on
the streets in the South. The Commonwealth Caribbean is seeing an influx of children take to the streets for the first time since independence.66 Human drug trials can easily be agreed to by hungry and diseased children promised food on a daily basis for a set period of time, until they have been observed enough to satisfy researchers. The world might never know about the racist and oppressive practices of pharmaceutical TNCs, and as for the countries involved, the police and military would be relieved of having to sweep the streets of indigents as frequently since the dispossessed will now be liquidated even more silently than has been the custom. Having access to populations of unwanted children on whose behalf no one advocates, will allow research to go beyond the boundaries already established, to the third stage suggested by Hubbard (1995).67 Similarly, the new Agriculture facility in Trinidad-Tobago will allow for the testing of stronger pesticides and the experimentation of crops using genetically modified organisms (GMOs). In other words, the testing ground for highly questionable medical and agricultural research will extend throughout the Americas, particularly in countries of the South and in the South in the North. When Robert McNamara, former US Secretary of State and former President of the World Bank suggested that the “creation of famine and sickness” could accomplish “demographic reduction against the will of populations” (Lanctot, 1995), the genocidal policy of the USA towards Peoples of the South was being expressed. That the time is now here and that sickness and hunger are weapons being utilised to enslave and eliminate

66 As stated in Awang (1988), growing numbers of street children are a visible phenomenon in all countries of the Caribbean. A recent study suggests that 8,000 children live on the streets of Port-of-Spain. Many are targeted in this era of re-colonisation, matched by a growing European presence in Trinidad-Tobago, by agents of child prostitution, on an individual or as a corporate interest. Children have been detained at the airport by the police as they were being taken out of the country, to be used in child pornography and/or to satisfy the growing sickness of sexual depravity.

67 See Chapter 4 for a discussion of the “third stage” of which Hubbard speaks.
populations of the South can no longer go uncondemned and uncontested. Education is being harnessed in this mission.

3.3. **Intellectual Recolonisation**

The education agenda is a necessary catalyst for speeding up the complete privatisation of the Americas and Canada. The generosity extended in the direction of the University at St. Augustine, Trinidad, through private sector loans for the construction of new buildings, falls within a pattern for which ample documentation and analysis exist. The World Bank has stated that education in African universities is of "low quality". 68 Despite this assessment, they have facilitated the advancement of private sector loans for research in biotechnology at African universities. I skirt the discussion which has taken place with reference to continental Africa.

With respect to countries of the South, the parallels in political economy are obvious-

The process of recolonisation is being done by creating conditions in Africa under which Africans cannot produce on equal footing in the world market of ideas - except of course, at the service and under the control of ‘international agencies’... these agencies determine the direction of research, the content of what is to be studied, written and voiced on the continent.... With the introduction of SAPs in most African countries, academics found themselves among the worst paid in the entire world.... The main methods of defunding African academic institutions is the massive cuts in subsidies to education which the IMF and the World Bank impose on African governments as part of their conditions for new loans.... Most of the research in... universities is now being done on commission, for foreign institutions, agencies or individuals.... This pervasive academic financial drought has led to the taking over of the infrastructural facilities of African universities by foreign agencies.... These agencies reorganise courses they fund while normal curriculum courses are condemned to slow asphyxiation and marginalisation.... the control of the African academic life by foreign agencies is directly established through the loans which the World Bank gives to African governments.... (Oduor, 1994: 30).

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68 See "The World Bank and Education in Africa", *Race & Class*, 34, 1 (1992), pp. 51-60, written by the Committee For Academic Freedom In Africa (CAFA). CAFA is an organisation of teachers and students in North America who aim to give support to and express solidarity with their colleagues in Africa who represent one aspect of the casualties of WB/IMF cuts to education.
In the field of Agriculture, the work of research centres and universities is fundamental to the extension of transnational control in the production of food and the ownership of medicinal plants. Similar pressures to those outlined by Oduor above are being brought to bear on the South to undertake research which poses considerable risk to health, ecology and food security. The African continent is being ravaged by disease and food dependency institutionalised through WB/IMF policies (true to form to the recommendation made by Robert McNamara). The “collaboration” between universities in Africa and TNCs points the way to may well transpire in the rest of the South, imminently. Pro Vice Chancellor of Biochemistry at the University of Zimbabwe, Professor Chetsanga, concurs that Africa has attracted as “biotechnology investments” developed world institutions wanting to “... carry out field trials of genetically engineered plants” (GRAIN, 1994). To date, the risks to countries of the South on account of the transfer and harvesting of GMOs has been ignored by the North. Latin America has been systematically used as the testing ground for field experiments. While the industrialised North has adopted regulations concerning the handling of genetically engineered organisms, the South has no such regulations in place. As such, biotechnology products are being tested in the South with increasing frequency unbeknown to the Peoples of the region. Taking into account the considerable hazards posed to the South where indiscriminate and secret field tests are being conducted, at the Biodiversity Convention meeting in Nairobi, Kenya on 24 June, 1994, the Group of 77 and China urged that an international biosafety protocol governing experiments on the “safe transfer, handling and use of living modified organisms arising from biotechnology” be drawn up. The USA was the only
country to state at this meeting that “a protocol is not warranted”. Third World Network (TWN), GRAIN and Greenpeace urged for the protocol to be initiated. TWN provided case studies documenting the export of “hazardous biotechnological experiments to the South”. This NGO spoke of the necessity to include within a Protocol guidelines governing research which would incorporate mandatory adherence to specific terms of reference. Some of these would include the need to inform countries of ecological and health risks and the need to solicit permission from countries prior to embarking on field testing. GRAIN outlined examples of research being conducted in the South in the area of genetic engineering where “. . . countries are being used as testing grounds for the Northern companies that want to avoid the stricter regulations of the North” (Khor, 1994). While the Group of 77, China and NGOs presented a declaration that work start immediately on the drafting of a biosafety protocol “because of the severe risks posed by the transboundary nature of the export of living modified organisms and the fact that Northern companies had already started carrying out hazardous genetic engineering experiments in the South”, the UK and the EU supported the USA position that the Protocol was unwarranted. The Canadian representative took issue with the term “fact” used to reference the experiments cited in the case studies presented by TWN. Canada argued that the “fact” of the matter, as he saw it, was “only an opinion”. As Khor warns in his article urging the development of biosafety guidelines, “as biotechnology develops, we . . . see the advent of biological pollution . . . Organisms that are genetically engineered . . . cannot be recalled (1994: 22). The South is being ushered into an era of biotechnological colonialism of considerable risk to the environment, the biodiversity, the water and the Peoples. Death and disease stalk the landscape of the South under a new guise. Between 1989-1992, field tests
without permission from governments of the South were conducted in Argentina, Belize, Bolivia, Chile, Costa Rica, Dominican Republic, Guatemala, Mexico and Puerto Rico by transnationals such as Monsanto (USA), Calgene (USA), Ciba-Geigy (CH), Campbell/Sinaloa (USA), Asgrow (USA) and CINVESTAV (Seedling, Dec. 1994: 80).

The racism of the developed world and its agents of foreign policy, the WB/MF and the newest mechanism of surplus extraction, TRIPs - continue to fuel the imposition of highly unethical procedures transferred from the North to the South. In furtherance of the third stage of which Hubbard speaks, vested interests in the North seem determined to galvanise public opinion in support of the science establishment’s proposition to construct early warning “surveillance posts” near rain forests and on the outskirts of large tropical cities. Donald Henderson of the Johns Hopkins School of Public Health argues that the USA and other developed countries should spend $150 million (US) a year to fund these surveillance centres which would be supported in their work by “10 state-of-the-art virology labs” (Cowler, 1995). The rationale for the choice of location is because “sanitation and health care are primitive” in the South. At present there are six Level 4 69 laboratories in the world. At the Center for Disease Control in the USA budget cuts have reduced the number of epidemiologists on staff to a mere four. No doubt, some unemployed virologists see biotechnology as the industry to revive their flagging careers, extend their fortunes and confer on them status and privilege in the scientific community. Perhaps these are the ones who are vociferously proposing surveillance centres and virology laboratories. The scare tactics being disseminated through the Western media are an undisguised attempt to force people in the

69 For containment of the most virulent, communicable diseases which exist.
North to support the medical and pharmaceutical lobby to establish, in an open manner, locales for genetic experiments and sites for an intensification of the appropriation of the biodiversity of the South. In the South the diseases on the “rise” are AIDS, malaria, hepatitis, tuberculosis and other diseases which had been formerly controlled or eradicated. One in five persons in Uganda has AIDS. The landscape of the South is being devastated by disease and famine. Robert Gallo, the “co-discoverer of the AIDS virus” has issued a strident call for surveillance centres in the South. Khor (1994), however, states that, according to an internationally renowned theoretical biologist, “... if the AIDS virus was caused by genetic engineering, ... we may never know. But even if it wasn’t, it could have been”. Having abandoned the Haitian origination theory, the medical establishment continues to train doctors to propagate the notion that AIDS originated in Africa. On the heels of the Ebola “outbreak”, well-indoctrinated doctors may become the mouthpieces for those wanting more direct engagement with the “diseased” inhabitants of the South, whose existence, it may be stated, threatens the survival of the remaining twenty percent of the globe. Fortunes may be amassed by those brave interventionists who rally to treat the sick, many of whom, by some strange coincidence, live in areas of the world in close proximity to rainforests, themselves rich repositories of biodiversity and medical potentiality.

As the Human Genome Diversity Project continues on its mission to inventory the genetic make-up of Indigenous Peoples, its financial backers - the National Institutes of Health of the USA and a consortium of universities and TNCs - are hustling to interview healers and elders in a bid to claim their knowledge of plant medicine for themselves. Shamelessly, numbers of university personnel are engaged in what the West calls “Shaman Apprenticeship”
programs. Exploration projects undertaken by the "plant hunters" rely on extensive observation of indigenous healers and the inventorying of herbal constituents of indigenous plants. Contradictorily, in the North, curanderas and shamans are villified by the science establishment which believes, that by its own appointment, it can choose those among themselves who would be people of knowledge. Essentially these apprentices are motivated by the thirst for profit and power. They possess none of the moral commitment and allegiance to community, society and the integrity of the earth which are the hallmarks of those so called. These biopirates, in their search for green gold, are engaged in criminalising alternative, environmental and naturopathic practitioners in the North. Is their mission to set themselves up as the only possible sources for alleviating disease? Of what use are Indigenous Peoples to TNCs after their medicines have been appropriated? Does the agenda of the "Vampire Project" include the liquidation of healers and other Indigenous Peoples to ensure that treatment of disease will be vested in one authority?

Events conjuring up memories of the witch-hunts of the sixteenth and seventeenth centuries are currently occurring in the Americas. History has come full circle to a time when the male, scientific establishment undertook to exterminate women healers and root doctors in order to set themselves up as the sole knowers of medicine and remediation. This period in history, on which modern science is premised, was accompanied by violence, plunder, genocide and the destruction of the earth. Violence against peoples of the South and the earth has constituted the cornerstone for profit accumulation for centuries. In the contemporary period, the attempt to replicate life itself takes the oppressive model of medicine and science to unprecedented heights to the detriment of all people on the earth, in the final analysis. What the
patriarchal, capitalist, scientific, militaristic establishment is doing to “sell” its vision is the creation of ignorance under the guise of knowledge. Those educational institutions which survive in the restructured or WB/IMF supervised environments will be those which contribute to the spread of this ignorance.

A system of knowledge which enforces the ‘ignorance of ignorance’ has been assigned the prime place in creating the modern world. Science has been called the engine of growth and progress . . . science is assumed to be value neutral and universal and thus is placed above society. . . While science itself is a product of social forces and has a social agenda determined by those who can mobilize scientific production, in contemporary times scientific activity has been assigned a privileged epistemological position of being socially and politically neutral. Thus science takes on a dual character: it offers technological fixes for social and political problems, but absolves and distances itself from the new social and political problems it creates. Reflecting the priorities and perceptions of particular class, gender, or cultural interests, scientific thought organizes and transforms the natural and social order. . . Without the creation of institutions of social accountability and social control, the South will become the laboratory, providing the guinea pigs, the dump yards for all the risks that are to come. . . this has already started to happen; it is not a fear of the future, we are facing it already (Shiva, 1993: 272, 273).

3.4. Rights Of Peoples: Toward Indigenous Collective Property Rights

Western concepts of property rights differ profoundly from Indigenous Peoples’ concepts of knowledge ownership. Assertion of indigenous rights over the knowledge of their Peoples is inherently part of the ongoing struggle Nations face for the right to self-determination. Nations of Indigenous Peoples have expressed concepts irreconcilable to Western notions of land ownership. For millenia, Nations have maintained the struggle to control their territories despite the ever-present threat of predators and invaders. With the paradigm of biotechnology as development being pursued in the restructuring global capitalist
economy, these struggles have intensified. Again, concepts of ownership alien to Indigenous Peoples, are being wielded to secure their land and resources, including their DNA, for appropriation and exploitation.

The concept of Intellectual Property Rights (IPRs), presented as an international legal construct, exemplifies Shiva’s "growth of ignorance" masquerading as the spread of knowledge. Outsider laws, particularly those deviously put together by transnationals to hasten the privatisation of collectively-held resources, have no application in communities recognised as being

... entitled to the recognition of the full ownership, control and protection of their cultural and intellectual property... they have the right to special measures to control, develop and protect their sciences, technologies and cultural manifestations, including human and other genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literature, designs and visual and performing arts (1993 UN Draft Of The Universal Declaration On The Rights Of Indigenous Peoples, Seedling, Dec. 1994, Vol. ii, No. 4: 4).

Suffice it to say, IPRs present the most recent strategy to enable sophisticated theft of resources and knowledge. Armed with patent lawyers to legitimise this Western minority concept of knowledge, transnationals are employing a system of property ownership which contravenes The Rights Of Indigenous Peoples as outlined above in the UN Draft Declaration.70 IPRs are therefore illegal instruments for gaining ownership of Indigenous Nations' resources. Clearly, transnationals are engaged in theft and piracy as they stake claim to the resources of Indigenous Peoples. The spread of ignorance with respect to IPRs must be countered with the sharing of this understanding based on the rights of Nations and Peoples.

70The US, in addition to a number of other G-7 countries, is resisting ratifying the Draft Declaration.
Countries in the Americas which have signed Pre-Accession Agreements to NAFTA institutionalising IPRs as part of their legal national frameworks must be informed that they have signed statements which, (as they relate to the biodiversity of the Americas which is being plundered from Indigenous Peoples) are just like the pieces of paper which devious, treacherous new-comers to the lands presented to First Nations communities. IPRs are the new treaties to ensure land appropriation and territorial control. As before, they are a sham, compromising the sovereignty and integrity of the entire South.

The rights of Indigenous Nations to control their own development are further outlined in the International Labour Organisation (ILO) Convention 169 on Indigenous and Tribal and Tribal Peoples in Independent Countries, signed in 1989. Article 13 (1) establishes that governments

shall respect the special importance of the cultures and spiritual values of the peoples concerned, and their relationship with the lands and/or territories which they occupy or otherwise use, and in particular the collective aspects of this relationship (Seedling, 1995:4).

Property rights in the North are individual and privately held. With respect to Indigenous Peoples, however, international law represented within the UN Draft Declaration, recognises heritage rights. As Seedling (1995) explicates, a glaring differentiation between the former and the latter is that heritage is perceived in terms of community and individual responsibility. Heritage is viewed as a “bundle of relationships” as opposed to economic rights. Outside of relationships, objects have no meaning. Thus Indigenous Nations do not uphold differentiations between art and science, cultural and intellectual property, logic and inspiration (Seedling,
The loss of indigenous knowledge and lands is therefore bound up with the destruction of Peoples. **Heritage rights therefore explicate the rights of Nations to the control and ownership of their resources and knowledge.** In a special report produced by the UN Economic and Social Council (ECOSOC) on the cultural and intellectual property of Indigenous Peoples, heritage is explicated thus-

... everything that belongs to the distinct identity of a people and which is theirs to share, if they wish, with other people. It includes all things which international law regards as the creative production of human thought and craftsmanship, such as songs, stories, scientific knowledge and artworks. It also includes inheritances from the past and from nature, such as human remains, the natural features of the landscape, and naturally occurring species of plants and animals with which a people has long been connected (E/CN.4/Sub.2/1993/28 July 1993 in *Seedling*, Oct. 1995: 6).

Further, since **heritage** includes past relationships bound up with the present, ownership of an aspect of this “bundle” goes beyond logical reasoning, perpetuating ignorance under the mantle of knowledge. Collective ownership and heritage do not refer to time in the present. Rather, they reference the past, present and future relating to knowledge accumulations over long periods of time. The linear rights system being propagated through IPRs is foreign and irrelevant to Indigenous Nations’ centuries-held concepts of ownership. The “**bundle of rights**” associated with **heritage rights** go beyond the debt-for-nature, debt-for-equity and technology-for-biodiversity swaps being negotiated through the GEF of the World Bank and its transnational pharmaceutical partners (*Seedling*, Oct. 1995: 7) with individuals, indigenous or otherwise, who portend to constitute “informed consent” where development projects are concerned. In other words, therefore, conservation projects currently underway in the South are invasions tantamount to war, in which theft of the resources and
heritage of Indigenous Nations is the objective. The leadership role in this assault designed to facilitate the appropriation of the resources and DNA of Indigenous Nations by the USA becomes clearer when framed within this understanding.

3.5. Indigenous Knowledge: The Key To Conservation

On account of the erosion of biodiversity on a global scale, conservation and survival efforts are being initiated by transnationals and institutions of higher learning to “safeguard” species facing threats of extinction for the “good of humanity”. Diversity is disappearing due to the spread of monoculture throughout the world. Yet, in the efforts to conserve, monoculture is the guiding paradigm fostering the work of the crusaders (Shiva, 1993). According to Shiva, biodiversity is “a relational category in which each element acquires its characteristics and value through its relationships with other elements”. Furthermore, Shiva asserts that biodiversity is “ecologically and culturally embedded”. The dominant Western paradigm conceptualising science is hostile and dismissive toward the total worldview of the protectors of biodiversity. The limited understanding of the West informing notions of biodiversity blinds individuals to the scientific management in which the South has been engaged for centuries. The Western conservation project consists of an “arithmetical exercise of collecting varieties”. In the South, by contrast, biodiversity is conserved through cultural traditions, ceremonies and rituals which celebrate the cycles of renewal of the earth. Seeds are saved, freely exchanged and propagated in the spirit of community and generosity set down by ancestors since time immemorial. Engaging in the unconditional sharing of the gifts of nature ensures that these riches will return back to the community, contributing to its survival, and the renewal of cycles of growth and
bountifulness. On account of these practices, prevalent in the South, the rich biodiversity of the earth has been nurtured and protected in keeping with established traditions and the obligation of those present in the here and now to preserve the largesse of the earth for future generations. Thus it is that biodiversity, being relational, cannot be owned. The inherited knowledge which has been utilised in the present to be maintained for the future, is intergenerational. It can belong only to Nations and Peoples. These ways of knowing which incorporate the sharing of knowledge and the collective creation of knowledge govern the lives of Peoples from the South. Intellectual Property Rights (IPRs) seek to displace this worldview which is premised on community and renewal, replacing it with a concept for which the governing logic is the principle of profit.

Because biodiversity is relational as opposed to reductionist, according to Shiva (1993), its conservation implies also the preservation of the “relationship from which derive balance and harmony”. Biodiversity, therefore, cannot be conserved in “fragments” which, to be precise, exist only as raw materials severed from the dynamism of living ecosystems. The Western worldview is numerical as opposed to ecological. It is linear as opposed to cyclical. To the West, biodiversity can be counted and documented as being such and such a number of species. For cultures practising biodiversity, its essence is a web of relationships, the existence of each being intricately bound up with the survival of others. As Shiva (1993) eloquently puts it, for people in India, “on the grand scale this involves a relationship between planets and plants, between cosmic harmony and agricultural harmony captured in navdanya.”71 Shiva tells that the

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71 According to Vandana Shiva, navdanya or nine seeds represent symbolically the renewal of diversity of the plant world, the planet and the social world. In Indian culture, this web of relationships gives meaning to biodiversity, constituting the very basis of conservation over centuries.
relatedness which provides a framework supportive of the practise of biodiversity includes within this paradigm a concept of “sacredness and inviolability”. Because the land and the cycles of renewal are sacred and the very source of life, Indigenous Nations and the Peoples of the South often express their willingness to die for the land so that others might live. Land is Life. To the West, by contrast, seeds are solely the source of profit. To them, the land is to be appropriated from “inefficient” small farmers and peasants operating within the paradigm of land as life to be mechanically farmed, fed and monitored by computers, aerially. This shockingly limited understanding enabling the dismissal of the social, ethical, cultural and economic significance of biodiversity has, in an outstanding expression of ignorance, constructed IPRs, intending to globally replace the wholistic, community-oriented, collective modes of knowledge held by the South with a weapon of capital accumulation. Why should anyone, South or North comply with ignorance masquerading under the guise of knowledge, particularly when this paradigm of ignorance is accelerating the destruction of the earth and all forms of life therein?

In development circles, Indigenous Nations have been considered “backward” and “pre-industrial” to the point of being a hindrance to progress. Yet, the concept of sustainable development, late as it has been acknowledged, is somewhat of a step in recognising that the earth must be conserved for future generations. Problematically, sustainable development has now become the buzzword of some of the most vicious destroyers of the environment - the World Bank and the IMF, transnationals in the extractive sectors and pharmaceutical and agricultural megacorporations. The plunder, violence and the frenzied quest for profits (before biodiversity becomes “extinct”) in which these monoliths are engaged, demonstrate that it is
morally reprehensible for those in the South to continue allowing the managers of capital in the North to continue with their madness. As land is life, the obligation to secure its survival must be undertaken by all in the South to stem the tide of global upheaval which is imminent. The South and the North have to join in the vanguard maintained by Indigenous Nations before it is too late. The example of survival offered below is but one more instance representative of the "backward" modes of knowledge of practised biodiversity which is the lived reality of Indigenous Peoples. Will we allow these forms of knowing to continue to be eliminated?

Benin is the original home of the voodoo religion... Benin also boasts of the most productive lagoon fisheries in the world. Lak Nokoue... produces five times more fish per acre than other West African lagoons. The 16,000 tons of fish taken annually from Lak Nokoue provide vital protein for 270,000 delta residents. In shallow freshwater lakes fed by the annual delta floods... fetisheurs administer the commands of a deity... After the floods recede in the dry season, the lakes are no longer replenished by rain. At that time, fetisheurs forbid fishermen to use weighted nets in the lakes, which have thick, soft muddy bottoms. The fetisheurs say the nets disturb the deity, who will kill the fish... the weights stir up the mud, which releases iron oxide. The iron oxide is usually not toxic to fish when the lakes are receiving plenty of oxygen-rich rainwater, but it is deadly in stagnant water (Stevens, 1994: 63,64).

The majority of the world relies on indigenous knowledge of plants, animals, farming systems, insects and microbes for either medicine or food - 80 percent of the population of the world relies on indigenous knowledge to provide them with medicine; at least 50 percent relies on indigenous knowledge and crops for food supplies (RAFI, 1994). Indigenous knowledge has been mined to fuel developments for profits in megacorporations engaged in agriculture, pharmaceuticals, chemicals, deep sea fish-farming and paper production, among numerous others. The same agents engaged in piracy of indigenous knowledge now speak of preserving
elements of these ways of knowing for the “good of humanity”. Over 90 percent of the remaining biodiversity of the earth is in the tropical and sub-tropical regions of Africa, Asia and South America. In these regions of the world, approximately 100 species per day are becoming extinct. On account of the developmental paradigm based on the model of capital accumulation, more species are lost per week than has occurred in the last three centuries (RAFI, 1994). Interestingly, putting this study into proper perspective, “developed countries have already lost much of their diversity, and the world as a whole is increasingly dependent on the plant, animal, and microbial life of developing countries, where loss and erosion are dramatic as well” (RAFI, 1994). This is the agenda which explicates revealingly the purpose of the conservation projects currently underway in Africa, Asia and the Americas.

More than two-thirds of the world’s plant species comes from the South. The value of germplasm taken from the South to be utilised by pharmaceutical TNCs in the early 1990s is estimated at $32,000 million (US) per year (RAFI, 1994). The South received a fraction of this mammoth sum for its knowledge and resources. The fungal and bacterial organisms found in the earth have been historically utilised by Indigenous Peoples, healers, voodoo priests, obeah women and men for their anti-tumour and antibiotic properties. Scientists have drawn on their observations to utilise these ways of knowing to contribute to the making of testosterone, anti-fungal agents, antibiotics, treatments for acne, gastrointestinal diseases and manic-depression and treatments for the central nervous system and appetite disorders. Recognition of this debt extending, with respect to the Americas, to the period of invasion, colonisation and enslavement has not been forthcoming.
On account of biotechnology, the differentiation between food and medicine, from a Western perspective, is disappearing as the nutraceutical sector expands (where food is being transformed to produce drugs artificially). Secondly, the screening of plants has been speeded up because of developments in micro-electronics and the growth in genomic software to complement the conservation and survival missions of the new crusades. "Where it used to take months to identify a useful substance, companies using the new technology and receiving advice from indigenous healers can now work much more quickly" (RAFI, 1994). Bioprospectors who can now file patents electronically, (through foreign lawyers allowed to practise within countries like Trinidad-Tobago) to the US Patent and Trademark office (PTO) do not therefore have to concern themselves with the survival of their informants nor with the renewal and maintenance of biodiversity. In December 1994, the PTO announced, under pressure from the Biotechnology Industry Organization (BIO) that bioprospectors no longer have to include "human clinical-trial data as proof of utility, a defining characteristic of patentability" when applying for patents. Bowing to BIO's claim that the clinical data requirement was unreasonable, the recent change allows companies to "submit in vitro tests and animal studies to prove the usefulness of new treatments" (Bioscience, May 1995). The cup of knowledge of Indigenous Nations is being drained dry.

Indigenous Peoples continue to accumulate knowledge about how best to care for the land in the contemporary threatening era. They still safeguard most of nature's diversity. The world community must insist on the moving of indigenous knowledge from margin to centre if they truly are concerned about survival and preservation of the earth for others yet to come. Old destructive paradigms of knowing linked to capital accumulation must be rejected
wholesaledly and immediately, for time is running out. The scientific management of the West has carried us to the brink of destruction. Alternately, “indigenous knowledge. . . is an organized, dynamic system of investigation and discovery that has yielded - and continues to yield - information that could be critical to the survival of the planet” (RAFI, 1994). All the knowledge that is needed exists. Yet, the conservation missionaries, as they appropriate fragments, seem to be simultaneously engaging in a project which will hasten the demise of the holders of other ways of knowing.

In the next chapter, I look at how the Human Genome Diversity Project funded by the US Congress and supported by a consortium of universities, governments and transnationals is furthering the goal of the US in “conserving” and maintaining in perpetuity the DNA of Indigenous Nations, Peoples whom we are informed are expected to become “extinct”. I end this chapter on the growth of ignorance with the enlightening words of Indigenous Nations across the universe. The assertions made by Peoples of the South should allow us to relegate to the rubbish heaps of history Western constructions of knowledge which set out to mystify.

Signed at Kari-Oca, Brazil on 30 May, 1992, several days before the convening of the “Earth Summit” at which a peripheralised role was accorded to Indigenous Peoples, this statement was issued by The World Conference Of Indigenous Peoples On Territory, Environment And Development.

The Indigenous Peoples of the Americas, Asia, Africa, Australia, Europe and the Pacific, united in one voice at Kari-Oca Village . . . celebrate the spiritual unity of the indigenous peoples with the land and ourselves. We continue building and formulating our united commitment to save our Mother the earth. We, the indigenous peoples, endorse the following declaration as our collective responsibility to carry our indigenous minds and voices into the future. . . the creator has placed us, the indigenous peoples upon our Mother the Earth. The footprints of our ancestors are permanently etched upon the
lands of our peoples. . . We continue to maintain our rights as peoples despite centuries of deprivation, assimilation and genocide. We maintain our inalienable rights to our lands and territories, to all our resources-above and below—and to our waters. We assert our ongoing responsibility to pass these onto the future generations. We cannot be removed from our lands. We the Indigenous Peoples, are connected by the circle of life to our land and environments. We the Indigenous Peoples, walk to the future in the footprints of our ancestors. . . (Muller, 1993: 90).

Indigenous Peoples remain steadfast in their role as protectors of the land despite the threats to which their lives have been subjected. Those who are truly interested in the survival of the earth would seek to be educated into indigenous ways of knowing. Unfortunately, the profit motive is the governing logic behind contemporary “conservation”. The mission of the conservationists is, for the most part, hostile to the survival of Indigenous Nations. How can these agents, driven as they are by greed and power, avail themselves of philosophies concerned with communal ownership?
Chapter 4

The Human Genome Initiative: Call It Genocide

4.1. The Thin Veneer of Academics

The first wave of colonization consisted of the forced misappropriation of indigenous lands and resources, most often through violence . . . Settlers claimed that theft of Indigenous lands served the “public good” and that new technology promised more effective land use . . . The second wave of colonization sets its sights on misappropriating what little remains after the first wave, the “intangibles” of Indigenous cultures—Indigenous knowledge of the environment, preventative and curative healing practices, and particularly traditional uses of Indigenous plants . . . the second wave is accommodated and encouraged through national and international legal instruments which allow states and private companies to exercise—through legal and financial norms and standards—external private and exclusive ownership of the tangible and intangible heritage of Indigenous communities. It’s not at all coincidental that the justification of this misappropriation is the same: “It’s for humanity, for the public good.” . . . No matter how one looks at it, the result is the same . . . (Mead, Aroha Te Pareake, Ahya Yala News, n.d.: 7).

In the gambit to reshape the future of “human evolution”, scientific discourse has constantly been redefining the area of molecular biology prodding it toward a particular direction arising on the basis of racism and power in the North. Scientific theory, which proposes itself as conventional knowledge, arises within particular discourses and practices, serving the needs for which it was designed. According to Evelyn Fox Keller (1995: 53), theories “. . . reflect both the subjectivity of human objectives and the objects of human action”. On the basis of “theory”, scientific history, when examined, reveals the intending of a particular world, governed by the subjectivities of a minority. These subjectivities remain embedded within a discourse presented as factual, truthful and irrevocable. Keller has demonstrated significant movements within scientific history which allow for the uncovering of
the motivating factors governing the direction charted by the science establishment. Suzuki and Knudtson have cautioned that modern genetics might seek to eliminate difference. Rosalyn Diprose (1995: 169) discusses the miraculous, mysterious nature of difference unrevealed in the limited subjectivities of genetics which proclaim to understand the "Truth of Being". In this chapter I look at the Human Genome Diversity Project (HGDP), deconstructing the project through a consideration of its role in the shaping of science to accommodate capital accumulation. I focus primarily on the incursions occurring into Indigenous Nations under the veneer of science to unmask the agenda of those executing a very particular directive under the veneer of science. In so doing, I look at the current weapon of intellectual property rights as it is being applied to appropriate the living cells of Indigenous Peoples.

In 1994, the Rural Advancement Foundation International (RAFI) reported the growth of what it termed the genomic industry - companies engaged in the identification and commercialisation of human genes. In what it considered a "goldrush", RAFI indicated that these companies are seeking to privatise biological information, reducing human life to a commodity. Using "bio-informatics", high-tech computer methods are used to collect, analyse, edit and store information on DNA sequences. Genomic companies, such as Incyte Pharmaceuticals in California, sell access to their private genome databases which house volumes of biological information to transnational pharmaceuticals such as Pfizer and Upjohn. The development of software with applications for the genomic industry is a rapid-growth area, opening up another goldmine for bioprospectors who view human life in the form of DNA as simply "the most complex computer program of all time" (RAFI Communique, May/June 1995:1). Is it any surprise, therefore, that at the 1996 global economic forum held in
Switzerland, Bill Gates of Microsoft billions and James Watson, Nobel Prize winner for "discovering" the double helix of DNA, told European leaders how the course of history should progress? This pair draws significant attention to the alliance between science and technology being trumpeted as the solution for the economic woes of the North and the South.

The Human Genome Organization (HUGO) is a global organisation engaged in coordinated genomic research. HUGO is the parent organisation of the Human Genome Diversity Project (HGDP). This Project states that its purpose is to "immortalise" human DNA collected from 722 Indigenous Nations around the world. In 1991, the US Congress approved 3 billion dollars toward the 15-year Initiative undertaken by HUGO to map and sequence all genes internationally. In order to further the mission of HUGO, there has been a surging foray into territories peopled by Indigenous Nations, where, samples of DNA have been extracted under questionable means from human beings and patented. Limiting discussions of the Initiative to scientific journals, the science establishment and the US Congress have conspired to remain out of the view of the public eye, even whilst those with vested interest promote the latest genetic breakthrough for the identification of this or that disease. This seeming contradiction is no accident.

According to Keller (1995), the Human Genome Diversity Project is a logical outgrowth of the past pointing our way to the future. Keller contends that the HGDP draws on the social and material aspects of the knowledge/power nexus promoting the ambitions which led to its development in the first place. In Keller's view, these ambitions seek to refashion life, to

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redirect evolution and to institutionalise “a new science of man”. Although this mandate has been forgotten, Keller advances that it has shaped what counts as knowledge masquerading under the guise of “intellectual economy and technological efficacy”. The theory shaping such a notion of knowledge is precisely the kind which pivots on pretending to illuminate the existence between controllable and identifiable elements (1995: 63). How this shaping has contributed to the purveyance of a particular view of biological science is of significance to the assessment of the HGDP.

Keller identifies three shifts which have contributed to an understanding of contemporary molecular biology. In these shifts, physicists provided what Keller terms “social authority” for the emergence of a new concept of biology. In brief, the shifts are as follows: firstly, relocating the essence of life in the gene; secondly, redefining life as “instructions”, a “code”, a “puzzle”, a “cryptogram”; and lastly, recasting the goals of science from representation to intervention in the process of making and remaking life (1995: 54,55). According to Keller, early advocates of these shifts - H. J. Muller and D. Bernal - both expressed the promise of control of evolution as being the central biological problematic.

H. J. Muller, acclaimed as being the forerunner of molecular biology, was awarded the Nobel Prize for his work on X-ray-induced mutagenesis developed in 1927. Keller reports that this classical geneticist expressed a clear vision of a biology dependent on physics, premised on the three shifts, as identified above. Keller tells that in “The Gene as the Basis of Life”, Muller posited that the gene is a “biological atom” which accounts for higher life forms,

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73 A permanent alteration in a gene or DNA molecule.
variation and growth. He advanced that, in order to “penetrate” these units of life, mutations should be studied.

Rewarded with the Nobel Prize, Muller was vested with scientific authority to pursue the study of mutations. In 1916, this geneticist had expressed that the “keystones . . . to power” lay in the ability to control mutation and transmutation. Were this control to be achieved, it would then be attainable, he thought, to “. . . render possible any achievement with inanimate things” (Keller, 1995:56). Forebodingly, on winning the Nobel Prize for his work on the inducement of mutagenesis through X-rays, Muller wrote that

. . . those working along classical genetic lines may be drawn to the opportunity, afforded by the use of X rays, of creating in their chosen organisms a series of artificial races for use in the study of genetic . . . phenomena . . . for the practical breeder, it is hoped that the method will ultimately prove useful. The time is not ripe to discuss here such possibilities with reference to the human species (Muller, 1927: 87 quoted in Keller, 1995: 57).

With the opportunities afforded by genomic software, and on account of the “international” efforts of HUGO and the HGDP, it could be that the time is now “ripe” for the study of artificiality within the “human species”. The artificiality of which Muller speaks, may lie in the current ability of science to induce changes to the genetic codes of entire Nations, having studied and analysed those Peoples’ DNA. Indigenous Peoples make up the 722 Peoples singled out by the HGDP. Biomedical science, therefore, seeks to become intimately involved in the surveillance or genetic screening of these specific Nations. Prominent elements in the medical establishment display a well-publicised leaning towards “gene therapy” - the insertion of foreign genes to fix “defects” in the human organism. The creation and correction
of defects could certainly contribute to the study of "genetic phenomena". The practical application of gene therapy, however, raises serious ethical concerns:

... the application of genetics is not limited to its potential for eugenics. Genetic theory informs a wide range of social and medical practices. It is the condition for the possibility of immunological theory which in turn informs the approach to diseases such as AIDS. Genetics also underscores screening for 'defective' individuals such as the criminal... or a foetus carrying a genetically transmitted disease. Reproductive technology, the development of biological weapons and the selective breeding of flora and fauna for agricultural production all owe their vigour, splendour and status to modern genetics (Diprose, 1995: 165-166).

In 1944, Erwin Schrodinger, a physicist recognised globally for his work in quantum physics, published *What is Life?*, echoing many of Muller’s ideas (Keller, 1995: 58). Schrodinger identified the gene as the basis of life in which locale resides all genetic information to be transmitted. He suggested that mutation should be studied calling the theory of mutation "the quantum theory of biology". Keller asserts that the influence of Schrodinger on the course of molecular biology has been "undeniable". Physicists such as Crick who turned to biology after the war, and biologists who "came to star in the molecular revolution" such as Watson have cited the influence of Schrodinger’s work. Watson, himself, has stated that from the moment he read Schrodinger’s book, he became "polarized toward finding out the secret of the gene" (Keller, 1995: 61). Keller argues that the introduction of this "mind-set" into the profession enabled the change in thinking that Muller had sought but had been unauthorised to effect. The search for the "secret of life" became, then, the legitimate problem to be solved in biology. On the basis of the work of Crick and Watson, rewarded with a Nobel Prize, the word was now out that life was simple and that the secret of that simplicity had now been revealed
This lent acceptability to the conceptual shift which took place in molecular biology in which the older biologists became objects of disdain (Keller, 1995). Keller informs that while the Nazi experiments in eugenics left physicists and biologists alike “reticent” to speak further about this new approach to biology, the coincidental upsurge in cancer provided a convenient opportunity for continued work along new frontiers. Having demonstrated that its mission is to genetically survey, database and share, for research purposes, the blood of Peoples from 722 Nations, the HGDP might be categorised as an extension of this “mind-set” in the next “logical” direction - the making and remaking of life.

4.2. Death and Disease: Chemical and Biological Weaponry?

In The Medical Mafia, Guylaine Lanctôt discusses the objectives of “world authorities in destroying people’s health, both in industrialised countries and in the Third World”- (1995: 126). She argues that world financiers control health. In her Chapter, “The Trilogy of Lies”, which looks at the decimating impact of vaccinations on the human immune system, she presents information with which the Quebec College of Physicians has taken issue, forcing this doctor to appear before the college’s disciplinary committee on charges of disseminating “wrong and misleading information”. Dr. Lanctôt is no longer practicing medicine. She is being harassed because she believes that the medical system exists to create sickness. Further, she expresses the view that vaccinations encourage “the moral and financial dependence of “Third World countries” on the industrialised world. “The Trilogy of Lies” echoes some of the sentiments on genocide alluded to by Davison Budhoo in Enough Is Enough. Writing of the role of the World Bank, Lanctôt reveals that Robert McNamara, former World Bank president, former United States Secretary of State, who ordered napalm bombing in VietNam, and
member of the Expanded Program on Immunization was reported to have said, in a translation from a French publication,

One must take draconian measures of demographic reduction against the will of the populations. Reducing the birth rate has proved to be impossible or insufficient. One must therefore increase the mortality rate. How? By natural means. Famine and sickness (Lanctôt, 1995: 127).

Referring to “targeted genocide”, Lanctôt warns of the ability of vaccinations to “kill people of a certain race, a certain group, a certain country. And to leave others untouched” (1995: 127). “The Trilogy of Lies” tells that 50%-70% of “certain groups” in Africa have disappeared. Many of those who have “disappeared” lived in the same area- Zaire, Uganda and South of the Sudan. Interestingly, the HGDP is scheduled to collect DNA from 165 Peoples in Africa. On May 9, 1996, The Globe and Mail reported that more than 100,000 people had died in the preceding three months in West Africa, in one of the “worst outbreaks of disease in memory”. Bacterial meningitis, reported to be the worst epidemic that sub-Sahara Africa has ever witnessed, has hit 14 African countries. Nigeria, Burkina Faso, Mali, Chad and Niger have been devastated by this “sudden” outbreak of disease. The African continent has been drawn into the vortex of disease on a frightening scale. Relatedly, Lanctôt presents

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74 See “AIDS Epidemic Ravaging Africa,” The Outreach Connection, 10 July, 1996. 1. 4. This article points out that the World Health Organization has reported that Africa, a continent comprising 2% of the global population, is burdened with 60 % of the world’s AIDS victims. So dramatic is the “epidemic” in Africa, that reference is now being made to an AIDS belt - countries in East and South Central Africa, mainly in the sub-Sahara region - supposedly, these countries have the “most severe concentration of the virus in the world”. The AIDS belt forms a “boomerang shape” around Zaire. The article indicates that AIDS is targeting equal numbers of women and men in Africa, contrary to other parts of the world. Disappointingly, it repeats the other transparent argument that the destruction of the “lush African jungles and vegetation” may have exposed humans to AIDS through contact with diseased animals. From the perspective of this thesis, there is a correlation between appropriation of the resources of the forests by the North and death and disease in the South. As the biodiversity of the Americas is being plundered by pharmaceutical TNCs, as countries position themselves for accession into NAFTA, the “epidemic” of AIDS is likely to reach the same staggering proportions in the Americas in Africa.
information linking experimentation through vaccination with the creation of disease and, ultimately, death.

Vaccination serves as a form of experimentation ... people are vaccinated against a pseudo-epidemic with products that one wants to study. The vaccine of hepatitis B seems to be the choice of authorities ... this vaccine is manufactured by a process of genetic manipulation ... it is much more dangerous than the traditional vaccine because it innoculates into the body cells that are foreign to its genetic code ... this vaccine is produced from virus cultivated on the ovaries of Chinese hamsters ... It is also reported to cause cancer of the liver (Lanctôt, 1995: 128).

Additionally, Ward Churchill informs that in 1990, the Indian Health Service of the US Public Health Service was innoculating Inuit children in Alaska with a Hepatitis-B vaccine which had been banned by the World Health Organisation on account of a “demonstrated correlation with the HIV-virus which is itself correlated to AIDS” (1994: 77, 78). In the May 9, 1996 article referred to above, it is reported that the “epidemic” in West Africa is being tackled with a “preventive vaccine ... now being administered on an emergency basis in the region”. Increasingly, information such as that which has been presented by Churchill and Lanctôt, is strengthening the proposition that AIDS is a genetic experiment of the military/scientific community. Whether the “experiment” has gone awry or is performing as intended is a contentious issue of tremendous significance (if one accepts the first premise). Many progressive people in the North, however, prefer to believe the “African monkey” tomfoolery, summarily dismissing a matter which ought to generate public discussion, (looking at, for example, the unhygienic ‘bleeding’ of donors from the South by blood plasma companies, the
making of vaccines from infected blood plasma and the sale of infected products globally) particularly as AIDS seems to increasingly target African, Indigenous and other communities of colour on a global scale.

The struggle for the land in which Indigenous Peoples are engaged suggest that communities have been singled out by the HGDP to be studied, not because they are “vanishing”, but because they are being disappeared as has been the case in El Salvador, Chile, Guatemala, Mexico, Brazil, Peru and Argentina, among others. While the HGDP offers the rationale that it is seeking to “immortalise” the cell lines of “isolates of human interest”, should they become “extinct”, the agenda of the consortium engaged in the Project is hardly benign. Two facts provide a good basis from which to derive this observation. Firstly, James Watson was recently invited to direct the new National Institutes of Health Office of Human

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5 See, for example, “Mexican deaths provide clue to AIDS spread.” The Globe and Mail, 14 September, 1996, A1, A2 where the role of blood plasma (plasmapheresis) centres in contributing to the spread of AIDS in Mexico and globally is discussed. Interestingly, the article points out that sites in the South where the world’s manufacturers of blood products located their centres for extracting plasma from poor people have turned out to be sites with catastrophic rates of AIDS. This is the case, for example, in Haiti, Honduras, and Zaire. The AIDS belt around Zaire, therefore, raises a number of ethical and investigative concerns such as have been pointed out by Dr. Patricia Volkow in Mexico. Dr. Volkow has confirmed through research in Mexico, that plasma, often extracted with equipment that went “consistently unsterilized”, was exported to other countries in vaccines by the USA, the “world leader in vaccine production”. Dr. Volkow of the National Cancer Institute in Mexico has theorised, on the basis of her findings, that “...plasma centres may have increased AIDS...” In the report entitled “HIV and the Blood Supply” put out in 1995 by the National Institute of Medicine in the USA, which examined how the US system became poisoned in the 1980’s, plasma imports were not even discussed. Plasma constitutes the raw material for the manufacture of vaccines. Currently, there are legal battles taking place in the USA over the the origin of AIDS in the national blood supply. The silence around the global role of the plasma centres continues, as more bizarre origination theories surrounding the spread of AIDS in the South continue to be disseminated by the “experts”.

6 See “Genetic Differences found in AIDS rate.” The Globe and Mail, 27 September, 1996, A1, A10. This article suggests that Africans have “higher infection rates than Caucasians” because of genetic differences in the African immune system. It is estimated that there will be 10 times more AIDS cases in sub-Saharan Africa by the year 1999 than in Europe and North America. In the USA, the rate of AIDS in the African-American population, only 12% of the general population, now equals that of whites.

7 See “AIDS among aboriginals approaching an epidemic” The Toronto Star, 26 August, 1996. A8 which states that “...Indian, Inuit and Metis are waging a losing battle against AIDS... the situation is approaching epidemic proportions.” On some reserves in British Columbia, rates of infection are 100 times the rate in the total Canadian population.
Genome Research in the USA (Keller, 1995: 64). Secondly, the core computer for storing the records of the HGDP - GenBank - is located in the national laboratories at Los Alamos, New Mexico (Haraway, 1995: 70). In other words, the depository for Indigenous Peoples’ DNA sequences is within a major US weapons laboratory - “the premier U.S. nuclear research center” (Churchill, 1992). With this orientation in mind, the veneer of academics under which the Human Genome Diversity Project attempts to hide is unmasked. This is the assessment from the perspective of some Indigenous Nations-

... the HGDP clearly does not reflect indigenous peoples’ own priorities for preserving their cultures. Struggles for land, resources and self-determination -- not self-serving pseudo-scientific enterprises -- are at the core of our survival strategies. Besides which, the reduction of cultural diversity to a genetic map is an affront to indigenous peoples’ own definition of our histories and cultures ... in a context in which genetic research is an established tool of racism and genocide, whether through ideological means such as bogus studies of intelligence and heredity, or through physical means such as the U.S. government’s documented efforts to develop racially targeted biological weapons, the public release of information gathered by the HGDP may itself directly contribute to the destruction of our peoples (Liddle, 1994: 4).

The HGDP has made it clear that the genetic samples it collects from Indigenous communities will be available to the public in a policy of open access. The data, furthermore, will be available in perpetuity. The consortium’s largesse is not extended to include samples drawn from Europeans. Indeed, the HGDP is a research project designed to take blood, tissue samples (cheek scrapings or saliva) and hair roots only from Indigenous Nations across the world. The blood samples are maintained in perpetuity through a technique of cell conservation which keeps cells alive and capable of multiplying. In this way, unlimited amounts of DNA are

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78 Dr. Ronald Worton, geneticist-in-chief at the Hospital for Sick Children in Toronto, is a vice-president of the Human Genome Organization.
generated even if the original donor is dead. The HGDP is attempting to deflect criticism away from the project through suggesting that the research will provide answers to questions about human evolution which might shed light on the origin of human beings. Indigenous Peoples believe that this is insulting to their beliefs regarding their origination which do not fit with the Bering Strait migration theory nor with Darwin’s theory of evolution. They see this pursuit as an insulting sham which will probably be used to challenge Indigenous claims to territorial lands. Another false claim forwarded by the HGDP is that it will develop applications to treat diseases like diabetes from which some Indigenous communities suffer. This is untrue. The HGDP is not mandated to develop medical applications from the data it collects. Its role is to collect, database and maintain genetic samples of data in perpetuity.

Evidence is being unearthed in countries of the Americas, as in Africa and Asia, that there is military oppression79 directed towards some Nations of Indigenous Peoples whose DNA is coveted. A transnational presence is encroaching on and engulfing the lands of Indigenous Nations in the Americas. As this occurs, violence is being directed towards the residents of these lands. The conveniently located military, often assisted through AID and World Bank funds for “development” projects, stands close by to contain the revolts by dispossessed Peoples.80 The following note illuminates the militaristic nature of the HGDP undertaken under the veneer of science-

79 See A People Damned, 1995, where, for example, the World Bank’s support of the Chixoy Hydroelectric Project as a ploy to support the Guatemalan military is analysed. The US policy objective to support the brutality directed against leftists and Indigenous People was achieved through the channelling of loans through the World Bank project. In the 1970’s, the US funded AID “development” projects in areas where conflicts existed, supporting military counterinsurgency in these locations. Through the training offered to the Guatemalan police in the 1960’s and 1970’s, the US participated directly in the political violence in that country with US pilots even napalming peasants. The poor of Guatemala struggle under World Bank debt burdens which have propped up military regimes while the oligarchy in this country pays almost no taxes.

80 See A People Damned for support of this position.
The Rural Advancement Foundation International (RAFI). . . has recently discovered that research units of the US Navy have collected blood samples in Peru and in Indonesia occupied West Papua (or Irian Jaya), while the Naval Medical Research Institute in Washington has obtained blood samples from the Philippines. . . The National Institutes of Health, a US government agency believed to control some of the world’s largest collections of indigenous peoples’ blood and tissue samples, carries out much of its research on these materials at Fort Detrick, Maryland. These facilities are managed by Science Applications International Corporation, a private contractor working for US and international militaries and intelligence agencies. Along with two units of the NIH, Fort Detrick is also home to Department of Defense projects related to biological and chemical warfare. . . Under the terms of the 1972 Biological Weapons Conventions, the US government officially halted development of biological weapons at Fort Detrick. However, some of the military agencies which now share the facilities have been set up to research vaccines and other counter-measures to biological warfare agents, research which necessarily involves creating and studying active agents of biological warfare. Furthermore, the Armed Forces Medical Intelligence Center, also working out of Fort Detrick, has been specifically directed to investigate the vulnerability of “foreign” populations and states to disease and infection (Benjamin, 1996: 1).

From the disturbing information provided by RAFI, the HGDP may be conceptualised as a potential weapon of genocide supported by capitalist patriarchy and scientific militarism. To pirate what an over-consuming North considers to be diminishing resources, four-fifths of the world with claim to rich natural resources and biodiversity is being sacrificed in order that

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81 The Walter Reed Army Institute of Research in Maryland is involved in a large-scale human trial using experimental vaccines in Bangkok, Thailand. See “Next Step in AIDS fight: Gamble on massive test” The Toronto Star, 13 July, 1996, A17. RAFI has documented that the Walter Reed Army Hospital has worked with blood specimens from Peruvian prostitutes. RAFI posits that this blood was collected by the US Navy in Iquitos. Like other collected “materials”, it was shared with the Army researchers, unproblematically. See RAFI Communique March/April 1996.

82 I say this with conviction taking into account, as one example, the epidemic of death and disease in Africa and in Indigenous Nations. As another example contributing to this sacrifice, there are “millions of undetonated, deadly mines mainly throughout Asia, Africa, Central America and the Middle East” (See “Landmines: A Universal Crisis” The Outreach Connection, 21 August, 1996, 1). The greatest concentration of landmines in the world is in Africa, Asia and Central America where mines remain undetonated in mountains, in forests, along rivers, on bridges, on roads, in villages and in houses. I say this, further, looking at children and street children in the South whose lives, minds and bodies are being ravaged by predators who peddle child pornography on the Internet. Interestingly, the role of the military, peacekeepers and the AID and development establishment in the transnationalisation of child pornography remains unacknowledged.
the minority one-fifth might have untrammelled access to the riches of the entire earth. This is the underlying construct of the HGDP. This is why it must be halted by any means necessary. Indigenous Nations have made their position clear on this count. If this project is not terminated and the DNA of communities returned immediately, all people of colour must expect that their turn to be databased will soon follow. After that, it will be poor whites; then, the aged, homosexuals, the differently abled and so on. Hitler tried something like this on the Jews, the Roma People, homosexuals and the differently abled. He was inspired thusly by treatment meted out to the Indigenous Peoples in the Americas by the settler newcomers. Seemingly, the HGDP takes US policy which continues to be brutal toward the Indigenous Nations of the Americas and extends it, based on Hitler's overtly eugenics experiment. As Churchill (1992) has warned, the US is indeed in a position to impose upon the entire South the relationship which it has maintained with Indigenous Nations “at home”. The neutral free science of which the HGDP speaks is, in reality, a science obsessed with intervening in life and leaving death in its wake. Alliances must begin to lobby for putting the end to this lie. The position of Indigenous Peoples must guide us in this urgent task. The following expose, when considered alongside the HGDP is considerable food for thought. NIH, seemingly the world’s largest collector and patentee of tissues from Indigenous Nations, conducts much of its research at Fort Detrick in Maryland. Sharing the facilities at Fort Detrick are the National Cancer Institute (NCI), the National Institute of Neurological Disorders and Stroke (NINDS) and a medical agency of the Defense Intelligence Agency (DIA), among others. A library of

Whether the killer is AIDS, landmines or adult child-sex predators, children are at risk of extinction in the South.
some of the world’s most virulent viruses and biohazardous materials is housed at Fort Detrick.

The DIA research of the Armed Forces Medical Intelligence Center (AFMIC),

“facilitate(s) the coordination of high-quality intelligence to both the policymaker and warfighter. . . . under the Department of Defense Intelligence Production Program.” AFMIC does this by focusing on foreign countries’ medical capabilities, epidemiology, life sciences, and technology. In AMFIC’s own words, it “assesses foreign basic and applied biomedical and biotechnological developments of military medical importance,” and “produces current intelligence focusing on foreign military and civilian medical capabilities, public health conditions and infrastructure. . . . and the impact of HIV/AIDS on military and general populations” (*RAFI Communiqué*, March/April 1996: 7).

4.3. Postscript: And By Extension, All Peoples Of The South

Since RAFI’s press release of 4 October, 1995 pointing out the attempt by the US government to patent the cell lines of a Hagahai man, there has been no statement issued by the US government to clarify this human rights violation. On 15 June, 1996, Debra Harry, a Northern Paiute researcher, Jeanette Armstrong, an Okanagan writer and educator, RAFI and Cultural Survival (Canada), held a press conference in Ottawa, Canada to go public with the news and implications of the HGDP. The press has not seen fit to expose this genocidal mission as a subject of serious urgency in the mainstream media.

The Samuel Lunenfeld Research Institute of Mt. Sinai in Toronto has initiated collection of blood from Anishnabai communities in Canada. The following statement made by Alan Bernstein, Director, was carried in *Bioworld Today* on 12 June 1996,

Soon we will have all the instructions on how to make a human being - what thinking means and what memory means. It will totally transform how we view ourselves and disease. We can’t anticipate all the ways it will impact us (Quoted in *RAFI Communiqué*, Sept. 1996: 5).
Universities like Harvard, Cornell, Johns Hopkins, Yale and Texas Technological University have collections of blood from Peoples from Colombia. The NIH, in addition to holding 1,773 samples from Indigenous Nations in Colombia, also holds blood collections from African-Colombians. RAFI has revealed that the the South has not been exempted from inclusion in the Vampire Project. The Center for Disease Control in Atlanta, Georgia, holds Colombian material from both Indigenous and African-Colombian communities. The National Cancer Institute (NCI) of the US holds tissue samples from China, the Francophone Caribbean, Mauritania, Guinea-Bissau, Ivory Coast, Central African Republic, Zaire, the Guianas, Solomon Islands and Papua New Guinea. CDC has used blood samples in HTLV research from Brazil, Jamaica, Ethiopia, Somalia, Peru, Panama, Indonesia, Japan and Mexico. Kyoto University in Japan is conducting research using blood samples from Gabon, Ghana, India and from the Ainu people (Japan). Kyushu University in Japan holds human tissue samples from Jamaica and Chile.

Indigenous Nations have expressed time and time again that if their lives do not become the focus of those concerned with justice, peace and equity, all lives of all Peoples will be lost. For the South, there is no place to hide and nowhere to run. The war which is being waged against the Indigenous Nations of the world and, indeed, against countries of the South is severe. To discount the implications of the HGDP is foolhardy and immoral. The following information is sobering -
. . . RAFI interviewed representatives of NIH, SAIC, AMRIID, and the U.S. Army Medical Research and Materiel Command (USAMRMC) to inquire about the sharing of NIH's extensive biomaterials collection not only with U.S. Army researchers, but with other scientists in general. Given the highly sensitive nature of human materials from indigenous people and plant samples collected for "medical research" by NIH, RAFI sought to ascertain what NIH controls were in place to prevent such materials being used by the military. We have discovered that there are none. . . officials. . . all confirm that any NIH-held materials may be transferred to the Army (or anyone else, including corporations), subject to the approval of the lead scientist of the lab in which they are held. Officials also confirm that materials are routinely transferred between the institutions. The SAIC representative, who is Fort Detrick's expert on material transfers said that there was no restriction on such transfers and no reason (or policy) why they would not take place (RAFI Communiqué, March/April 1996: 8).

In the next chapter, I look at how the spectre of food insecurity is sweeping across the South, making reference to economies in the Caribbean. I draw from these experiences to generalise on what is likely to be the pattern in other countries in the Americas.

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83 Science Applications International Corporation - a private firm based in San Diego which specialises in high-tech work for foreign intelligence agencies and the US Department of Defense.
84 The US Army's Medical Research Institute of Infectious Diseases based at Fort Detrick, Maryland. AMRIID researches counter-measures to biological warfare agents. One of the viruses currently being studied by AMRIID in their secure facilities is Ebola (RAFI Communiqué, March/April 1996).
Chapter 5

Biotechnology and the South- “Create Famine and Disease”

5.1. Introduction: Cane is Bitter

The process of economic globalisation has impacted on agriculture in the South in two waves. The ‘first’ wave of globalisation with its structural adjustment programmes (SAPs) wreaked havoc among indebted nations of the South by imposing severe cuts in the agricultural sector and by promoting cash crops for export at the expense of food crops. . . more ominous, have been the threats to food security imposed by a ‘second’ wave of globalisation, that is, the new regimes imposed on agriculture by the General Agreement on Tariffs and Trade (GATT) and the World Trade Organisation (WTO). Under these regimes, countries are obliged to abolish or reduce subsidies and tariff protection and open up their markets to imports of foreign food and grain. . . the result may be widespread starvation and famine (Third World Resurgence No.67, 1996: Editorial).

In the 1980s the prices of 15 leading agricultural commodities fell on the world market, commanding prices some 20%-40% lower than in the 1960s. This is one of the reasons contributing to the fact that farming is not a career which is attractive in the Caribbean region. Declining agricultural production, a reduction in agricultural employment, an aging farming population and an increasing food import bill all contribute to many of the problems faced in food production and the slim returns which accrue to those engaged in this area. For centuries, sugar was the major crop cultivated for export in the Caribbean. In 1982, world sugar prices dropped to $0.08/lb. from $0.45/lb. in 1980. In economies which have failed to diversify in agriculture, where TNC stranglehold of food production continues unabatedly, declining terms of trade and the development of artificial sweeteners in the North have resulted in the sugar industry facing "crisis and disarray" (Barry, Wood and Preusch, 1984: 31).
The Commonwealth Caribbean is “protected” by the sugar protocol of the Lomé Convention under which the European Economic Community (EEC) agrees to purchase most or all of the sugar produced in former colonial territories of the member states of the community. Access to this guaranteed market, however, comes with considerable drawbacks because the European nations determine the prices and the terms which govern the sale of sugar from Convention countries, demonstrating more concern for the availability of cheap sugar, than for equitable returns to producers from the South. Critics of the Lomé Convention point out that the producing countries of the South consistently receive the lowest possible prices. Prices set by the Lomé Convention often do not cover the costs of production, insurance or freight from the distant Caribbean ports to Europe. The real beneficiaries, say the critics, are the processing companies like Tate & Lyle and the European shipping companies which profit from guaranteed EEC business. The Lomé Convention, by operating outside the International Sugar Organization (ISO) and by pushing five million tons of unwanted sugar back onto the world market, has contributed to falling world sugar prices. An ISO official called the EEC’s refusal to join the ISO “the biggest single factor prejudicing the operation of the agreement” (Barry et al, 1984: 32-33).

Currently, US imports of sugar from CARICOM countries are limited by quotas which may be reduced at any time. If CARICOM countries join the North American Free Trade Agreement as is likely to happen, according to the Provisions of the Lomé Convention, CARICOM countries would be forced to open their markets to other NAFTA members, offering them the same access as that accorded to the Europeans. This can lead to more of the difficulties associated with guaranteed markets. One of the consequences of participating in the
CBI has been an increase in the importation of food in the Caribbean. Free trade within NAFTA will not change the pattern of food importation presently underway and, in fact, is expected to make matters worse. All these events taken together show that sugar, the crop associated with conquest, decimation, enslavement and indentureship, is still as bitter as gall for the Caribbean.

5.2. SAPs, NAFTA, GATT(WTO) and Land

On June 27, 1990, US president, George Bush, announced the Enterprise for the Americas Initiative (EAI). Drawing on a fund of US $300 million (equivalent to some 2.5 percent of the Caribbean’s debt to the United States), and relying on future grants from Japan and Europe to top up the US contribution of $100 million, recipients of loans would firstly be required to have in place a working structural adjustment agreement with the IMF and World Bank (McAfee, 1991: 45). An accession clause in the NAFTA makes it possible for groups of countries or countries to sign on in the future as members in this trade bloc. At present, agreements in South and Central America have already laid the framework for future economic consolidation of the Americas, North and South. As a first step towards joining NAFTA, countries in the Caribbean have already signed Framework Agreements on Trade and Investment with the United States. These nonbinding agreements allow for the initiation of preliminary steps in the elimination of impediments to trade and investment. In the entire region comprising the Caribbean and Latin America, only Cuba has not signed a “framework agreement.”

Since NAFTA makes permanent the conditions imposed by the IMF and the World Bank on debtor nations, the scope for government intervention in economic reorganisation in
the Caribbean and Central and South America becomes almost non-existent, severely limiting or eliminating the ability of democratically elected officials to contribute to policy changes affecting the lives of millions of people. When Canada and the US agreed in August 1992 on the establishment of NAFTA, in a sense, the apprehension exhibited in the Caribbean and haste with which nations rushed to join the trading bloc might be understood as the actions of dependent countries in the post Cold War era displaying fear that investment might flow away from the Caribbean to Mexico.

The Caribbean and Latin America are both likely to be recipients of far more than simply investment as has been proven by the experience in Chiapas, Mexico where, on 1 January 1994, the day Mexico became the third “amigo”, the Indigenous Peoples of this southern-most state launched an attack against the government of President Carlos Salinas de Gortari. Hundreds of Mexican peasants have historically been gunned down by police or hired killers on behalf of rich land owners. The Native Peoples and other indigenous refugees from Guatemala work like enslaved people on farms in Mexico. NAFTA was perceived by the Salinas government as a vehicle through which the economically unproductive holdings of small farmers held in communal ownership might be “reformed” into bigger, modern technological operations. The concomitant human displacement that follows is another step in the journey of genocide. One wonders if this systematic attempt toward genocide conducted by the Salinas government is the harbinger of similar events to follow as other countries in the Americas South throng to join the NAFTA camp. Drawing on events in Mexico, it appears that NAFTA has ushered in an era which has been predicted time and again to be, in reality, the recolonisation of Indigenous Nations and other peoples from the South. While the resources of Mexico seem freely
available to transnationals from the USA, the latter is, in collaboration with Canada, designing an even more stringent immigration policy to screen immigrant applications. Reflecting the rise in anti-immigrant sentiment in the North, even while bleeding the Mexican economy dry, representatives of the US state experience no contradiction in enacting exclusionary policies against the very same people referred to under NAFTA as “amigos”. This action should sound an alarm for countries such as Chile and Trinidad-Tobago which are literally begging to become the next NAFTA “amigos”.

The appropriation of the land of small farmers and tracts held by Indigenous Peoples in communal ownership is on the rise in the Americas (Muller, 1993). All countries of the Caribbean and Latin America are in debt. The land of the indigenous living in the Amazon Basin, the Andean mountains, Belize, and elsewhere, and hence their lives, will be subjected to the same forces of development as the NAFTA signatures increase. All in the interest of big business, these forces are making way for the new land barons and agri-giants and the unfolding of a new chapter in the South in political and territorial control. The aggressive transnationalisation of agriculture in Mexico should serve as a warning to other countries in the Americas. More critically, the Indigenous Peoples throughout the region are threatened by the same forces thrust upon the Peoples of Chiapas by the USA “amigo”.

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85 Estimates suggest that there are 40.5 million indigenous people in the Americas - 37 million in Latin America, 2 million in the US and 1.5 million in Canada. Women are suggested to constitute 59% of this number.
5.3. Planting the Seeds of Biopiracy: Colonialism and Conquest

In the early seventies, companies involved in the production of chemicals or pharmaceuticals and/or pesticides launched into the acquisition of seeds. Historically, early chemical companies originated in the nineteenth century producing dyes for the market. As “part of the colonial pursuit of the indigo plant”, these companies experimented with other plants, coal and mulberries in the search for better dyes. In the next step in its progression the dyestuff industries began to “harvest” gums and waxes from plants in Africa and in Asia. This early work and further experiments, relying extensively on Indigenous knowledge and observation, led to the development of the modern pharmaceutical industry, with plants constituting an essential component of its lifesblood. From plants, drug companies branched out into the production of pesticides.

Around the same period in the seventies, the petroleum companies of Shell and Mobil Oil, seeking information on investment opportunities in high-technology, approached the Massachusetts Institute of Technology (MIT). On advice offered by MIT, these companies launched into the “genetics supply” industry buying small companies engaged in the production of livestock and plants. Petroleum companies also began to focus attention on medicinal plants considering their commercial possibilities and the genetic contribution that might be yielded through experimentation with plants.

In 1970, as the “global patent-market for plant varieties appeared in the offing,” petrochemical companies, sizing up the profitability looming ahead, moved swiftly to acquire seed houses. Kema Nobel, a leading European supplier of fruit and vegetable fumigants
purchased the major garden seed companies in Europe. Reichold Chemicals, engaged in the production of lawn and garden pesticides, made purchases of garden and lawn seed companies in the USA. Ciba-Geigy, the most prominent maize pesticides firm in the USA, acquired Funks/Seeds ranking as the highest maize breeder in the US. Stauffer Chemicals, an important producer of maize pesticides bought three maize companies. Celanese which manufactures seed coatings undertook to buy Harris Seeds and some other seed houses. A spate of other mergers took place in 1970. Purex bought Ferry-Morse; ITT bought O.M. Scott; General Foods bought W. Atlee Burpee. Limagrain bought Ferry-Morse at a later date; ITT bought Burpee at a later date. Sandoz of Switzerland had already started to consider buying into seeds. BASF was breeding in Germany. As such, at the close of the 1970’s, seed houses - formerly small and family-based - had been taken over by large transnational pharmaceutical and chemical companies. In a short space of time, the pharmaceutical and petrochemical industries, aided by events of the “Green Revolution”, had become “the world’s new seedsmen” producing fertilizers and pesticides for agro-industry. As is noted in “The Global Seedsmen”, the areas of pesticides, pharmaceuticals and seeds all have in common a cycle of production which draws heavily and continuously on research related to chemicals and genetics.

For petrochemical companies, the adding of seeds to their considerable sales represented an added advantage. For one, governments which subsidised seeds might also consider subsidising pesticides for those seeds. The fertilizers which these companies were producing would also, through advertising, be seen as necessary for the successful cultivation of these seeds. Expensive marketing and distribution challenges facing these companies could be surmounted through the energetic efforts by FAO, UNDP, the World Bank and other bilateral
aid programs which, carried along by the momentum of the Green "Revolution", began to distribute high yield varieties (HYV) of seeds to governments in the South. These governments generally undertook the cost of distribution of the seeds, heavily subsidizing costs. They forced farmers into purchasing HYV seeds (on World Bank and AID advice conditionalities) tying the sale of these new varieties to access to credit, pesticides and other inputs. As is well known, during this period, many small farmers were thrown out of farming. Urban centres became the holding tanks for more and more of the unemployed farming community. The land became unfit for contributing to the healthy maintenance of life. Meanwhile, transnationals prospered and expanded.

5.4. TNC Global reach and Loss of Genetic Diversity

In the article, "The Global Seedsmen", it is pointed out that up to 1971, monopoly patents for new plant varieties had been limited to fruits and ornamentals (as had taken place in the USA) or agricultural crops in a number of countries of western Europe. As the dollar potentiality of plant breeding research became obvious in the seventies, with France, Sweden, South Africa and New Zealand joining the company of those countries holding exclusive monopoly rights, transnationals began to shrewdly assess the power which plant patents and hence royalties would place within their orbit. They recognized the global reach which patent monopoly rights would afford them in a vast market place where they would manipulate the terms and conditions of sale. The article states that from the perspective of the companies engaged in the production of chemicals, taking into account the vast implications of patent security, it was "natural" for these corporate entities to aspire to become the "seedsmen" of the world.
The corporate practices of companies engaged in plant breeding ensure the maximization of profits in ways inaccessible to the vast majority of small farmers. Firms often coat seeds with chemicals such as fungicides forcing farmers to purchase packages thereby ensuring the use of company chemicals. They dove-tail seeds and pesticide research producing biocides/seeds which “need” each other. They promote particular varieties and specific chemicals to be used with these varieties in advertising packages, reducing their marketing costs, while increasing sales of their products. Dove-tailing, itself a dangerous practice in the North, has proven to be disastrous to peasant economies in the South-

Oxfam’s David Bull has estimated that 375,000 Third World peasants become ill every year from pesticides - and that 10,000 die. When pesticides and seeds start living together farmers and consumers - South and North - had better be concerned. Seed coatings are becoming commonplace in the North and not so rare in the South. Sometimes “old” seed with dubious germination capabilities winds up, all dressed, in Asia or Africa where the chances are even as to whether the little pellets will go into the soil or directly into someone’s stomach (Race & Class 1983: 1-2: 131).

Dressed, coated seeds and seed pelleting are now standard practices in the case of many crops. Seed pelleting makes seeds a uniform size for drilling: Plant growth regulators and fungicides are increasingly being added to the clay base of the pellet in order to give seeds a “head start”. Coated or dressed seeds supposedly “safen” plants against intruders. As an example, Ciba-Geigy wraps grain sorghum in three chemicals. Two of these protect the seed from grass encroachment. The third chemical protects against Dual, the leading herbicide of this very company, since Dual is toxic to grain sorghum. As another example, bordering on the ridiculous, in 1983, it was possible to plant dressed maize seed in the night utilizing the
fluorescent glow emitted from these seeds in order to see. The glow came from a gene taken from the glow-worm. The seedsmen do not tell us what the side effects of the fluorescent wrap and herbicides might be. Yet, the consequences are evident in an increasingly diseased population in the North.

The use of pesticides, herbicides and the adoption of the destructive practices of transnational companies continue to constitute an important component of the “deals” in export agriculture and horticulture thrust on Third World countries by the World Bank. As Vallianatos (1992: 97) observes, however, pesticides confer power on transnationals enabling them to expand their territory under conquest. This land over which they hold sway, furthermore, allows them to, in the context of the South, recolonise populations, extracting surplus whilst decimating and destroying humans and other living beings. While populations in the north may have access to health care (although for the poor the situation in the US is problematic), in the south the poor cannot purchase medicines to alleviate the suffering borne out of the use of pesticides. Workers who come directly in contact with sprays in the South, and their living and unborn children, however, come from particular class and race backgrounds. They are often the poor, the dispossessed, the African, the mestizo86 and the Indigenous Peoples of the region. The impact of pesticides on poor, undernourished people is known to members of corporate bodies -

86 Jack Forbes (1992) tells that the European invasion has created in the Americas a class of persons of either mixed race or “detrabalyzed” native background. These individuals, according to Forbes, whether called mestizo, half-breed or caboclo, are of semi-Europeanized culture. Forbes cautions that the terms, indio and mestizo are responses to an oppressive social order. In general, however, he offers that the distinction between the indigenous and the mestizo is harshened by the stubborn colonial notion of the mestizo that the Indian is inferior. See Columbus and Other Cannibals, 87-102 for further details.
Scientists in the US, for instance, have known since the 1960s that these toxic agricultural sprays have a special affinity to race and class - they are anthropocides in general but they cause more adverse deleterious effects on people of colour and people who do not have a balanced diet, that is, hungry and poor human beings. American migrant farm workers - who are primarily black, Chicano, Latin American and Asian - lose at least twenty years of their lives in their hazardous and seasonal labour (Vallianatos, 1992: 97).

Pesticides kill both directly and indirectly but the power of the corporate giants is such that research in genetic breeding and pesticide development continues unabatedly. Those who challenge their power are hounded out of the academy or ignored. In a 1977 report penned by Agriculture Canada, it was stated that our demand for higher quality foods increases with the use of pesticides since the body must strive to detoxify the alien substances. Shockingly, facts known some twenty years ago, have not found wider circulation, even as the incidence of cancer increases in Canadian society, where it has long been acknowledged that “the level of microtoxins” is increasing steadily in “higher yield” seeds. Plant breeders show little interest in the nutritional components of their seeds. If nutrition is negligible, therefore, and damage to health is a distinct possibility, why are millions of consumers in the North and South continuing to be forced by their governments to feed at the troughs of the transnationals? Are our tax dollars - through the generous concessions and write-offs afforded to big business - supporting our own self-destruction?

Many of the new crops bred by geneticists are less nutritional than the old crops. New crops sold by the merchants of grain contribute to genetic erosion in two ways. According to “The Law of the Seed”, “the new cultivar may supplant superior (better adapted) landraces causing them to disappear from cultivation entirely”. Secondly, new crops encroach upon other
crops causing erosion in the latter. Farmers, encouraged to plant new “improved” seeds, are faced with crops which are ill-suited for survival in the South. After they lose their old seeds in this arrangement, they find themselves being forced to return time and again to the seed merchants. Further, countries in the South are being encouraged to grow temperate zone vegetables over their more nutritious indigenous crops.

Commerciogenic erosion\textsuperscript{87} in the South is directly related to the takeover of local seed companies by transnationals. The procedure enabling this situation to occur is simple. Corporate entities acquire numbers of small companies. They eliminate a number of strains through producing only the most profitable strains of seed for distribution. Varieties of seeds which are “de-listed”, since they are no longer produced, become extinct. This corporate rationalisation has not been limited to species originating in the South. It occurs also in the North. Such it is that numerous varieties of seeds are now unavailable for growing. Genetic diversity has therefore been lost in a very short space of time having been supplanted by types favoured by the “global seedsmen” for commercial value. The article “The Global Seedsmen”, emphasises that getting rid of traditional cultivars which belong to no one individual but rather to entire communities, but which have often been “removed” from the South is one of the ways in which TNCs rationalise their operations while eliminating the “low-profit competition offered by non-hybrid varieties.

\textsuperscript{87}The eradication of landraces through agricultural activities which contribute to genetic erosion. Breeders from the North have been exporting hybrid seeds to the South over decades, particularly during the “Green Revolution”. These hybrids cause erosion in indigenous crops. Further, HYVs force farmers to return to the TNC each year, for hybrids do not breed “true”. As hybrids continue to be cultivated, more and more landraces are eroded, disappearing altogether.
Vandana Shiva (1988) observes that we have reached a major crisis in the way in which we produce food, impoverishing both the land and the people for whom food and the participation in food production should be a right. The so-called “miracle seeds” of the Green Revolution which won Borlaug a Nobel Prize have, in reality, sowed the seeds for transnational corporate control of the food cycle, removing control of the genetic resources of plants from peasants and women, giving it over to western male technocrats. Seeds which have been utilised by peasant communities all over the South are considered “primitive cultivars” by these technocrats who view their “dressed” varieties, fluorescent or cold-resistant, as “advanced” types. With hybridization, “miracle” seeds have to be purchased on a yearly basis. Unlike “primitive cultivars”, hybrids do not reproduce themselves. Hybrids cannot pass on their vigor to the next generation of seeds. These seeds therefore do not constitute the life of plants. They are primarily a source of profit for transnationals.

Claims by the “merchants of grain” that hybrids are high yielding varieties have been disproven time and again. Shiva (1988) refers to a study conducted by Ingrid Palmer in fifteen nations showing that “‘miracle’ seeds are not high yielding in and of themselves; their distinguishing feature is that they are highly responsive to heavy inputs of irrigation and chemical fertilizers. It is therefore more appropriate to call them ‘high responsive varieties’ (HRVs) because without the ideal inputs, their yield is extremely low”. I have already referred to the practice of producing seeds, pesticides and fertilizers which “need” each other. Premised as they are on this method of production, hybrids are obviously designed to be a continuous source of revenue for megacorporations, not a means of providing nutritious sustenance for the hungry. With the inauguration of NAFTA on January 1, 1994, in the imminent future, more
TNCs will be engaged in export-oriented agricultural production in Mexico and in other countries of the South. More governments will be blithely welcoming the “merchants of grain” as if the lessons and disasters of the Green Revolution are not still with us, and as if repeat “Green” performances harnessing genetic biodiversity do not portend the reaping of bitter harvests. Bitter harvests for some; big bucks for others-

Any realistic discussion of food security must go beyond questions of how to produce more food for hungry people in the South using “gene revolution” technologies. . . the issue is one of control -- not production. The South, in particular, now faces intense pressure to abandon food self-sufficiency policies in favour of agricultural trade liberalization. With all the emphasis on trade, there is virtually no discussion of the transnational enterprises who are dominant players in every aspect of commercial food, agriculture and health. Before surrendering national sovereignty and food security to the mega-corporations and the World Trade Organization, it is important to put a face on the economic powerhouses that control this arena . . . (RAFI Communiqué Sept. 1996: 1).

5.5. Food Aid/ Food for Peace (Public Law 480)

When the US claims that it is giving “food aid” to starving masses in the “overpopulated South, the picture that comes to the mind of the average American or Canadian citizen is that of a humanitarian, wealthier country undertaking the grand gesture of actually giving away food to less fortunate areas (for this is the widely disseminated media image) peopled by hungry Caribbean, Latin American, African or Asian populations governed by corrupt, despotic, thieving leaders. Unfortunately, the motives directing “food aid” remain unknown to the vast majority in the North and, to the recipients in the South. The fact is that food is not simply given away under food aid. To trace the historical progression of food aid it is necessary to go
back to the 1940’s when grain production in the USA jumped to an increase of fifty percent while consumer consumption trailed behind, increasing by only thirty percent. This increase in agricultural production had resulted from the more aggressive use of pesticides, fertilizers and "improved seeds" by US farmers. Farmers did not care to dump grain on the World market fearing imminent losses in farm income. In 1952 at a national convention meeting, the American Farm Bureau proposed the creation of a "secondary foreign market" which would enable "food-deficient countries" to purchase food imports from the US in their own currencies instead of in US dollars (Lappe, 1981). The passing of US Public Law 480 (P. L. 480) enabled governments of the South to purchase surplus American food without precipitating any change in the price at which the same food items were offered to higher-income countries.

Effectively, therefore, the purchase of "food aid" allows the simultaneous existence of a two-tiered system of export, in which, in the contemporary period, governments of countries of the South take out long-term loans from the United States with which to procure surplus agricultural commodities. This "aid" therefore is purchased through borrowed monies from the givers of these "aid". Evidently, therefore, "food aid" is fueled by corporate interests and is not a humanitarian gesture as the US government is wont to have people believe. In order to pay off the loans with which the "food aid" is purchased, governments in the South generally sell the US surplus grain on the market to those who can afford to make purchases. Those who need the food the most - the poor - cannot buy. The question arises therefore - of what aid is this "aid"? Keeping in mind the US extension of foreign policy which has been an integral part of the "food aid" program, it is not surprising in an assessment of this "aid" to discover how foreign governments find themselves under pressure to accommodate the military and economic
interests of the US as a condition of purchasing “food aid”. Cargill is the world’s largest supplier of “food aid”.

When P.L. 480 was enacted in 1954 it came into existence owing to very particular circumstances. In 1951, on account of monsoon failure, India was faced with the threat of being unable to feed its citizens. That country approached the US where there was a surplus of grain, requesting wheat. The US took this opportunity to “request” that India lift its embargo on exports of monazite sands. These sands, for which exports had been embargoed since World War II, contained thorium, a component needed for nuclear weapons production. The “exchange” of food for weaponry, might and power stands as a powerful symbol enhancing our understanding of why the well-oiled programs of aid continue to roll well into the 1990s, some forty years since the passing of P.L. 480 in 1954, as the US continues to “feed” the poor of the world.

5.6. Harvesting the Biodiversity of the South

Most of the world’s remaining food genes are in the Third World which is where most food species come from—. . . Every year dozens of plant-collecting expeditions comb the fields and markets of the Third World searching for lost diversity. . . Third World genes contributed to about $20 million to the value of the American maize crop in the mid-1980s and some corporate breeders estimate this will rise to about $6,000 million in the coming decades. Individual genes valued at $50 million each have been inserted into California tomatoes and Oregon wheat. . . Yet the Third World countries that these genes came from have not received a cent for them. All have flowed from South to North free of change (Mooney, 1990: 8-9).

To see many of the cultural artifacts and historical documents of the South is an impossibility for people who do not live in European or North American centres. Items
removed from countries through plunder, conquest and pillage even as recently as the period of the US initiated war against Iraq, remain held like captives in museums in cities far removed from the South, despite the existence of UNESCO guidelines on repatriating cultural antiquities. The majority of museums in the West would experience economic hardship and the calling into question of organizational validity and relevance without their African, Indian, Chinese and aboriginal Peoples’ artifacts to curate. The similarities between museums and transnationals are interesting. Both derive sustained income and fame (or notoriety) from their “holdings” originating in the South. Given the present aggressive transnationalisation of the Americas, these museums will, no doubt, expand their considerable experience in being the keepers of other peoples’ property, in the near future. There, there may be housed, many more artifacts from Peoples being disappeared. Grains, vegetables and fruit which are becoming extinct, may also be displayed in museums some time soon. Speaking of the apple which originated in Northern Eurasia, Mooney has estimated that 6,121 of 7,098 varieties of the American apple are now extinct. Pears have been subjected to the same miserable fate as apples. While over a thousand varieties of pear existed in Belgium in 1874, three pear varieties have survived into the present day. In short, the economic orientation of the corporate environment, propelled by the efforts of an industry based on technology, has created uniformity leading to staggering, and as yet, statistically unrecorded and unrecordable losses in genetic diversity, globally. What has occurred with apples “polished with wax to inhibit aging and sprayed with pesticide 16 times a year” is also occurring with other crops bred primarily to resist the chemicals and pesticides of the transnationals since “it is cheaper and faster to adapt the plant to the chemicals than adapt the chemicals to the plant.” Tragically, the genetic diversity of crops from the
South, has already been decimated even while a constant pool of genes taken from this region is being stored in company vaults and government seed banks pending patenting. The same companies producing pesticides number among those storing seeds and, predictably, among those successfully lobbying at GATT for the inauguration of intellectual property rights in the newest document governing trade-

... Third World genes are stored in company vaults or government gene banks waiting to be incorporated into seeds patented and controlled by the multinational companies which monopolize the patents. ... more than 1,000 small family seed houses have either been bought out or come under the control of some of the world's largest chemical companies. The new seedspeople of the 1990s are Ciba-Geigy and Sandoz of Switzerland; Shell, ICI and Unilever of the UK; Rhone-Poulenc and Upjohn of the US (Mooney, 1990: 9).

5.7. Common Property and TRIPs: Aiding and Abetting Plunder

In the 1980s intellectual property issues were introduced by the USA into trade negotiating as a result of the efforts of a powerful lobby of US pharmaceutical, chemical, entertainment, publishing, computer and electronics corporations. These corporations urged the USA to include copyright and patent issues in the trade negotiations being conducted under the General Agreement on Tariffs and Trade (GATT) which began in Uruguay in 1986, terminating in 1994. With respect to agriculture, the problematic nature of companies laying claim to ownership of living matter is one thing. The issue of global corporate control exerted by a few companies on the food chain and the threats to food security stemming from this control is of national and international concern/priority. Some of these companies, to name a
few, - Monsanto, Bristol-Myers, Squibb, Pfizer, 88 Dupont, Proctor & Gamble - have been fighting a battle for corporate control of the food chain for a long time. Transnationals have wrested control out of the hands of people who traditionally grow food - farmers, peasants, women and aboriginal Peoples - transforming profit-driven corporate entities into “merchants of grain.”

In the 1970s, in the awareness of the potential profitability to be reaped from seeds and biotechnology, chemical and pharmaceutical companies began acquiring seed houses, transforming small family based units into huge corporate entities. Mooney (1983) reports in “The Global Seedsmen” that by the end of the 1970s, FAO had already identified 1,782 private and public companies engaged in the trading of seeds and the breeding of plants. In the seventies, it became apparent that the South, where, ironically, most of the seeds originated, would contribute a continuous source of profit to the coffers of the new seed merchants siphoned away under the guise of aid programs directed by the UNDP, FAO and the World Bank. Events of the day, namely the Green Revolution, “canonized with the Nobel Peace Prize” served as an easy sell convincing governments in the South of the merits of high yield varieties.

5.7.1. Making Connections: The FAO and transnationals

At present, the seed varieties of the South are held firmly in the hands and vaults of transnationals in the North. It is surprising how events enabling the accomplishment of this task still manage to evade the full scrutiny and ire of the world community which is suffering as

a whole, as a consequence of the introduction of pesticides and chemicals into the food chain. In the 1960s, some eighty transnationals engaged in agro-industry and terming themselves the Industry Cooperative Programme (ICP) came together in an attempt to influence the direction of agricultural development at FAO. In the seventies, the ICP consortia was expelled from FAO's policy tables by Edouard Saouma, the organization's Director-General, and the government of Sweden. Beating a hasty exit from Rome, the ICP surfaced in New York at UN Plaza under the nomenclature of the Industry Council for Development (ICD). Kurt Waldheim, then secretary-general of the United Nations, is reputed to have invited the ICD to New York, instructing UNDP Administrator, Bradford Morse, to assign space for the group within the UNDP. ICD lost little time in setting up the Commercial Seed Industry Development Programme (CSIDP) which proclaimed its intent as being to lend the advice and expertise of the seed trade in the North to governments, thereby enabling the South to develop regional and national seed capabilities. Beginning with an injection of US $825,000 from USAID, CSIDP's first project initiated, for example, with the Caribbean Food Corporation, sought to distribute seeds throughout the Caribbean region. ICD, therefore, seemed to have intended to create the means through which to distribute seeds regionally (that is, through CSIDP) while simultaneously retaining the ability to act as if it were the recipient of these seeds from companies such as Shell or Ciba-Geigy (themselves members of ICD). As such, USAID money simply created a channel through which seeds of the member companies of ICD might be regionally directed through an organization comprised of the very companies engaged in the production of the seeds to be eventually distributed.
Many small farmers have been forced out of agricultural production through the practices of governments and the aid bureaucracy which link credit to the purchase of “certified” seed. These hybrid seeds require farmers to return season after season to make new purchases conferring a guaranteed and increasing share of the markets to the transnational seed sellers. Further, the stocks originating from the seed suppliers in the North contribute to considerable commerciogenetic erosion in the South, making way, as it were, for the sale of even more hybrid seeds to replace the lost irreplaceable cultivars. Commerciogenetic erosion is likely to continue and even to accelerate as Latin American, Caribbean and Canadian governments become bound by international trade agreements such as NAFTA, GATT and the EAI.

5.7.2. Plant Breeders’ Rights (PBR): Resolution 6/81

In the spring of 1981 at the 21st Conference Session of FAO, representatives of governments of the South spoke of “… the erosion of their botanical treasures under pressure from imported new varieties …” and “… efforts to collect endangered material … leading to a flow of genetic resources to the North …” 89 The “genetics supply” industry domiciled in the North, where Plant Breeders’ Rights (PBR) legislation was slowly being introduced, countered with talk of the necessity for “full and free exchange of germplasm” urging the world to view plant genes as the “common heritage” of all people. This chord reverberated of similar sophistry invoked for holding onto cultural artifacts. Interestingly, no government of the South ever refers to resources from the North as “common property” (CP), far less items taken by

force, plunder, looting or war. These same proponents of CP were anxiously waiting for legislation to "legalise" what they had been doing all along to germplasm acquired in devious and illegal ways which would then make them the owners of the CP of which they spoke. This raises a puzzling question. If CP belongs to all people, how then, when removed from the South, does it become the property of TNCs in the North, at that point, becoming patentable? Facing a fair amount of hostility at the FAO Conference, the Latin Americans, the Africans and the Asians, with leadership from the Mexicans, proposed the tabling of Resolution 6/81 leading to the creation of an International Gene Bank. The contingent from the South envisioned this as a first step toward achieving greater control over plant germplasm. This move could take control away from the International Board for Plant Genetic Research (IBPGR) — an "amorphous semi UN" organization to which agricultural ministries of the South had been "donating" plant germplasm.

The Africans and the Asians urged the Mexicans to include in the Resolution the formation of a "legally-binding International Convention to govern the exchange of plant genetic resources". This move sought to eliminate the disappearing "donated" plant material flowing to organizations in the North such as the IBPGR. "Only the Seeds in the Sea" (1983) notes that Board members and staff of IBPGR were also FAO staff. The creation of a UN International Gene Bank was favoured by the South over the Gene Bank of the IBPGR whose allegiances did not seem to be toward "donating" countries. In a leaked letter some four years after it was written on 19 January, 1977, representatives from the South attending the FAO

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90 Faced with resistance from nationals and governments of the South who were aware of the extraction of profits stemming from their plants, the IBPGR had written in a 5-year review that there was "need to establish some form of legal arrangement regarding access to stored germplasm" (See Mooney (1983) "Only the Seeds in the Sea". p.24.
Conference learned as late as 1981 of the position of the US government on “donated” materials through a letter penned by T.W. Edminster - then head of the Agricultural Research Service of the United States Department of Agriculture (USDA). This correspondence was generated in response to an earlier letter from the IBPGR requesting the United States to accept formal “base storage” responsibility for certain “donated” world crops. Edminster’s letter put in writing what had been occurring in the USA for numerous years.91 In his letter, Edminster expressed the US government’s position that “any material the US received on the Board’s behalf ‘would become the property of the US government’.” Drawing from the contents of the leaked letter, Mooney points to the South’s naïveté in placing their trust in the IBPGR. Over the years, the IBPGR had been encouraging countries of the South to transfer germplasm to the US, without informing these duped “donors” of the US position on ownership of “common property”. This practice might be deemed to constitute fraud and premeditated theft condoned by the US government, warranting the legal challenging of the US government by alliances from the South. Mooney tells that, off the record, the US insisted that they distributed ten times as much material from the gene banks as they received. Along with the Canadians and the Western Europeans, they often claimed that the culprits in germplasm embargoes were the Soviet gene banks.92 Serious questions remain unanswered, however: Why had the IBPGR while acting in the US government’s interests, failed to inform the South


92 Interestingly, the leading contributors to the Ottawa Gene Bank held by the Canadian government in its first 5 years of operation (1972-1977) were the Soviet Union, followed by China and the centrally planned eastern European states. See “Only the Seeds”, p.33.
governments of the US position? Why did the South have to become party to the information on US “ownership” of germplasm through a leaked document, four years after its writing? How can the plunder of the plant genetic resources of the South remain unaddressed?

Resolution 6/81 survived the 21st Conference with a commitment being made to revisit the issue in 1983 at which time the work of FAO would be reviewed and the “elements” of a Convention document would be drafted considering the feasibility of a Gene Bank. Predictably, the beneficiaries of the genetic resources of the South - the UK, the US and most Western countries, would oppose the proposal document at the 1983 FAO conference, claiming that costs to build and maintain a Gene Bank would be exorbitant. The team assigned by FAO to draft the document was to be directed by a former IBPGR Executive Secretary, Robert Pischell and a consultant and contractee to IBPGR, Dr. K.S. Dodds. A few days after the closure of the 21st FAO Conference and the passed Resolution 6/81, the governments of Britain and the USA expressed their refusal to become signatories to any International Convention. Further, on the basis of “exaggerated and distorted data” supplied by IBPGR, which undertook intense lobbying to show the impracticability and financial constraints associated with the creation of an International Gene Bank, the FAO (whose staff were also IBPGR Board members) urged member states to abandon the proposal. In the North, lobbying of governments, action on the part of transnationals, and pressure by plant breeders’ associations to participate in the March 1983 FAO conference, where the second round of the debate on the Resolution would take place, continued, unabatedly. For this particular meeting, the working paper was drafted by the legal department and other consultants at FAO.
These tactical moves were the precursor to other struggles between the powerful North and the resource-rich South. At the 1983 Conference,

Resolution 6/81 had been relegated to the last half-day of the eight-day meeting just in advance of the closing plenary. The Committee Chairperson, a Canadian, quickly agreed to proposals that the topic be moved into the first week of debate and that more time be set aside if necessary. . . .

the opening round examining the working paper ran a full day and a half and then went on to occupy most of the closing plenary debate as well . . . By the end of the Easter weekend . . . more than 40 countries had joined in the often acrimonious debate. The North/South battle had been bluntly drawn across FAO. Representatives were completely unable to agree on the final wording of the Committee report and, under threat of the imminent departure of the interpreters late the final evening, finally agreed to allow the draft committee report to pass without detailed debate. Country after country rose to state their opposition to the final document (Mooney, 1983: 35).

The author of “Only the Seeds in the Sea” notes that at the 1983 meeting, the real contentious issues, namely the politics and economics of germplasm control, and the stranglehold of the North, were freely identified by the South who brushed aside “smoke screen” issues mouthed by representatives of the North as to “whether or not germplasm exchange was a real problem.” The desperate attempts by plant breeders, governments and transnationals to protect “their” territories are graphically described in “Seeds.” The Australians led those opposing the stance taken by the South. The Scandinavians, despite, as pointed out by Southern delegates, having conventions and treaties on nuclear-free zones, and bans on nuclear testing, took the position that “the fuss and bother” of an International Convention was unwarranted. The Swedish delegate, coming from a country in which three of the world’s largest seed TNCs were domiciled and whose trade with the South was enormous, observed that “a formal convention would have little meaning in the real world.” The position
of the Americans, perhaps, provided some comic relief at this meeting, if perhaps, such relief were indeed possible. Coming from a country with its history of Watergate, Irangate and now "Genegate" - as the cover-up of the leaked letter had now been dubbed - the US delegate, ignorant of the furor arising on account of the exposure of the clandestine and proprietary nature of her government’s involvement, “challenged the need for a convention,” summing up the US position in obtuse words, graphically expressive of the barrenness of ethics which is the hallmark of US foreign policy directed towards countries of the South, in the words, “If it ain’t broke- don’t fix it.” “Seeds” tells that the Latin American and Asian delegates “haunted” the US representative over the course of the meeting repeating her words, interpellating their own versions of interpretation.

In the aftermath of these events, the North placed a great deal of emphasis on an FAO-conducted survey designed to identify existing constraints to germplasm exchange. In this survey, (to which IBPGR questionnaires had received 68 replies in response to letters sent to 410 institutes in 98 countries), FAO concluded that plant breeding programs were not being harmed by lack of access to germplasm from specific sources. Yet, as was well known by the South, embargoes on germplasm existed. Also, the tactical move undertaken by the IBPGR/FAO failed to reveal the depositories in gene bank holdings of transnationals which exercise control over the “donated common property” of the South.

Interestingly, the industrialised North expressed a wish to exclude the private sector from the 1993 Resolution. While they felt that “full and free exchange of plant genetic resources” should continue, they resisted the inclusion in the Resolution of advanced varieties and material utilised in ongoing breeding research. The former, they argued, was already well
preserved and available. The latter would deny breeders their just compensation if included in a Resolution. Taking the bull by the horns, the author of “Seeds” warns, however, that considerations such as these, “pale into significance compared to the real problem of giving this material a legal and scientific definition.” He comments that the exclusion of advanced varieties and breeding material from a Resolution would amount to acceptance on the part of the “world community” (actually, the industrialised, powerful pushers of this point of view- the North) of plant breeders’ rights legislation- PBR. Excluding from a Resolution the private sector, whose reluctance to reveal the extent of their holdings still requires researchers to engage in guess work, would, in the contemporary period, serve to protect the transnationals from the sharing of “donated” breeding material. This action would also permanently shield them from the proposed monitoring put forward by particular countries as a means of ensuring the “full and free” exchange argued for in the rhetoric of the plant breeders. Ridiculously, the British government had suggested that forcing private gene banks to reveal their holdings would be legalised industrial espionage. The South could perhaps have responded to this through the invocation of a dictum well-known to those in the North, and certain to be well-understood by the US representative, namely, different strokes for different folks.

A cursory assessment of transnational holdings reveals that the United Fruit Company (a subsidiary of United Brands) holds almost two-thirds of all the world’s collected banana and plaintain germplasm. In May 1983, Warren G. Breck, the president of United Fruit, stated that he would terminate this program. In 1980 an IBPGR survey revealed that the Firestone Tyre and Rubber Company held in its germplasm bank 700 rubber-cultivars and an unstated number of wild accessions. Some of the materials (held in Liberia) originated in Brazil, Sri Lanka and
Southeast Asia. On April 29, 1983, the company stated that its germplasm work had been suspended. It is past time, however, for control of germplasm to be returned to the original owners. As Mooney (1983) points out in “Only the Seeds in the Sea” there are many parallels between the Unesco 1970 Convention\(^93\) to repatriate the cultural artifacts of the South and the struggle at FAO over ownership of germplasm and PBRights.\(^94\) In the contemporary period, the signing of international trade agreements, such as NAFTA, EAI and GATT/WTO, which give transnationals powers to encroach far beyond the ambit of any government’s policies, are being revealed to rest on weapons of appropriation such as TRIPs. Posing a challenge to the legitimacy of these agreements begins in full comprehension of the sordid historical antecedents of common property, out of which the preoccupation with intellectual property has emerged.

### 5.8. EAI and TRIPs

The Initiative for the Americas plan indicates the strategy designed by the US to restructure economies of the South to meet the needs of capital. As a requirement for accession to NAFTA, and incorporation into a Pan-American trade zone, countries of the South must have a working Structural Adjustment Agreement in place, demonstrate commitment to privatisation of state enterprises, sign Bilateral Investment Treaties with the US, which respect intellectual property rights, and change their laws on foreign investment. The inclusion of IP issues in international trade treaties is one strategy designed to offset declining US competitiveness. This move also allows for “cross retaliation” by countries giving

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\(^94\) See p. 47 for parallels.
trade pacts "teeth". Through cross-retaliation, countries considered to have violated trade treaties will be subjected to trade actions directed against other sectors. Some of these might be the stopping of goods at the border if countries do not observe intellectual property rights. The freedom to buy, and sell, therefore becomes contingent on the observance of intellectual property rights. IP will become singularly oppressive in that it will contribute to the decimation of food security in the South. As this occurs, the US Department of Agriculture will achieve prominence as a provider of food to countries of the South. In effect, the consenting to IP goes hand in hand with the loss of food security.

5.9. Patenting Life: Chapter 17 of the North American Free Trade Agreement

Intellectual property rights constitute the subject matter of Chapter 17 of the NAFTA constitution subsuming issues of an ethical nature concerning the patenting of life forms. These issues have received no attention or publicity in the debate over NAFTA. This is not by accident. The conforming of patent and copyright laws to international standards which supposedly is the intent of Chapter 17 fails to reveal the protection and control accorded to corporate interests without the extension of similar benefits to "the broader society, to the original curators of biodiversity, to less developed countries wishing to adapt technology to their development needs or to artists, musicians, writers and other cultural workers" (Economic Justice Report, Vol. 111, No. 3, Oct. 1992: 4).

All in all, according patents to TNCs and enshrining this in international treaties ensures that the relationship imposed by the WB and the IMF on the South will remain long-standing and immutable. This is evident in the NAFTA text which cloaks and conceals provisions which allow corporate bodies to exert proprietary control over the ownership of living matter. Although the Mexican government attempted to prevent the inclusion of the patentability of life
forms in the NAFTA document, the constitution of the agreement allows private enterprises to own living matter which may comprise of “genetic material, biological material such as is found in nature and inventions relating to living matter that comprise the human body” (Economic Justice Report, Vol. 111, No. 3, Oct. 1992: 4). The patenting of life forms is a highly controversial matter with serious ethical considerations demanding extensive public debate in the bright light of day. The power and control it accords to the biotechnology industry is unprecedented and frightening. Countries in the South have adopted IP as a pre-condition for accession into NAFTA. Chances are, each country has rubber-stamped an oppressive document originating from the same supervisory institutions of economies of the South which produce the “Letter of Intent”. In 1992, Economic Justice Report predicted that the biotechnology industry would stop at nothing from seeking patents on “microorganisms, then plants, then animals and eventually even parts of the human body”. Pat Mooney, executive director of RAFI, draws attention to the dangers of a technology where it is not unnatural for researchers to instigate the breaking down of the barriers between the animal and plant kingdoms as “fish and insect genes are inserted into crop plants and human genes are inserted into mice, pigs, sheep and goats”.

It is in the South and in the South in the North that these forms of experimentations will occur, in countries which have adopted debt-for-nature swaps, and in the territories of Indigenous Nations. Genetic mutations, disease and famine are being reported, as though they were natural events, in all countries in the South. The Toronto Star reported on 22 June, 1996 on Page A3 that “about 22 million people in sub-Sahara Africa face food emergencies ranging from shortages to starvation”. Indigenous Nations, in general, and the continent of Africa seem
to constitute the Peoples who are being disappeared rapidly. The onslaught of "new" diseases and resource appropriation with which they are faced are powerful reminders of the words of Robert McNamara. Further, these events recall strategies of genocide linked to earlier conquest and appropriation in the Americas.

In the next chapter, I probe deeper into how the decimation of food security in the South has been orchestrated in the North. I focus on the role of biotechnology, the new paradigm of development, in accelerating food dependency in the South. How transnationals have positioned themselves to be in control of the production and distribution of food is, therefore, the subject of my next chapter.
Chapter 6

Biotechnology and New Forms of "Life"

6.1. Eliminating Food Security in the South

The production pattern of agriculture in the South has largely been determined by European colonialists and, at a later date, by Western funding institutions. In the Caribbean, as in other territories under colonial administration, crops for export were slated for consumption "back home". In the post-colonial era, in countries of the South which were formerly forced to purchase and adopt the components and practices of the Green Revolution as a condition of receiving loans and aid, the new biotechnologies have squarely set themselves in place to continue the historical process initiated when Europeans utilised the booty from their plunder and the medical knowledge appropriated from Indigenous Peoples in the Americas and enslaved Africans to bolster their industrialisation. Still unacknowledged, these indigenous knowledges contributed to the development of Western medicine and science. In this chapter I look at some of the implications of biotechnology for the Americas outlining how, even as the technology vociferously articulates its promise of providing food for the world’s hungry, it continues to aggressively pursue the creation of substitutes to replace all of the commodities produced by the monocrop economies of the South. The role of biotechnology in undermining food security is therefore central to this discussion. As a result of mandated cuts, the World Bank, in concert with the IMF, has prepared the way for transnational control and expansion in the South. Decentralised sectors of economies in the South have been "rescued" by injections of private sector capital in health care, agriculture and education, among other areas. These
viaducts of commerce are of immense importance to the furtherance of biotechnology. In this chapter I aim to provide an overview of the coming into fruition of a plan to extinguish the food producing capacity of the Americas, replacing it with bioengineered products generated by the agricultural and pharmaceutical TNCs. I look at how the creation of food dependency goes hand in hand with the creation of disease. Further, I attempt to illustrate that both undertakings work together to bring the peoples of the South to a desperate position tellingly equated with McNamara’s “famine and disease”.

Approximately ten crops contribute to half of the income derived from the export of agricultural commodities in the South. These are coffee, cocoa, tea, sugar, rubber, cotton, bananas, rice, tobacco and oil-palm. To give an indication of the importance of these crops to particular economies - in 1986, half of the income of Colombia was derived from coffee; in the same period, two-thirds of Ghana’s export income came from the sale of cocoa. In 1800, the Caribbean was responsible for 80% of the world’s sugar production - one quarter of this came from the British colonies in the region (Hobbelink, 1991). By 1880, beet production had taken off in Europe, France being unable to import cane sugar from its West Indian colonies on account of the Napoleonic wars. Eventually the USA, Canada, the USSR and the EU eventually became associated with beet sugar production and export. Since 1984, a pound of sugar has cost less than eight cents on the world market. The EU dumps a substantial amount of sugar produced by its highly subsidised beet farmers on the world market. In 1986, the EU exported more sugar than Africa and Asia taken together. The EU buys some 1.3 million tonnes of cane each year, according to the terms of the Sugar Protocol of the Lome Convention, from seventeen countries in Africa, the Caribbean and the Pacific (ACP). This cane
is sent to Tate and Lyle in Britain for refining. Tate and Lyle has the only cane refiner in Britain. This company has stated that it is finding it more and more unprofitable to refine the more expensive cane sugar. If Tate and Lyle stops refining, cane growers and their families will suffer even more as they stand to lose their livelihood slowly but surely. The USA has been challenging the preferential treatment accorded to the Caribbean under the terms of the Lomé Convention. Having limited cane sugar imports from the Caribbean to protect American farmers, and, having reduced the US quota system dramatically, the Americans are attempting to force Caribbean sugar producing economies into a position where their earnings from sugar exports will eventually disappear. Between 1981 to 1984, sugar imports from the Caribbean to the USA fell from $686 million to $246 million. At the same time, American farmers stepped up production and alternative sweeteners captured a large share of the market. The advent of these sweet-tasting substitutes heralds the demise of sugar and the displacement of numerous workers in the South. In 1996, sugar workers at Caroni Limited in Trinidad, for instance, worked only six months of the year. This situation is likely to deteriorate even further. Flying in the face of these developments, WB/IMF policies have been forcing economies in the South to increase sugar cane production, knowing full well that the livelihood of those relying on sugar is under threat. We do not have to look far to understand why the WB/IMF continues to force agricultural policies on the South which emphasise crops facing their demise on the world market.
6.2. **Biotechnology and Sugar: The Politics of Hunger**

The new biotechnologies will eliminate or displace the production of food, drink, scents and herbs in the South on a massive scale. They will lead to economic instability and the entrenchment of poverty and hunger. What better weapon with which to subdue nations in the well-orchestrated plan to bring all resource-rich territory in the Americas under control of American finance? The biotechnological industry is fuelled by the unquenchable taste for gold. It is fitting to open this chapter by looking at sugar because the five hundred year circle of history has brought the Americas back to the point where conquest, ecocide and genocide are being used to construct a financial base from which to institutionalise hegemony. In the same way that the buffalo was systematically eliminated to starve Indigenous Americans so as to capture their land base, the food producing capability of the South is being rapaciously snatched from women, peasants, farmers and Indigenous communities. With respect to cane, food processing companies are ransacking centres of biodiversity and plundering indigenous knowledge in their search for raw materials thousands of times sweeter than sugar-

This hunt leads the food-processors back to the Third World where plants produce incredibly sweet compounds. . . Thaumatococcus danielli, locally known as katemfe, is found in humid forest zones in Western and Central Africa and produces the protein thaumatin, some 2,500 times sweeter than sugar. In the 1970s Tate and Lyle set up plantations of katemfe in Ghana, Liberia and Malaysia. The frozen berries are sent to the UK where the company extracts and purifies the thaumatin protein which is then sold as ‘Talin’ for, according to one estimate, $US16,500 per kilo. . . several companies are now working to produce the sweetener in the laboratory, using genetic engineering and enzyme technology. Unilever was the first company that managed to isolate the gene coding for thaumatin and to insert it into the bacteria *E. coli* . . . Beatrice Food (USA) has been funding research at Ingene Inc. (a US biotechnology company), which resulted in the cloning of the gene out of katemfe and into yeast strains. Beatrice holds the patent . . . it is just a matter of time for the food-processors to commercially produce thaumatin from microbes in fermentation tanks, or directly in the edible plants
themselves, which would eliminate the need for the current Tate and Lyle plantations in the Third World (Hobbelink, 1991: 77).

As one of the older companies linked to colonial Britain, Tate and Lyle has been searching for at least a quarter of a century for a replacement for cane sugar which can be reproduced under laboratory conditions far afield from the sweat, toil and sacrifice of sugar cane labourers. This is the underlying motivation governing their reluctance to refine sugar cane sold to the EU. As in India, where indigo and cotton production were eliminated, this bastion of colonial expansionism is preparing to sell sweet substitutes back to sugar cane producers. The enslaved populations transported to the Caribbean to replace the decimated Indigenous Peoples did not profit from sugar, the “golden crop”. The monoculture of the plantations devastated the land of the Indigenous communities in the colonies of Britain and other powers. Cane producers in Brazil refer to sugar cane as the “hunger crop”. How much longer before all countries of the South become engulfed by this hunger - one of the political weapons, along with disease, being wielded by those wanting complete governance of the Americas?

Thaumatin is merely one of a number of sweeteners which poses a threat to cane sugar. In Paraguay, Japanese hunters “happened across” Stevia rebaudiana reportedly 300 times sweeter than sugar. In West Africa, scientists from the University of California “were led” to the “miraculous berry” which produces monellin, a protein 5,000 times sweeter than sugar. Delving into Mexican records on botanical plants, scientists from Illinois University in Chicago “came across” Lippia dulcis, a plant 1,000 times sweeter than sugar. Indigenous Mexicans
were using the plant long before Europeans arrived. The search continues in China and in Brazil. In all cases, companies are using genetic engineering and enzyme technology to reproduce their sweeteners in laboratories. Once patents have been secured on these “new” products there will be no further need to return to the sources for raw materials.

Coca-Cola and PepsiCo consume one-quarter of all sugar used in the USA. In 1985, 95% of non-diet soft-drink production used high fructose corn syrup (HFCS), a derivative from maize and the most important sugar substitute currently being used in North America. This move has been responsible for the US decrease in sugar import quotas from the Caribbean. The USA uses three quarters of the six million tonnes of HFCS produced worldwide. Although only initially available in a liquid state, corn syrup (CS) has been sold in a crystallised form since 1987 under the brand name, Crystar. Crystar will speed up the removal of cane sugar from the tables of the remaining lagging users of this product.

6.3. Cocoa: Does it grow in Switzerland?

Cocoa is the second most important agricultural crop produced by the South for the world market. Cacao is indigenous to the Amazon basin. It was used by the Aztecs in religious ceremonies. In the early nineteenth century, Venezuela accounted for half of the world’s production of cocoa. Later, the Portuguese began to plant cocoa in Brazil. By the end of the nineteenth century, the British, French and German started to plant this crop in African countries under their rule. Ghana, Nigeria, Ivory Coast and Cameroon provided 65% of global cocoa production by the seventies. Brazil and Malaysia started to increase production between 1980-1987 buoyed by the high price of $1.72 per pound for cocoa in 1977. Over-production
coupled with marginal increases in consumption led to falling prices, often below the costs of production. Between 1970-1990, Africa dropped from 71% to an estimated 54% of world cocoa production. On account of technological advances, Malaysia is a country in which substantial yields in cocoa production for the world market are expected to occur. Ownership of this technology is most likely associated with the names of those known for the production of famous-name chocolates - Cadbury-Schweppes, Mars, Hershey and Nestle.

In the US the largest research effort... is underway at Pennsylvania State University, where over 15 chocolate manufacturers are supporting a multi-million dollar research programme on the molecular biology of *Theobroma cacao* (the cacao plant). Researchers are using both tissue culture and genetic engineering to create higher-yielding and higher quality cacao beans, as well as plants which have greater disease and insect resistance... The end result would be a sugarless, sweet-tasting chocolate product... eliminating the need to add sugar in the manufacture of chocolate... the benefits of advanced technologies and high-yielding cacao varieties will be skewed towards large-scale cacao growers (Fowler et al, 1988: 101).

Yield as opposed to land under cultivation is the driving force behind cocoa production, inspired by the advances of biotechnology. Malaysia, home to large cocoa plantations, produces "twice as much cocoa from a hectare as does Brazil, and up to six time (sic) more than Ghana or Nigeria" (Hobbelink, 1991). The small farmers of Africa are unable to compete against the biotechnological farm which has appropriated cocoa production. Their counterparts in Bahia, Brazil, producing 90% of that country’s cocoa, are similarly disadvantaged. There, 20,000 traditional small-scale independent cocoa farmers have been forced to look for employment on the "new" plantations producing flavour of the century cocoa for the TNCs. As day and

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95. These companies together control 80% of chocolate and chocolate products produced globally.
seasonal labourers, toiling for foreign capitalists on land which was previously their own, poor Brazilians - primarily Indigenous, African and mestizo - stand on the threshold of a return to peonage and slavery in the Americas. Earning a pittance, they will be indebted to the foreign masters for food, board and medicine as in the heyday of the mines and plantations of their ancestors’ history.

Biotechnology is also being used to produce cocoa-butter substitutes (CBS). In the contemporary period, the edible oils industry led by Unilever and Fuji Corp. is leading the drive to develop cheaper cocoa butter substitutes from cheap oils. CBS can be made from oil-seeds, fish oil and whale oil. While oil-palm is a main target on account of its cheapness, scientists have also used safflower, rapeseed, soybean, sunflower and the oils and fats of crops that grow successfully in the North. The intention of biotechnology, however, is to produce cocoa without plants utilising micro-organisms in the laboratory. Although countries legislate how much “natural cocoa” should be used in the making of chocolates, the constant lobbying from powerful TNCs in the edible oils and cocoa industries to liberalise these requirements will ultimately lead to substitutes cultured scientifically coming to be sold under the rubic of “chocolate”. In the USA, CPC International holds a patent on a process which converts yeast into CBS. In Japan, Fuji Oil is using microbes to produce CBS. Wessanen, a subsidiary of Beridford, a UK-based company, has filed for patents in the Netherlands on a technique to produce CBS from various yeast strains. Laboratory produced chocolate will make the “new” plantations unnecessary in a short while and the lives of its landless labourers irrelevant. Where will these workers go? Who will resuscitate the land which, in the overall experiment to increase yield, would have been subjected to poisons, destructive cultivation practices and
harmful after-effects owing to the diversion and death of natural water sources? The answers to these questions are obvious enough to those familiar with the tradition of capital to use, abuse and discard. Meanwhile, the boxes of chocolates purchased in the near future will carry no report on the living death imposed on cocoa growers by the TNCs which produce sweets and confectionery. There will be no reference to their attempt to create life of another sort to instigate the death of cocoa as we know it.

6.4. Vegetable Oils

Vegetable oils\(^{96}\) are an important export for many countries of the south. At present, however, the North is battling to eliminate these producers from the market. Both South and North cultivate soybean, rapeseed (under the name, canola) and sunflower, while the South is the exclusive producer of palm oil. These four vegetables make up a little under three-quarters of all oils produced globally. The major candidates for biotech research, at the moment, are rapeseed, soybean and oil-palm. Unilever, the world’s largest vegetable oil buyer and largest food enterprise, has established cloned oil palms in Brazil, Colombia, West Africa, Indonesia, the Philippines and Malaysia. In its laboratories in the UK and Malaysia, Unilever is capable of producing more than half a million oil-palm clones, annually. The palm and palm-oil have been sources of food and shelter to poor people and animals for centuries. To Unilever’s research efforts, designed to change the structure of the components in oil-palm seeds, this historical association between people and palm is of no consequence. Further, nutritional value of this

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\(^{96}\) Some nine crops are harvested for their oils. These are olive, coconut, palm kernel, groundnut, palm, cottonseed, sunflower, soybean and rapeseed.
food source is irrelevant. Their long term goal is “to modify the fatty acid composition of oil-bearing seeds to make them ideally suited to manufacturing purposes” (Hobbelink, 1991).

Although the Unilever clones planted in Malaysia in 1983 “produced flowers that were neither male nor female, and the fruits were aborted”, Malaysia is now exporting about one-quarter of all edible and marine oils on the global market. The Malay oil glut on account of the new high-yielding clones is affecting small-scale farmers of palm-oil in Africa and coconut growers in the Philippines. Malaysia is currently the target of a vitriolic public relations campaign being waged by the US Soybean Association, which is informing American consumers that palm-oil is a “tropical fat” which is “unhealthy”. Incidentally, this strategy is one which was successfully employed by Unilever in the Caribbean to force the coconut growers’ association (CGA) in Trinidad to stop the production of oil from coconut, so that a demand for an alternate cooking oil could be created for this TNC to fill. Production of palm-oil in Malaysia already supercedes that of soybean oil, resulting in losses for US soybean farmers. The price of palm-oil is already low because of high yielding clones on massive plantations. Once scientists have had access to enough plants for tissue culture research to be perfected for commercial purposes, the yields from the plantations will not be needed further. Industry will argue that they will not import palm-oil in order to protect US vegetable oil farmers. Meanwhile palm-oil will be converted into cocoa butter substitutes, as discussed earlier. No imports from Brazil or Malaysia will matter. The laboratory will be the new agricultural field centre.

In the quest to create plant life away from its natural habitat, Calgene is undertaking research on rapeseed hoping to produce “high-priced specialty oils . . . derived principally from
coconut and palm kernel”. Some of this research is currently taking place at the University of Guelph in Canada some 25 kilometres west of Toronto in Elora. Although Pollution Probe and other NGOs called for a ban in 1991 on field-tests on DNA-altered crops in the face of an absence of Canadian legislation on genetic engineering, Agriculture Canada saw no need to inform the public nor to design contingency plans on account of the risks associated with the escape of genetic material from plants used in field-tests. Despite the fact that Agriculture Canada believes it already possesses “a well-developed regulatory framework” for the biotechnological industry, associate professor of genetics, Joseph Cummins of the University of Western Ontario, offers a prophetic, cautionary, contrasting view. Noting that altered cells can “flood the environment”, Professor Cummins warns that the leaves of test plants often blow away only to decompose into the earth or to be eaten by insects. At this point, sap-sucking insects transfer viruses utilised in gene transplants into the environment at which location, these viruses combine with other organisms to create diseases of a life-threatening nature (NOW, 1991). Cummins rings another bell of warning, alerting consumers of the risks to their health, and, quite possibly, to the survival of human beings, when genes in tinkered crops enter the bloodstream-

The likelihood that food genes may circulate in the blood and integrate as fragments into chromosomes has been ignored or discounted by authorities promoting biotechnology and gene tinkered food. However, there is a significant concern about the production of new viruses in the bloodstream by the process of genetic recombination. Humankind has no guarantee that one such recombinant virus could eliminate humankind . . . most of the recombinant crop plants have a gene from a pararetrovirus (cauliflower mosaic virus), the promoter, that acts like a main power switch to make the “desirable” genes for herbicide tolerance, disease resistance, delayed ripening or increased yield function in the target group active. Along with that, large blocks of virus genes are introduced into crops to make them resistant to

virus infection. Along with the promoters, the genetically engineered crops usually have genes from bacteria for antibiotic resistance. It has been amply proven that crops tinkered with parts of viruses have the ability to recombine with plant viruses from the environment to make super potent new plant viruses. The bits of viruses in plants or animal viruses (retroviruses) are likely to produce potent human killing viruses when they recombine with environmental viruses in the human bloodstream (Cummins, 1995: 47,48).

Life-threatening diseases are on the rise in Canada and in all countries of the South. Cummins' analysis above sheds particular light on the increase in killer diseases in the South, particularly in view of the evidence supplied by RAFI, GRAIN and TWN which proves that genetically modified organisms are being released into the environments of the South. These releases are undertaken by the transnational sector in agricultural and pharmaceutical production as an integral part of WB/IMF policies under SAPs. The words of Robert McNamara set the stage for understanding why the World Bank continues on this course of destruction in the South. The fallout from the creation of "desirable genes" is evident in the North also. In Canada, flesh-eating disease and Kreutzfeld-Jakob Syndrome (KJS), a relative of Bovine Somatotrophin Encephalopathy (Mad Cow Disease) have been publicly identified recently. The latter, as with AIDS, was passed on in blood distributed by the Red Cross. In May 1996, the Hospital for Sick Children in Toronto, Canada, communicated to a little over 500 parents that their children had received blood that might have been contaminated with KJS. The Hospital’s representative indicated that the hospital was anxious to let parents know that there was no cause for alarm since there was no conclusive evidence to support the idea that these children will develop Mad Cow Disease. Coincidentally, the Hospital for Sick Children is a world-renowned centre for genetics research.
Following the reasoned explanation offered above by Cummins, more and more donor blood products may be infecting the blood supply as food, animal and dairy products become more degraded by the proponents of biotechnology. I argue in Chapter 3 that blame for “new” diseases in the North will be directed toward sites of biodiversity in the South so that epidemiologists and the pharmaceutical TNCs can have world opinion in their favour as they seek to “control” the viruses being unleashed from the “receding forests”. At home in Canada, through the control ceded under the terms of NAFTA in the area of health, gene tinkering in foods will continue to allow for the reaping of considerable profits by the pharmaceutical industry.

Research on edible oils continues to depend on methods which are predisposed to generate disease and restructure the genetic codes with which individuals are born. Scientists are currently attempting to produce oils for consumption termed single cell oils (SCO) using microbes. This technology relies on the modification of algae, fungi, bacteria or yeasts. Although still too expensive a process to launch into commercial production, Henkel Company suggests that the microbes used to produce SCO might be altered so that they live on cheaper substrates or, alternately, the microbes could be modified to produce expensive and rare oils. When oils produced this way are the only ones available for consumption by individuals whose immune systems are weakened and under assault by a poisoned environment, the impact on health will be disastrous. The bid for oil, like sugar and cocoa has been launched by powerful companies. To them, crops are not agricultural commodities provided by Nature; they are cells or tissue which multiply in an artificial medium away from the life-giving conditions of the earth. They are cultures which may be cloned into genetically identical copies. They are
processes through which entire plants may be propagated from a single cell in a petri dish so that plants which would normally take months to grow would regenerate within days ready to be mass-produced. Considering the power and profit accorded to the transnational agricultural companies, the full extent of their role in the South may not be revealed. So far, however, it is evident that disease is enhancing the reach and power of TNCs. Thus, one might therefore say, that in a manner of speaking, disease is a growing business for the corporate community and the science establishment.

In the next chapter, I present some of the resistance forces which Peoples are harnessing in contestation of the path of “development” as premised on biotechnology which is snatching away their birthright and the patrimony of future generations.
Chapter 7

From the Four Corners of the Earth: Resistance

7.1. Building a Transnational Social Movement

Ordinary people across the globe have taken on the engineers of disease and destruction undertaking in movements South and North to quell the tide of "development" being propagated by the continued thrust toward globalisation. Modern forms of oppression - bioprospecting, biopiracy, biotechnological colonialism and telecommunications misinformation requiring newly constructed methods of engagement and resistance - are being contested by the majority world in the South whose resources and living cells are being desacralised and commodified. As the resistance momentum grows, people in the North are confronted with the stark realisation that to save four-fifths of the world is to save themselves. The growth model of development is destroying the earth, creating a planet unable to support life. One planet, one fate, one future is compelling reason for action, as efforts are mounted from all cardinal directions of the earth, unifying people who choose life over death. Some of the strategies being charted are provided in this chapter as testimony to a people's agenda for the reclamation of life from the perspective of those whom the present model of capital accumulation seeks to liquidate. In the Americas and elsewhere, the examples of resistance presented oppose the same leviathan - transnationalisation and globalisation and the attendant fallout in this path. For political reasons, therefore, I move beyond the Americas in this chapter. Hitherto, I provide a sketch of the charter of resistance rippling through the Americas and elsewhere, in the actions of people determined to struggle in the face of oppression against the push to incorporate the
entire globe into the consummate marketplace. Befittingly, I open with the resistance efforts of Indigenous Peoples, centering on those whose calling it is to protect the land and all living things. For this, their struggle has been unceasing for five hundred years and more.

7.2. Zapatistas in Chiapas: Resisting NAFTA

On January 1, 1994, news of an uprising of Indigenous Peoples of Chiapas, Mexico made headlines around the world. Naming themselves after the legendary Mexican revolutionary hero, Emiliano Zapata, the Zapatista National Liberation Army (EZLN) not only lashed out against their continuous struggle against poverty, landlessness and injustice, but, they declared that they were protesting against the North American Free Trade Agreement put in place between Canada, the USA and Mexico.

The Zapatistas are mainly Tzotzil or Tzeltal Indian peasants from the Lacandona forest. Some are Guatemalan refugees escaping the massacres of the army in Guatemala. Some are Mexicans. Dan La Botz tells that almost all of the Zapatistas who launched the New Year’s Day offensive were young men between the ages of sixteen and thirty. Declaring war against the army and the government of Carlos Salinas de Gortari, some 2,000 armed members of the EZLN proceeded to occupy the farms of San Cristóbal de Las Casas, Ocósingo, Altamirano and Las Margaritas. They attacked the Rancho Nuevo military base, located in Chiapas signalling their intent to march on Mexico City. The events of New Year’s Day, 1994 should not have come as a surprise to anyone familiar with the chequered history of the Indigenous Peoples of Mexico spanning some five hundred years and more. Most of the 3.2

98 About 70,000 Tzeltal, Chol and Tzotzil Maya established farms in the Lacandon forest in an attempt to eke out a living in an area perceived as being more viable than the poor land of the ejidos.
million people who live in Chiapas are descendants of the Mayas. Distinct Peoples such as the Tzeltales, Tzotziles, Choles, Zoques, Mames, Tojolo-bales with their own languages, cultures, religious and traditions share a common space with other purportedly near-extinct Peoples such as the Mochós, Cakchiqueles and Lacandones. The protest registered against NAFTA was not reactive nor without organisation. Rather, it was “part of a hemisphere-wide movement of indigenous people to resist extinction” in the face of unprecedented threats (La Botz, 1994: 39).

To trace this movement - three hundred indigenous people staged a sit-in or planton at Palenque (a Mayan ruin) on December 26, 1991, protesting the lack of health care, schools and potable water and increasing landlessness as a result of government policy. Police brutally removed the demonstrators from Palenque. The 103 who were arrested were tortured over a three-day period. Three months later a 700-mile march was organised by indigenous rights organizations in which 300 people from Palenque walked to Mexico City in a demand for justice - the respecting of human rights, the provision of basic services and agrarian reform. Under pressure, the Mexican government negotiated an accord, which, in complying with its previous history, it failed to fulfill.

In 1991, Carlos Salinas de Gortari introduced a new “reform” to the Mexican constitution in a move calculated to win the approval of the engineers of NAFTA. In Gortari’s amendment to Article 27, the opening of the Mexican economy to privatisation is evident. In

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99 Dan La Botz states that over the last twenty-five years, there has been a series of peasant uprisings, some of which had been armed and involving as many as 7,000 insurgents. Then, as now, giving rise to these uprisings were the social and economic problems of marginalised indigenous people within the larger context of the Mexican State (See “The Chiapas Rebellion: A Political Analysis” - Jan. 1994 - Detroit, Michigan, p.6).

100 The site of a culturally significant Mayan ruin.
the amended constitution, the ejidos or communal land holdings of the Indigenous Peoples may be purchased and exploited by outside corporations and individuals. NAFTA, therefore, serves to exacerbate the situation of the indigenous peasants of Mexico. The picture with respect to agriculture is grim. It is an uncanny reenactment of the imposition of latifundias and plantations in the Americas. This time, in an unprecedented manner, force of arms, government complicity and trade agreements bolster and support new forms of imperialism, in a country that, up to recently, was self-reliant in food production. According to Jorge Calderón, an agricultural economist, about a million campesinos have been forced off their land in the last 30 years in Mexico, where, some 2.7 million ejidatarios (communal farmers), 4-5 million landless agricultural labourers and 1 million small property owners are engaged in agricultural activities. In 1990, Calderón pointed out that a free trade agreement would accelerate the rate at which peasants were becoming impoverished. He indicated that farmers whose holdings had not yet been taken over by agribusiness or land barons could not possibly compete with US TNCs in the production of corn, rice, wheat and beans since "... the US government gives to its farmers ... depending on the year measured, between ten and twenty times the total budget of the Mexican Ministry of Agriculture and Water Resources" (Salazar, 1991).

NAFTA's effect - acceleration of foreign investment and intervention leading inevitably to greater displacement and exploitation of the region and the Peoples - is already evident in the Chiapas region. Major oil companies are planning to exploit the rich oil deposits; transnational corporations such as Nestle are seeking to convert land to coffee production; investors are eyeing major expansions of the tourist industry centering on the great Mayan ruins, despite
Native Peoples' protests that these are the homes and temples of their ancestors (Morin, 1994: 41).

In Chiapas, the state associated with the Zapatista resistance, statistics on basic needs are as scandalous as they are grim. According to Covert Action Quarterly (Spring 1994), Indigenous Peoples continue to be subjected to some of the most racist and dehumanising conditions evident in contemporary Mexico. In Chiapas, for instance, the number one killer is malnutrition; a record 30.1 percent of Chiapas - the highest in Mexico - is illiterate; forty-two percent of the people do not have access to running water; a vast majority of the homes in Chiapas (as in neighbouring towns) has dirt floors; and, while producing 60 percent of Mexico's electricity, 33.1 percent of households in Chiapas do not have electricity (La Botz, 1994: 40).

Assisted by the geographic isolation of Chiapas, government reprisal in this state is swift, brutal and racist. The racism of the state is evident in its targeting and hounding of anyone who advocates on behalf of Indigenous Peoples, as the recent experience of San Cristobal's Don Samuel Ruiz Garcia, dubbed the "Red Bishop," demonstrates.\(^{101}\) Because the Indigenous Peoples of Chiapas are considered to be "only Indians" by the dominant Europeans and other Europeanised Mexicans, they are paid lower wages than other workers, their living conditions are abysmal and they are often the recipients of beatings, rape and torture conducted by agents of the state and employers.

\(^{101}\) The Vatican had been reviewing complaints against the Bishop's support of the EZLN with a view to removing him from his position in Chiapas.
In 1910, Emiliano Zapata took up the cause of the peasants in Mexico in a Revolution seeking justice through reform and a redistribution of land. The agrarian reforms written into the constitution of 1917, however, were never drawn on to protect the traditional rights of the indigenous in their claim to land holdings. In the absence of state-distributed land titles and the implementation of progressive agrarian policies, the indigenous of Mexico have regularly been subjected to police brutality, terrorism and confrontations with hired henchmen in the employ of land barons seeking to extend their holdings.

Indian communities held land in communal ownership (ejidos) long before the arrival of Columbus and Cortez. In the 1930s, under President Lazaro Cardenas, peasants were the recipients of millions of hectares of land. In the 1950s and 1960s more land was distributed. The number of families living on ejidos in Chiapas increased from about 71,000 in 1950 to over 148,000 in 1970. Serving as a “safety valve”, the land distributed to peasant families was generally the poorest and least productive, agriculturally. Lack of governmental financial support, little modern equipment, the high density of population subsisting on rapidly degrading soil, all taken together, contributed to the growing poverty of families on the ejidos. Unable to support themselves on ejidos or minifundias (small farms less than ten hectares owned by peasants) Indians often work as day labourers on coffee plantations earning less than the minimum wage (La Botz, 1994:7). In the midst of entrenched Indian poverty and growing landlessness, however, various forms of “economic development” have been visited on the residents of Chiapas. In the 1970's, a hydroelectric complex, the Grijalva - Usumacinta was built in the Central Valley. As a result of this project, hydroelectric dams at Malpaso, Chicoasen and La Angostura flooded 200,000 hectares of land. The development of the La
Reforma oil fields of Tabasco and northern Chiapas created jobs which went to workers from states other than Chiapas. This is the context within which the resistance at Chiapas, Mexico emerges and is sustained. On September 12, 1995, negotiators from the Mexican government spent seven days with the Zapatistas discussing their proposals for peace and justice. On October 24, 1995, US Defense Secretary, William Perry visited Mexico to pledge US “support for the modernization of military hardware and the improvement of personnel for combating the drug trade”. Subsequently, high-tech radar equipment and twelve Huey-H1 helicopters were purchased by the Mexican government from the US government to “fight drug trafficking”. Although there is now one resident member of the military for every three of the residents of Chiapas, the Zapatistas continue to fight starvation, disease, intimidation, rape, violence, land appropriation and genocide in their attempt to counter the forces of capital. They have used the media to alert the world of their plight. They have galvanised support internationally, and, in Mexico, itself. They have been the first revolutionary group to be granted their demand to hold a national and international plebiscite. The plebiscite was the largest in the history of Mexico, recording 1,088,094 ballots. As the EZLN continues its struggle, undaunted by the military hardware and advisors from the USA, Subcomandante Marcos and the Zapatistas have broadened into a political movement forming alliances with leftist movements at home and linkages with NGOs across the world. Marcos’ words of resistance are as inspirational as they are prophetic-

The crash of these two winds will be born, its time has arrived, it has stoked the fire of history. Now the wind from above rules, but here comes the wind from below, here comes the storm ... that is how it will be ... when the storm calms, when rain and fire again leave the country in peace, the world will no longer be the world but something better(New Internationalist, May 1996: 28).
7.3. Alliance against biopiracy: Collective Intellectual Property Rights

In Karnataka the presence of 35 million farmers has contributed to this state's being a major agricultural production zone in the south of India. In October 1993, in a demonstration staged by the KRRS\(^\text{102}\) in Bangalore,\(^\text{103}\) more than three-quarters of a million farmers turned out to protest against the Dunkel Draft of GATT. Specifically, they took to the streets to express their resistance to the attempt of Western transnationals to wrest control of the food chain away from growers, through the invocation of intellectual property rights, as defined in the GATT international trade treaty being "negotiated." According to the president of KRRS, Professor M. D. Nanjundaswamy, the farmers who may be lacking in formal schooling for the most part, "... understand genetics much faster than the Indian intellectuals," because their work and way of life bring them into a close vibrant relationship with plants and seeds. Beginning in February 1992, these farmers began to attend seminars on the Dunkel Draft under the steering of the KRRS. At the end of that year, a group representing the farmers of KRRS visited the Cargill\(^\text{104}\) Seeds India office in Bangalore where they "... threw everything they could out the windows, then burned the papers on the street below" (Kneen, Feb. 1994: 4).

Cargill's office in Bangalore has since installed an outer steel accordion door, an inner glass door and a security guard between both structures to ensure that irate farmers do not enter the building in the future. At its seed plant site being constructed outside Bellary, located 300 km north of Bangalore, a wall of granite encircles the fortress-like building, whose towers come fortified with a complement of guards.

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\(^{102}\) Karnataka Rajya Raitha Sangha - (KRRS) - Indian farmers' association.

\(^{103}\) Bangalore - the capital of Karnataka.

\(^{104}\) Cargill is the largest PL 480 (Food for Peace) transnational in the world.
Cargill is a company to watch. They have set dangerous precedents for others to follow. This particular TNC has refused to put imported seed samples into the national seed bank of India, defying a national law which, according to Dr. Mangala Rai of the India Council for Agricultural Research (ICAR) exists "... to ensure that the seed that is brought in is the same as that claimed by the company ... and to have a check sample if disease turns up in imported seed". Cargill has also sold inferior varieties of seeds in India opting to ignore those types recommended for sale by the ICAR in a country whose size and variability make seed diversity a standard requisite. In The Ram's Horn (No. 112, Feb. 1994), Brewster Kneen cautions that Cargill's venture into India should be viewed as part and parcel of the global extension of a powerful food transnational, seeking to expand its interests even further and maximise corporate capital in sites in the South where trade liberalisation and international trading arrangements such as GATT allow for even further reaping of profits at the expense of people in the periphery. This company has already undertaken initiatives guaranteed to consolidate its foothold in India, not only as a provider of food, but, also, as private capital holding a major or controlling interest in Kandla Port. The Port may be a conduit for the transportation of wheat and rice for export from Northern India if the government builds a railroad between Bhatinda in Punjab and the Port on the west coast. Cargill has also sought permission to initiate citric acid production based on corn as an input. Further, it has expressed interest in ethanol and lysine, a derivative of corn, the latter being a component which is added to feed for the Indo-Canadian Holstein cows.

105 A derivative of corn.
Under no illusions of Cargill’s long-term goals, the president of KRRS has summarised Cargill’s mission in India thusly, citing their intent as being, prophetically,

First to take control of the seed and second, take control of the food market. They want to damage the food security system in India\(^{107}\) by introducing sunflower and maize. They will not even allow Indian people to use maize as food because they will use it for other purposes, such as animal feed. By increasing the growing areas for maize and sunflower, they will be making India dependent on imported food. Last year they already started by supplying wheat to India from the US, subsidized by the Export Enhancement Program of the US Department of Agriculture (Kneen, Feb. 1994: 6).

Subsequent to their entry into India in 1988, Cargill began to lay the framework for strengthening its foothold in that country. Indeed the direction and boldness with which this transnational is proceeding, while being a matter of grave concern within the context of India, ought to alert other countries of the South of the wider and long-term intention of agribusiness to appropriate control, production and distribution of food in marginalised economies and, of the overall goal which is to subjugate people’s lives to the will and whim of international business. Within this context, this example has to be widely publicised to serve to inspire others.

Indian farmers are keenly aware of the lengths to which Cargill will resort in its quest to recolonise India in an economic climate emphasising trade liberalisation within the overall

\(^{106}\) Cows injected with rBGH or BST - recombinant bovine growth hormone or bovine somatotrophin. Recombinant Bovine Growth Hormone sold in the US under the name, POSILAC. In Canada, rBGH is being “pushed” by PROVEL, the animal drug division of Eli Lilly. BGH - “An artificial hormone that stimulates cows to produce more milk. The hormone itself is produced by extracting growth hormone from cows and using gene-splitting techniques to create synthetic hormones. They are injected into dairy cows on a daily basis.” Taken from Alive: Canadian Journal of Health and Nutrition. No. 146, Nov. 1994. p. 53. In “Cows Can’t Say No - But We Can”.

\(^{107}\) My emphasis.
context of a declining global economy facing challenges from Japan, the EU (with its periphery of Eastern Europe) and the newly industrialised economies. In a move reminiscent of the events of 1943 in India, they have already exposed the connections between Cargill and the late Colonial Britain, undertaking a ‘bicycle march’ on March 15, 1993, arriving in Kandla Port on May 17, 1993, at the same site and on the same day that Mahatma Gandhi registered his famous protest against British rule. Cargill is involved in a series of business negotiations with India. It is seeking to establish a salt production site there because its plants in California and Western Australia producing some 5 million tonnes of salt a year do not meet predicted future demand. In actuality, Cargill Southeast Asia has already obtained approval from the Foreign Investment Promotion Board of the Indian government “to set up a 100% export-oriented unit to produce one million tonnes of high-quality sun-dried or solar industrial salt a year [in Kandla Port, Gujarat State]” (Kneen, Sept. 1993: 3). The Indian government has also gone out of its way to grant Cargill permission to build a jetty (estimated to cost $25 million) in Gujarat State. This jetty will surpass the capability of others already established at docks in Gujarat allowing for the loading of 10,000 tonnes of salt a day as compared with the 1000 to 2000 tonnes capacity of those presently in existence.

Although the Kandla Port Trust was advised by concerned researchers to not allow Cargill the use of the Island of Satsaida Bet for salt production, under pressure from the government, the Trust was directed to “enter a caveat in the civil court so that no one else could go to court to block Cargill’s being given the land it wanted.” Meanwhile, the researchers have warned that, not meeting the requisite seven metres above sea level for salt production, (Satsaida Island is 6 - 6.5 metres above sea level), the Port would suffer siltation
and contribute to the ecological damage of its mangroves because of the interruption of the natural flow of the tides. As an added factor, some 25,000 Indian workers employed in salt production would lose their livelihoods because of Cargill. Cargill has selected India as an early testing-ground on account of the vastness of that country’s population. If this transnational could displace the 76% of the total Indian population employed in agriculture, it would be providing food for some 844 million people, three times the combined population of Canada and the United States (Kneen, Feb. 1994: 2). If this task can be accomplished in a country with such a large population, doing the same in smaller countries of the South will be child’s play. Cargill is testing its mettle on India.

Indian farmers, however, are not likely to let up in their mobilising against Cargill. On the Independence day of India- August 15, 1993, as they sounded trumpets and drums, Karanatakan farmers made known their intent to assert *collective intellectual property rights* (CIPRs) - local common rights, protected by what they consider to be a collective knowledge patent - a “Samuhik Gyan Sanad” which recognises that knowledge is a social product created by individuals. CIPRs rejects the Northern propagated and exploitative view of “common heritage of mankind” which has been utilised again and again to freely access, appropriate and plunder the South’s biological knowledge and resources. As expressed by the Indian farmers, and articulated in *The Ram’s Horn*.

Free exchange within a community sharing a commons does not allow free access to those outside the community. To translate local common rights into global free access is part of the Northern flaw in understanding how the use of commons is strictly regulated and limited (Kneen, Sept. 1993: 5).
These farmers, as Kneen has observed, have put forward their positions as custodians of the biological, collective wealth of Indians. Their concept of CIPRs stands in opposition to Northern notions of patents and intellectual property rights which consider biological organisms as private property to be exploited and manipulated. In a truly revolutionary stance, farmers express the view that corporations exploiting and appropriating the common rights to resources by Indians are engaging in “intellectual piracy” and ought to be punished. India’s farming community has posed a challenge to frameworks imposed by the North through international trade agreements such as GATT and the Biodiversity Convention. Their construct of knowledge as arising from within communities through the practices of members following the local and specific and the wisdom of departed elders, is not unique. It is the view of many of the South. TRIPs, therefore, are an aberration, deviating from the construct of knowledge held by the majority of the world. TRIPs reveal the limits of Western knowledge and arrogance. Despite the state-supported attempt to institutionalise this Western-originating idea of property globally, Indian farmers, secure in their understanding of colonialism and imperialism, are stepping up the resistance, using “people-power vs money-power,” in the words of sixty year old Professor Nanjundaswamy, leader of the farmers, to overthrow the transnationals in India. Professor Nanjundaswamy, a Gandhian, was recently arrested and charged with looting, violence and attempted murder. The KRRS, which believes that no power can withstand people’s power, has opposed the entry of W. R. Grace, McDonald’s, Cargill Seeds and Pepsico, among others, into India. These farmers of India, like the others cited earlier, have established a path for others to follow, young or old. They will continue to resist the injustice of the new world order-
The KRRS is strongly opposed to globalisation and corporatisation of agriculture and the entry of multinational corporations (MNCs) into the agricultural sector. In May 1995, when the government of Karnataka introduced a new agricultural policy and proposals to reform the land laws to facilitate the corporatisation of agriculture in the state, the KRRS organised a massive rally in Bangalore where the farmers burnt copies of the State Government’s New Agricultural Policy and Land Reform Amendment Act. It believes the New Agricultural Policy and proposed land reforms of Karnataka are not sustainable, will divert vital natural resources from meeting the needs of local communities to short-term exports, and mess up the environment (Assunta, 1996: 36).

The image of more than three-quarters of a million farmers protesting in Bangalore, India is empowering. Notably, transmission of this important event has not occurred in the Western media operating to serve the needs of corporate capital. I have chosen to speak of resistance in India because the example is perhaps not well-known, having been ignored by the Western-controlled news industry. This example is also being discussed because it is the first case to my knowledge of a challenge being posed by a global community spearheaded by the South, which engages directly with intellectual property rights asserting, alternately, the rights of people over profit.

7.4. The neem tree and W.R. Grace, biopirate

In the race to appropriate the knowledge and biological resources of the South, W. R. Grace and Co., an American transnational chemical corporation, purchased the patent for a pesticidal product, Margosan-O, derived from the neem tree by Indians in India. The neem tree has been used for millennia, ranking in versatility next to coconut palm and bamboo. It has been mentioned in ancient Indian texts such as the Upavanavinod, a Sanskrit document on agriculture and forestry. Traditionally, access to neem - some 14 million trees exist in India -
has been cheap or free. W.R. Grace has set up a plant in India to process neem seed for export to the USA. They have also established a seed supplier network, to ensure a constant supply. The extraction process on which the patent hinges, apart from the sheer immorality of this instance of biopiracy, is novel only "in the context of the ignorance of the West" according to Vandana Shiva (1995: 20). In reality, Indian scientists in the 1960s and 1970s had already developed this technology, but, in the tradition of a community-oriented society, they recognised that their achievement was derived from anonymous experiments of generations, making it impossible for any one individual to claim ownership over collective work conducted over centuries. Western individualism, however, is dismissive of this worldview, which would hamper "business as usual" for the profit-makers. Indian farmers, activists and politicians have denounced W. R. Grace for expropriating centuries old indigenous knowledge and innovation. The battle which is being waged, transcontinentally, provides precedent setting case history material for others faced with similar challenges who might find, as the Indians have done, that even as outsiders attempt to commercialise the resources of Southern communities, to justify their plunder, they often resort to a "racist dismissal of indigenous knowledge" as a precondition to claiming ownership (Shiva, 1995: 20).

At present, a legal challenge led by a global coalition of more than 200 organisations from 35 countries, has been mounted against W. R. Grace. Filed against the patent granted by the US Patent and Trademark Office, this battle is significant in many respects, one of the most outstanding being that it is a test case of the Western, or, more accurately, the transnational concept of intellectual property rights.
In Washington in September 1995, more than 200 organisations from 35 countries filed a petition at the US Patent and Trademark Office calling for the revocation of a patent given to W.R. Grace Company to use a pesticide extract from the neem tree. They argue that the company has wrongfully usurped an age-old biological process used by millions of farmers for generations. The legal challenge is led by the US group Foundation on Economic Trends led by Jeremy Rifkin with other key petitioners being the Research Foundation for Science, Technology and Natural Resources Policy (RFSTNRIP) and the Karnataka Farmers' Union (both from India), the International Federation of Organic Agricultural Movements (IFOAM) and the Third World Network(Khor, 1995: 10).

As transnationals redeploy to capture the resources and biodiversity of the South, the story of the neem tree, now a symbol of resistance, must be shared. It is perhaps fitting that this tree referred to in old Indian texts as “the blessed tree” should galvanise efforts South and North to contest the forces of capital. Essentially, the issuance of Patent No. 5,124,349 to W. R. Grace displays broad ignorance through the invocation of a paradigm of knowledge designed by a minority of European males which is arrogant, limited, individualistic, profit-oriented, annihilistic and racist. A “blessed tree” of cultural and religious significance to people of the South for centuries cannot be handed over to an asignee in the North through a process designed by the West to facilitate plunder and colonise populations. This would be sacrilege. This is the inherent flaw in the notion of TRIPs. If the Patent Office of the US government is unyielding, this matter should be taken to the World Court in the Hague, if only for the symbolism of the effort. The case should be presented in conjunction with similar cases from the South, making this form of resistance a strong transcontinental movement of Peoples for justice and peace.
7.5. Grains and Seed-Saving (Bill C-7)

Genetic Resources Action International (GRAIN) is an NGO supporting the work of people the world over as they struggle to control their farming systems, their seeds, the management of their genetic biodiversity, their food security and health. GRAIN has been a stalwart supporter of people’s efforts to control the quality and diversity of the food which they eat. What is remarkable about this NGO is the all-encompassing scope of its analyses and activities to combat the attempt of the World Bank and the transnationals- (agricultural, pharmaceutical, pesticide) aided by GATT/WTO and highly funded biotechnology industries to appropriate and commodify the food chain. GRAIN is a point of contact for information for groups and individuals in Europe and the rest of the world. It monitors and publishes accounts of biotechnological research. Its considerable mandate and commitment extends itself into information dissemination on the implication of intellectual property rights legislation and developments in the seeds industry for countries of the South. Further, with other network partners, GRAIN lobbies UN agencies and international organisations to reformulate policies. Underlying the activist nature of GRAIN is the analysis that, in the drive to continue the accumulation of profit in a faltering global economy where, in developed countries, the purchasing power of consumers is being limited increasingly because of layoffs, bankruptcies, reduced welfare subsidies and the migration of business to enclaves in the South, capital can be assured of continued surplus extraction if it privatises the South, including the South in the North, through the exploitation of biodiversity (including land and water appropriation). Indeed, GRAIN makes visible the connections between the transnationalisation of capital and
the transnationalisation of agriculture in its fundamental statement outlining the purpose for its existence.

Genetic resources have become a tool for profit and fuel for political concern. The extension of monopoly rights over plant varieties, their genes and characteristics, further threatens world food security. As crop diversity diminishes, farming systems and farmers themselves grow more vulnerable to an array of pressures. Genetic erosion and the privatisation of genetic resources are, together, undermining the very base of sustainable development (GRAIN pamphlet - Barcelona, Spain. n.d.).

In recognition of the vast capital capabilities which may be generated from crop diversity, on June 20, 1994 in Nairobi, Kenya, the World Bank attempted to install itself as trustee over the germplasm “donated” by economies of the South (half a million samples of crop biodiversity) and contained in nineteen international agricultural research centres (IARCs) controlled by the Consultative Group on International Agricultural Research (CGIAR). The CGIAR is a group of donors sponsored by FAO, UNDP and the World Bank. Membership in the CGIAR is mainly from the advanced capitalist countries, the financial donors. At the meeting in Nairobi - the Second Session of the Intergovernmental Committee of the Convention on Biological Diversity - the forty environmental and development NGOs attending, led by RAFI (Canada), Third World Network (Malaysia) and GRAIN (Spain), revealed on June 20, 1994, the first day of the session, that the World Bank had intentions to assert leadership over the CGIAR having determined this to be preferable to the CGIAR’s being placed under an intergovernmental authority assuring one nation one vote. As pointed

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108 Earlier, I looked at the role of the FAO with respect to Resolution 6/81 and the FAO/IBPGR connection. Attempts by the North to control “donated” genetic materials resurface again in 1994, this time with a position having been mapped out by/for the World Bank.
out by the NGOs, this positioning by the World Bank, which governs on the basis of size of financial contributions of countries, was nothing less than an attempt to seize "trusteeship over the Third World's germplasm". The attempt to seize control over resources critical to the sustenance of life gives credence to the view that the overall goal of the World Bank with the IMF is no less than complete governance in the South. Put this action alongside the Halifax endorsement by the G-7 countries advocating more control by the IMF through the WTO in economies in the South. Seizure of half a million samples of crop biodiversity "donated from farmers in the developing world and represent[ing] the world's most important stock of unique breeding materials",109 would certainly give the World Bank considerable control over food. The resistance efforts of the NGOs gathered in Nairobi, Kenya on June 20, 1994 forestalled the World Bank's strategy to wrest control of the food chain out of the hands of peasants, women, farmers, aboriginal people and other custodians of the earth. There are lessons to be learned from this triumph. If forty NGOs can succeed in stalling the tide of imperialism from a naked, avaricious bid for power, globally, how much more might by attained if an organised consortium of NGOs representing all existing countries lobbied together to rectify the detrimental economic policies being implemented across the world? A world community of NGOs and people united to contest the power of capital is long overdue. The efforts of all will be needed, for the World Bank will redouble its efforts toward more control in the South.

7.6. The People's Rejection of Life Patenting - Resistance South and North

"... the European Parliament did away with a proposed piece of legislation that would have canonised the patenting of life as an acceptable trend for the entire world... The European Union's directive on "The Legal

Protection of Biotechnological Inventions... is now clinically dead. This is a new morning in the history of intellectual property rights and a welcome opening to contest the commodification of life" (Seedling, March 1995, Vol. 12, No. 1: 4).

The tireless work of international NGOs in successfully lobbying against the proposed European patenting directive on life (published on October 12, 1988), has been tremendous. The March 1995 issue of Seedling indicates that this directive, published by DG - III, the European Commission’s services for industry, developed on the basis of responses to questionnaires distributed by the World Intellectual Property Organization (WIPO). Like other NGOs, GRAIN had been privy to a draft of this document some seven months earlier in April. Moving quickly, GRAIN (then known as ICDA Seeds Campaign) issued and circulated widely to public interest groups copies of “Patenting Life to Become Legal in the EEC” - the first piece aimed at demystifying the European Commission’s proposal.

In June 1988, representatives from 50 NGOs and development agencies harking from 12 European countries met in Humlebaek, Denmark. This first European meeting of Seeds Action Network (SAN) was organized by GRAIN and the North-South Coalition Denmark. The seventy people present resolved at this meeting to co-ordinate and launch their efforts to defeat the European directive. The commitment expressed by GRAIN and the Rainbow Fraction (the Greens - formerly referred to as GRAEL) in the European Parliament (EP) to organise a public hearing in the European Parliament, provided the occasion for the assembly of 200 people to actually launch the NGO campaign on 7-8 February 1989. At the end of this conference where debate on the patenting of life took centre stage, NGOs formalised their agreement to mount
pressure against the patenting directive. In part, in the true spirit of resistance and pro-action, they stated that,

We accept a major role in the development of public discussion and policy related to biotechnology and the patenting of life. We therefore commit ourselves to carry our concerns back to the NGOs and networks with which we are engaged and start a broad campaign against the patenting of life at the local, national and international levels (Seedling, March 1995, Vol. 12, No. 1: 4).

Between 1988 - 1994, conferences, seminars, publications and popular education initiatives on the EU directive and patenting of life surged. By the late 1990's coordinated involvement by environmental groups such as Greenpeace and Friends of the Earth aided the NGOs in their information dissemination efforts. Seedling March 1995 paints a lucid picture of the climate in the European Parliament at the time in which the NGOs were vigorously conducting their popular education campaign. In "The Directive Is Dead", it is stated that, at the outset, the Directive was viewed with apprehension by the Parliament which "... presented over 40 amendments to the text and took a strong stand on a number of issues". Questions directed towards the European Commission, however, by the Parliament, were left ignored. With the signing in late 1993 of the Maastricht treaty, more legislative power was granted to the European Parliament to the point that "the directive now became a joint Council/Parliament directive subject to the new rules of 'co-decision' ".

On January 23, 1993, a text was agreed on through a Conciliation Committee negotiating with both parties. This text accorded the "patent pushers" everything. It was
scheduled to be voted on at a meeting on March 1, 1995¹¹⁰ in Parliament in Brussels. Leading to this meeting, NGOs zealously campaigned to inform the wider community about the directive. They called and wrote members of the European Parliament (MEPs). GRAIN circulated an open letter to NGOs situated internationally. Within one week signed letters had returned from “over a hundred agencies representing well over three million people all over the world”. One day before the vote, in a strategic move, this letter was delivered to all MEPs. Other incidents in Europe are stated to have had a decisive impact on the outcome of the directive.

1. The European Patent Office (EPO) ruled on February 21, 1993 in favour of plaintiff Greenpeace International on a patent for genetically engineered herbicide resistant rapeseed. The EPO stated that although the patent (granted in 1990 to Plant Genetic Systems (Belgium) and Biogen (USA) covers “cells” altered genetically, this patent cannot be extended to “... a whole plant, its seeds and any future generations of plants grown from the cells.”

2. The Austrian Parliament decided to vote against the directive.

3. A resolution representing all the political groups in the Italian Parliament except the Fascists was signed by 85 members on February 23, 1993. The government of Italy, via this communique, was instructed to -

   “promote urgent initiatives toward the European Union and other international organizations in order that the principle of patenting life forms-self-representing animals and plants- be refused”.

¹¹⁰ NGOs were alerted to this fact on February 16, 1995.
4. Other countries such as Austria, Denmark, Luxembourg and Spain also expressed formal reservations about the directive.

Other events occurring around this same period in North America served to increase the ire of elements in the world community. In 1992, Craig Venter, a researcher with the US National Institutes of Health involved in the Human Genome Diversity Project (HGDP)\textsuperscript{111} in its attempt to collect and immortalise human tissue from 722 human populations, including many Indigenous Peoples from around the world, submitted an application for US patents on human brain gene sequences numbering in the thousands. The global uproar which ensued, did not focus in its entirety on the ethical issues surrounding the patenting of human genes, but, rather, took issue with the fact that Venter’s attempts to patent material had been undertaken in the absence of an understanding of what the gene fragments seeking patenting were and without knowing what role these particles performed in the human body. Failing patent criteria - the gene sequences were not new nor useful; further, they were obtainable from data banks already in existence - the US Patent Office turned down Venter’s (and the US National Institutes of Health’s) application.

The debate on the patenting of human genetic materials led some governments to take decisive measures against the granting of exclusive ownership of genes extracted from human beings, as is documented in the following pages. And, as to the whereabouts and fortunes of

\textsuperscript{111} The Human Genome Diversity Project (HGDP) ia “an informal consortium of universities and scientists in North America and Europe . . . which has launched a campaign to take blood, tissue and hair samples from human communities scattered over the globe. The Project is supported by the US government’s National Institutes of Health and linked to the multinational multi-billion dollar initiative to map the human genome structure known as HUGO - the Human Genome Organization . . . The Project’s initial five-year effort to collect human DNA samples from 722 indigenous communities will cost between (US) $23 million and $35 million . . . the full project will get underway in late 1993 or 1994” (RAFI Communique, May 1993: 1. In article entitled “Patents, Indigenous Peoples, and Human Genetic Diversity”).
Dr. Craig Venter, formerly of NIH. Like many other scientists and academics lately associated with the HGDP, he is now a multi-millionaire. He has started a private company - Human Genome Sciences (HGS) Inc., worth $13.4 million. He himself owns 766,612 shares in this commercial venture. Although this enterprise has not yet put on the market a single product, it is one of at least twelve human genomic companies set up in the US recently with venture-capital funding (RAFI Communicque - Jan/Feb 1994: 6). In 1993, SmithKline Beecham (USA) signed a US $125 million deal with HGS. In 1994, William Gates and Paul Allen of Microsoft Corporation, invested US$10 million in Darwin Molecular Technologies, another private company founded by David Galas, a leading genome researcher formerly of the US Department of Energy (Akwesasne Notes, 1996: 92). The genomic “stars” seem to be rising.

The meteoric rise of Craig Venter is not unique. The growth of other “gene boutiques” intent on the commercialisation of human genes and their products has been prolific. International controversy has failed to quell the evolvement of US-based “genomic” companies in partnership with leading transnational pharmaceutical corporations such as Eli Lilly, Ciba-Geigy, Smith-Kline Beecham and Hoffmann-LaRoche. The private corporate sector is now aggressively staking a claim to monopoly control over the privatisation of genetic information and life, itself, in the absence of public debate on ethics and international protocols to protect human being from exploitation. Frighteningly, in a pattern which is replicating itself, HGS Inc., with Institute for Geomic Research, its “non-profit” partner, is continuing to file patent applications for gene sequences for which HGS has “world-wide, royalty-free rights to

all intellectual property produced by the Institute for Genomic Research (Raghavan, 1994: 27-28). Venter provides the pharmaceutical transnationals with biomedical materials for research purposes. His fortunes continue to amass.

At present, the $165 million a year US government funding devoted to the HGDP has been outstripped by far by the millions of dollars pumped out by the pharmaceutical transnationals (the major players in seed germplasm and the major lobbyists at GATT for the inclusion of TRIPs in the final text) in their genomic investments. These companies, already to a large extent in control of the food chain of the earth, are unashamedly attempting to appropriate human life for monopolisation and commercialisation. One is led to think of the possibilities of CBW which might take place under the guise of research for the “good of humanity,” as have been pointed out in Chapter 4.

7.7. RAFI and the Vampire Project: Taking it to the Hague

In “Patents, Indigenous People and Human Genetic Diversity” published in May 1993, the Rural Advancement Foundation International (RAFI) alerted communities of the scope and intent of the Human Genome Diversity Project and of the alliance between the US government and transnational billionaire corporations in the attempt to map the human genome. In the Jan./Feb. 1994 Communique, RAFI raised a question which is of paramount concern to indigenous, minority and communities of the South in view of the power which the HGDP accords universities, scientists and the National Institutes of Health of the US government

113 Chemical and biological warfare.
through the vast data gleaned from these populations. In “The Patenting of Human Genetic Material,” this Communique tells, forebodingly, that -

On October 24, 1992, the New York Times reported that Dr. Robert Stillman of George Washington University had successfully cloned human embryos . . . Livestock embryos are, in fact, routinely cloned by bioengineers. In 1988, the first frozen animal embryo was accepted for patent purposes at the American Type Culture Collection. What’s next? Dr. George Anna of Boston University asks: ‘Since cloned human embryos are not persons protected by the constitution and theoretically could be “immortal” as cloned cell lines, could a . . . “novel” and “useful” embryo be patented, cloned and sold?’ (RAFI Communique, Jan/Feb. 1994: 4).

This question is of paramount concern in an assessment of the HGDP. In Chapter 3, I discussed the third shift of the science establishment to make and remake life itself and the recommendation by Nobel Prize winner, Muller, academic mentor to others like Watson, who was invited to direct the National Institutes of Health Office of Human Genome Research in the USA. Essentially, Muller advanced that biologists should reach down into the “. . . chromosome, the virus, of the bacteriophage. . . “ to begin “gene-mutation study”. The pharmaceutical, telecommunications and agricultural transnationals, the science establishment, the WB/IMF, GATT/WTO, the US and Canadian military and governments of the advanced capitalist countries, led by the USA in its quest for global hegemony, have worked together to bring populations of the South including the South in the North to the point where their patriarchal, scientific, capitalist, racist agenda no longer hidden, is overtly being applied. These agents of genocide have forgotten that communities in the South have resisted the same agenda for more than 500 years.
In May 1993, RAFI notified the World Council of Indigenous Peoples (WCIP), the First International Conference on the Intellectual and Cultural Property Rights of Indigenous Peoples and other indigenous organisations, about the HGDP’s proposal to collect human tissue from Nations around the world. In June 1993, the WCIP and RAFI spoke at the United Nations Human Rights Conference in Vienna, calling for a halt to the HGDP until Indigenous Peoples had themselves assessed and addressed the ethics of such a project. RAFI discovered in August 1993 that, even as Indigenous communities were condemning the HGDP, the government of the USA had applied for world patents on the cell line of a 26-year old Guaymi Indian woman from Panama, who herself, has not been informed, to date, of this process. RAFI worked with the Guaymi General Congress in Panama, the World Council of Churches and a growing number of organisations across the world to oppose the US government’s patent claim, WO 9208784, to human genetic material appropriated from the Indigenous woman. In October 1993, RAFI and the President of the Guaymi General Congress protested the action of the US government in Geneva, at the inter-governmental meeting of the Biodiversity Convention, and at the GATT Secretariat. The GATT TRIPs Secretariat informed Isidro Acosta, the Guaymi President, that human genetic material is not excluded from the GATT agreement. In October, as outlined above, the Greens introduced an emergency resolution in the European Parliament opposing the world and US patent claims. They called for a common position on human patenting, issuing a call for the halting of the HGDP. Faced with mounting pressure in Europe and globally, the US government withdrew its claim in November 1993. The US government, however, continues to ignore the call issued by the Guaymi General Congress to repatriate the cell line of the woman. As such, genetic material which may be used
sooner or later, is still being held in the American Type Culture Collection (ATCC) in the USA. In December 1993, after listening to Henry Greely, Law Professor at Stanford University, member of the North American Human Genome Diversity committee, and chair of its ethics sub-committee, discuss the HGDP at their Annual Assembly in Guatemala, the WCIP unanimously resolved to "... categorically reject and condemn the HGDP as it applies to our rights, lives and dignity. The WCIP also vowed to oppose, publicise and monitor the progress of the HGDP.

In January 1994, Miges Baumann of Swiss Aid discovered that the US government had secured two other patent claims to the human cell lines of Indigenous Peoples on the other side of the Atlantic. Patent application WO 93/03759, filed in the name of the US Department of Health and Human Services and the National Institutes of Health, claims ownership of the human T-cell line of a man from Papua New Guinea. This claim originates as a result of blood samples having been taken from 24 Hagahai people from Madang Province, New Guinea, in May, 1989. The second claim, W- 9215325-A, filed in the name of the US Department of Commerce, is for the human T-cell lines of both a 58-year old man from Guadacanal Province in the Solomon Islands and a 40-year old woman from Marovo Lagoon in Western Province in the Solomon Islands. Blood samples were taken from both individuals in August and March 1990. As in the case of the Guaymi woman, the cell lines derived from the blood samples of the Papua New Guinean and the Solomon Islanders, are on deposit at the ATCC in Washington, DC. In January 1994, RAFI met with officials from the Solomon Islands and Papua New Guinea in New York, in an attempt to initiate the denouncing of the patent claims.
In August 1994, in a study commissioned by the United Nations Development Programme (UNDP), RAFI published a report in English and Spanish entitled *Conserving Indigenous Knowledge: Integrating Two Systems of Innovation*. RAFI documented two trends supported under globalisation in the new world economic order - firstly, toward the patenting of living organisms and, secondly, toward biopiracy from the South of indigenous knowledge and biological resources for commercialisation in the North. That intellectual property rights being negotiated at the Uruguay Round of GATT, and enshrined in the Biodiversity Convention, was a new mechanism for the North to utilise to control the resources of the South, was asserted by RAFI in this report. On RAFI's recommendations, regional workshops funded by the UNDP, were held in Latin America, Asia and the Pacific. At these gatherings at which RAFI provided information based on their research, Indigenous Peoples discussed the HGDP.

For the record, a workshop coordinated by the Coordinating Body for Indigenous Peoples' Organizations of the Amazon Basin (COICA), was held in Santa Cruz de la Sierra in Bolivia in September 1994. Thirty-five indigenous leaders from Central and South America were present. The second meeting took place in Tambunan, Sabah, East Malaysia in February 1995. Thirty-five indigenous representatives from 12 Asian countries attended this gathering which was organised by SEARICE and Partners of Community Organisations of Sabah (PACOS). The third meeting which took part in the Pacific was held in April 1995 in Suva, Fiji. At this workshop, coordinated by the Pacific Concerns Resource Centre, 25 indigenous representatives
from 14 Pacific countries were present. At all three meetings, participants stressed the connection between cultural survival, land and self-determination. They perceived the hostility between biodiversity, intellectual property rights and indigenous knowledge. All participants opposed the patenting of life, sending a strong statement to the European Parliament on the eve of its vote on life patenting. The participants at these workshops have designed proposals to defend themselves from exploitation by the HGDP in the short-term. They have issued statements committing themselves to research, education and action to protect their Peoples from biopiracy. They intend to be heard at international discussions, voicing their condemnation of the HGDP. At present, RAFI and its Southern partners are preparing to take the issue of life patenting of Indigenous Peoples to the U.N. International Court of Justice in the Hague, Netherlands. This action will have direct impact on transnationals which see the privatisation of the resources of the South as being essential for the continued accumulation of capital on a world scale. It will affect NAFTA, GATT/WTO, the WB/IMF, the Biodiversity Convention and the World Intellectual Property Organization, among others. Further, it will, perhaps more importantly, mobilise public opinion, encouraging in a visible, open way, political debate of an urgent nature. This action will challenge the model of accumulation being forced through “globalisation” on Indigenous Nations and the South in order to extract surplus and shore up capital. It will raise issues fundamental to the survival of humans and the planet such as justice, peace, equity and the meaning of life itself. The decision to take the patenting of cell lines of Indigenous Peoples to the Hague represents the work and dedication of individuals and organisations spanning the entire world. This is another example of “people-power vs money-power”.
7.8. *Pedagogical and Political Lessons: The Role Of Education*

In Chapter 3, where I take up intellectual property rights as a dominant, racist Western-conceptualised mode of knowing, I argue that ideological constructs of knowledge, designed to be employed within US-dominated "democratic" structures such as GATT/WTO and NAFTA, where they become universalising and totalising with applicability to territories and Peoples, in order to further colonisation and capital accumulation, have to be rejected and replaced. Further, other definitions of knowing and other ways of learning have to be revivified and centralised if a liberatory pedagogy is to emerge to challenge the dominance of the hegemonic aspirations behind globalisation and the colonising intentions of the US with respect to the extension of NAFTA to all of the Americas.

In terms of the subject of this dissertation, it is my position, in concurrence with Shiva (1993) that “private” intellectual property is linked to “multiple levels of dispossession”. At one level, as Shiva contends, intellectual property displays as a governing premise, the destruction of knowledge as a commons. To destroy the knowledge commons, as is discussed in Chapter 4, the holders of intergenerational Indigenous Knowledge have been singled out under the auspices of the Human Genome Diversity Project. While the cups of Indigenous Nations are being drained for the “good of humanity” and capital accumulation, good as it is, this knowledge is being made to disappear on account of the invocation of intellectual property rights, coincidentally, alongside the Nations of Indigenous Peoples who are also being disappeared. The roots of the global economic crisis tie in with the white man’s burden. Having contributed to the destruction and degradation of the earth, the managers of capital now seek to engage in conservation. To do so, in a dramatic manifestation of the contradictions
within the model of capital accumulation as the dominant global paradigm, they resort to biotechnological forays within and across species to produce "better" forms of "life". In so doing, they now carry the earth to the brink of destruction, unleashing genetically engineered organisms in the South, in particular, and "unexplained" diseases in communities, therein. In an offensive launched against Indigenous Nations, they illustrate their deceit, vulgarity, racism and contempt for life as they collect, store and exchange, like ordinary commodities, the Blood of Indigenous Nations and communities of Peoples of the South. That an alternate paradigm of knowledge is needed to save the earth from the engineers of destruction cannot be more urgent.

To contest the hegemonic discourse of the dominant paradigm of development which, in practice, is devastating the ecosystem and all life forms, the curriculum, as a start, must go beyond the adding on of courses such as environmental education toward an inclusion of the perspective of those who have been marginalised and peripheralised. Within the specificity of this thesis, which engages with planetary degradation and the destruction of life forms, Indigenous Knowledge teaching and learning must be incorporated within anti-racist discourse currently being adopted within the curriculum of the schools. The logic of commodity-producing systems premised on permanent growth has resulted in a non-sustainable planet. A critique of the universalising paradigm of capital accumulation is inherently within the nature of this project, which, in questioning the deference accorded to capitalist patriarchy would necessitate analysis into the role of colonisation, racism, sexism, cultural imperialism, indebtedness, technology and militarisation in maintaining the system of unequal exchange. As a necessary frame to guide the embedding of a counter-hegemonic
discourse such as is being proposed within the curriculum, how difference has been constructed historically and how this phenomenon contributes to the differentials of power and privilege between South/North, Indigenous/European, traditional knowledge/Western knowledge, backward/developed, shaman/doctor must be opened up for interrogation. The histories of Indigenous Nations and other communities of colour have been marginalised, ignored or misinterpreted within the curriculum. Often, European students and teachers demonstrate and express tensions toward communities of colour within the school community ranging from amused tolerance to outright racism. With little supportive material within the curriculum to counter the racist constructions of the hegemonic media transnationals, it is not surprising to find that numbers of teachers and students alike derive their views of Indigenous Peoples, Africans, Arabs and Peoples from the South from the images portrayed on the television, in the cinema or in the newspaper. Within the global restructuring currently underway, schools in Ontario have become casualties of varying degrees, either through staff losses, the elimination of entire departments or subjects (such as Modern Studies, E.S.L., Family Studies) and the vesting of the power to make decisions over “what is best for the school” in the hands of the principal. The threat of job loss for educators has led to the return of conservatism in a population which has not been noted for its progressive thinking, in general. Anti-racist education would allow teachers themselves to question power and dominance within teaching and learning. As they find themselves forced to adjust, for example, to the “tool kit” of John Snobelen, Minister of Education in Ontario, Canada, this interrogation of power should lead to a transformative politics of knowledge dissemination which offers the potential to restructure power differentials within the school and beyond. The situation of
threat from which teachers now operate could become one of the strongest forces for change within the school environment as educators realise the urgency of the need to work with students and communities of parents to radicalise, and indeed, to maintain education as a right. As a starting point, true participation of the community must be actively sought in a participatory spirit of respect and openness in a genuine attempt to enable the transformation of a system which has reproduced social inequity for too long. Subscribing to a process such as this makes it mandatory to engage and utilise the voices, teachings and perspectives of those who have been marginalised in the dominant discourse of the academy. This will empower students and teachers alike to reject the destructive universalising paradigm to which the North subscribes. It will open up spaces in the academy for political teaching praxis. This will enrich learning, and, importantly, it will allow for the validation of difference and other ways of knowing counter to the hegemonic European-centred discourse of the schools. This is the start of the construction of a liberatory pedagogy which offers the potential to proceed beyond the confines of the academy to insist on transformation of the paradigm of growth which has contributed to the global economic and environmental crisis. This pedagogy does not subscribe to the marketplace logic imposed on the schools in the contemporary era by a business-oriented Minister of Education in Ontario, for instance. Rather, it seeks to radicalise the social order, institutionalising justice, peace, equality, respect, self-determination, sustainability and duty as the norm. In Chapter 3, I spoke of the role of the North in the restructuring educational system in producing, under the rubric of science and technology, the managers for institutions of learning in the South. This presents anti-racist educators with the opportunity to deconstruct the world of the mindless “global village” imagery, positing the partnerships that
might be afforded between communities of students and universities both South and North in contestation of the global entrenchment of the capitalist model of accumulation. This would truly challenge the globalisation threat which is non-supportive of life and the earth. This kind of critical inquiry is profoundly political offering educators and students alike the opportunity to confront power, exploitation and oppression within the school, in society and on a global scale. This is the only form of education which offers a chance to breathe new life into a fast deteriorating global economic and ecological order. In essence, therefore, anti-racist education is about survival—of Peoples, of the earth and of life as we know it.

In the last and final chapter, I attempt to draw all threads of the discussion in this thesis to a conclusion.
Chapter 8

To Conclude This Paradigm Is to Begin Anew

8.1. Introduction

This study has been challenging because of the very nature of the investigation and, further, because of the attempt to synthesise events within the Americas within the broad ambit of the discussion. As such, I have resorted to a selectivity based on patterns of similarity, attempting to underscore South-South\textsuperscript{114} parallels and South-North comparators, focusing mainly on Canada. The primary purpose of this chapter is to bring the argument presented so far to a coherent conclusion. In doing so, I raise the significance of the study, iterating critical points which have emerged with respect to the research, itself. Further, I highlight the educational implications of this dissertation. Finally, I focus on the limits of the work and, therefore, make suggestions of possible directions for future research.

8.2. Concerns For The South As Raised In The Context Of The Study

This work has looked at the imposition of a new paradigm of development - biotechnology - as it is being imposed on nation-states and communities in the South as the new model of catching-up development. I have shown how this model continues the colonising thrust of developmentalism mediated through institutions such as the World Bank and the International Monetary Fund, which themselves create and rely on a system of maintained indebtedness in the South, to extend the imperial order of the “white man’s burden”. In the contemporary contestation between trade blocs for global hegemony, I have posited that

\textsuperscript{114} Inherently, the South within the North falls within this category.
intellectual property rights which have been introduced within “international” trade agreements under pressure from US transnationals, have been constructed as a weapon to universalise a system of knowing which accelerates and “legalises” the appropriation of the biodiversity of the South by the North. How this weapon is being applied to Indigenous Nations as their DNA is being collected and exchanged has been discussed, particularly in terms of the genocidal possibilities afforded through the US-initiated Human Genome Diversity Project. How the Peoples of the South, in addition, are also the focus of DNA collections, has been demarcated, calling into question expeditions of conservation and survival as undertaken by biopirates and biocolonialists masquerading under the guise of academia. Further, how NAFTA has allowed the US to gain access to the diversity of the Americas and the DNA of Indigenous Nations in its quest for hegemony has been the subject of considerable discussion.

The paradigm of biotechnology as development which is being extended to the Americas is simply another model of capital accumulation relying, in this instance, on the appropriation of the biodiversity and the DNA of Indigenous Nations and other Peoples of the South. Food, medicine and the living cells of human beings are being rapidly colonised and transformed into patentable commodities to further capital accumulation in the North. In the South, as part of this mission, populations and locales become testing grounds and dump sites for toxic wastes, environmental mega-projects and genetic experimentation. This engine of development is cutting a large swathe across the landscape of the South rendering human beings and the earth which sustains them to a living death. In the context of this research project, I have argued that the decimation of particular populations in the South is no accident. The poorest of the poor - in particular, those for whom market economic forces are immaterial
to their existence - are of no consequence to capital for they can never be avid consumers of
developed world exports. Further, their philosophies of life and their perceptions of themselves
as custodians of the earth, their mother, set them apart as dissidents - if not today, then
tomorrow. While their resources are being mined, being highly prized, they themselves are
expendable and a "hindrance" to "progress". In the current attempt to privatise the resources of
the South, therefore, more aggressive action is being directed towards the indigenous
populations of the Americas. I have argued that the Human Genome Diversity Project is part
of the overall plan to bring all territory and resources in the South under the control of
transnationals. As a first step, conquest and, relatedly, decimation of aboriginal Peoples have
been earmarked in order for this plan to proceed. The overseer HUGO Initiative which is
presently taking hair, tissue and blood samples from Indigenous Nations across the world will
provide its researchers, domiciled in the US, with sensitive information databased in military
files, which can be used in genocidal ways. With the possibilities which the Internet and
computer technology afford, the US Military and other army personnel such as "peacekeepers"
in the South, neo-Nazis, the far Right, White Supremacists and the Klu Klux Klan, among
others, can break into data banks to use this information as contracted, or, as they chose. As
has been demonstrated in Canada, with respect to the Somalia inquiry, the military can change,
destroy and misinterpret information at the highest levels to disguise dastardly deeds. As a point
of interest, the Somali community is/was one of the "722 isolates of interest" identified as soon
to become "extinct" by the Human Genome Diversity Project. The Canadian Airborne
consisting of racists with affiliations to White Supremacists and Neo-Nazis was the "elite"
group appointed to "keep the peace" in Somalia. And yet, as the news media tell us, some of
those officers who watched as Shidane Arone was murdered, have been promoted. Others who posed for “trophy” pictures with bound, gagged, bleeding Somali wearing signs stating “I am a thief” around their necks, have never been disciplined. Cpl. A. J. Webb, whose “trophy” picture shows a “smiling soldier...pointing a C-7 rifle at five bound and blindfolded Somali prisoners, huddled on the ground, their legs tied one to the other” is training new recruits for the Canadian government since receiving a promotion to master corporal. Capt. Joe Power, a medical administration officer, whose “trophy” shows him standing behind a bound, blindfolded Somali has now risen to the rank of hospital administrator at the Kingston military base (The Toronto Star, 8 July, 1996: A1, A4). The rewards meted out to the Airborne for their conduct in Somalia raise many questions, but, within the context of this study, the promotions demand clarification of the role of the Canadian military in Somalia. Was there another mission undertaken by the “peacekeepers” in Somalia? The military in the South and the North have increasingly demonstrated violence, callousness and viciousness toward Indigenous Nations and other Peoples who struggle to maintain their land and resources. Whether the military in Somalia is implicated within this all too common pattern ought to be the subject of further investigation.

Certainly, the Canadian government’s involvement in the HGDP raises serious concerns. At the “First International Conference on DNA Sampling” held in Montreal in September, 1996, which was opened by the Canadian Governor General, representatives of Indigenous Nations and members of NGOs who attempted to attend the proceedings were removed from the conference site and barred from re-entry by the RCMP, the Montreal police and the Delta Hotel’s security. The Chair of the proceedings, Bartha Knoppers, “a professional ethicist, a
consultant to UNESCO, and a member of the Ethical, Legal and Social Issues Committee of HUGO” offered that “. . . the absence (sic) of indigenous peoples’ representatives on the list of invited speakers was not an oversight, but a deliberate decision of the organizing committee.”

In defending this position, the “professional ethicist” offered that the decision to exclude indigenous peoples’ representatives was because “. . . the issues surrounding human DNA research are no more relevant to ‘any one population [sic] than another’ and that it was not feasible to invite representatives of all the potentially interested groups and populations.”

Interestingly, while denying access to Peoples who are the targets of DNA sampling, two members of HUGO - Prof. Henry Greely and Prof. Luigi Cavalli-Sforza made several invitations to meet privately with Craig Benjamin of Cultural Survival Canada. Greely, as indicated earlier, has had personal experience of Indigenous Peoples’ rejection and condemnation of the HGDP in Guatemala. On the day that the Conference on DNA opened, a meeting of the scientific and technical advisory committee to the United Nations Convention on Biological Diversity was winding down. Indigenous Peoples from all over the world who attended this meeting to present testimony on genetic sampling “swelled the ranks of the protest outside the doors of the DNA sampling conference.” In Canada, there are questions the government must answer-

The Montreal conference was sponsored by the Canadian Genome Analysis and Technology Programme (CGAT), a program of the Canadian government that funds research into the ethical implications of human DNA research while simultaneously devoting the bulk of its funding to expanding this research. . . . the Montreal conference, while promoted as an open discussion of the “ethical, legal and policy aspects” of human genetic research. . . . was oriented less toward fundamental issues of whether the collection of and experimentation on human genes is morally, socially or politically acceptable, than toward setting guidelines for expanded collection and commercialization. Topics included “DNA sampling and banking, models of
consent and confidentiality, patenting and commercialization, legal status of human genetic material, and genetic epidemiology and diversity” (Cultural Survival Canada, 1996: 5).

8.3. Contestation and Rejection: Political Implications

Taking into account the implications of the purposes which might be served through the information gleaned through HUGO, in conjunction with the fact that 40.5 million aboriginal peoples in the Americas are still struggling to retain or reclaim land and resources appropriated by the state or the wealthy, as a first step toward halting this model of development which is premised on World Bank/ IMF policies and conditionalities in the South and on racism and internal colonisation in the South in the North, the cause of indigenous communities must be taken up by those who would stem this engine of growth. I show in Chapter 4 how communities in the South and Indigenous Nations have had their blood removed and databased to be shared like a commodity amongst the military, universities, pharmaceutical transnationals, Japanese universities, governmental departments and so on. I point out how this information remains disguised and submerged, ensnared within a web of secrecy, despite the ubiquitous communications networks of the “global village”. At the same time, a framework is being carefully laid, using fear and racism, to convert an unsuspecting public into acceptance of the transnational sector’s grand stand to control the Americas in every sphere. In Canada, the Ontario government is preparing to deal with more “criminals”. To cope with these individuals, scientists working at the data bank in Toronto have been boosted in number from 26 to 52. The connection between the military, the HGDP and the disappearing of Indigenous Nations is now

115 The situation is similar whether in Africa, Australia or Asia.
well established in the South. Is the expansion of the DNA data bank in Toronto related in any way to the DNA Sampling Conference in Montreal and the stepping up of collection by HUGO?

An exploding demand by police forces for more DNA testing has prompted the tight-fisted Ontario government to supply $2.2 million to double the capacity of the province’s only testing facility. . . the expansion comes at the same time as the creation of a long-awaited DNA data bank by the federal government. Once final legislative kinks have been worked out, . . the data bank will stock DNA “profiles” of convicted offenders. . . the new funding is also likely to enhance the public and legal credibility of the provincial crime lab(The Globe and Mail, 14 May, 1996, A8).

It is my belief that the “new” diseases - Ebola and AIDS, which, in a familiar, predictable pattern are said to have originated in Africa - could possibly be part of “biotech warfare”. As “concerned” researchers clamour to set up Level 4 laboratories in the forests in the South, I question their motives. There, these researchers will do as they please, experimenting on humans and animals while continuing to plunder the biodiversity and indigenous knowledge of communities. The occurrence of these and other “unexplained” diseases is making it easy for the biotechnology industry to extend its presence and control in the South. I note, as a matter of interest, that the Canadian government has expressed its refusal to commit funds into AIDS research beyond 1988 (The Toronto Star, 8 July 1996: A1, A16). Research in Canada is no longer necessary. The vast majority of people who have been stricken with this disease hails from the South and from communities of colour in the South in the North.116 With an uncanny intelligence of its own, it would seem, AIDS has targeted

116 This does not deny or fail to recognise the devastating impact of AIDS in gay communities, European and otherwise.
specific peoples, genetically and ethnically, on an international scale. I have indicated earlier that entire countries in Africa are being targeted by this scourge. It would be illuminating to be able to uncover which of the dying communities in the South, have had their blood collected by scientists, plasma centres, doctors, the military, universities and pharmaceutical TNCs over the past years. Perhaps the lack of interest in AIDS research in Canada, dominated by research centres controlled by pharmaceutical TNCs, is better assessed within this context. Certainly, the human trials underway in Thailand point to the South as the contemporary experimental centres for drug testing.

Biotech research is aggressive in the creation of new vaccines. There is much to be gained materially from the development of vaccines and diagnostic kits to combat and identify some of the “new” diseases and, indeed, a diseased population in the North, living in a severely compromised environment, is generally supportive of medical efforts to remedy its ill-health. How, why and where these vaccines are tested might never be made known to many in the developed world. In “On the High Reef of the Human Dawn? Biodrugs: The ‘Clean’ Revolution,” in discussing vaccines for Dengue fever, Plague and Rift Valley fever, the writer tells that “interest in these diseases is coming from the military and relates to biological warfare”. Further, as a locale to perfect this technology, the South assumes primary importance. Whether research will be conducted there on AIDS or whether forms of genetic experimentation under the guise of AIDS research will occur, the massive influx of agents of biotechnology into the South is foreboding, recalling past history-

If we are skeptical of who will benefit from the development of new vaccines, history gives us reason. . . Rather than developing vaccines and cures for tropical disease in order to help the poor, the poor have been used as guinea pigs to test vaccines that would eventually help the rich. The ethics
of the original Cholera vaccine tests in India in 1893 and for Plague during an epidemic in Bombay in 1896 have been much debated... From Singapore to India to Argentina, the pharmaceutical industry needs to test its new biodrugs on people before risking the enormous costs of clinical trials and the whole regulatory maze of the US Food and Drug Administration (Fowler et al, 1988: 153).

In 1988, America dedicated $1.5 (US) billion dollars toward its chemical and biological warfare (CBW) program. Recently the Department of Defense allocated funds in excess of a million dollars to Molecular Genetics, a biotech company, to study Rift Valley Fever virus which affects people and cattle in Africa and the Middle East. Although the Biological Weapons Convention went into force in 1975, biological terrorism, not taken up in the document, is the present threat to human existence. The Convention outlaws stockpiling, producing, developing and possessing biological weapons for military or offensive purposes. It does not, however, restrict possession and research and development for ‘prophylactic, protective and other peaceful purposes.’ Taking the view that defense against a particular disease is a reasonably peaceful, protective position, countries argue that they must first develop the disease in order to research the biological means to combat the ailment. Using protection as a pretext, then, countries such as the US and Japan are leading in the biological arms race. Of the many threats which biological warfare presents, one of the most disturbing is its capability to arrest and eliminate agricultural production in the South. In “On Mars and Microbes: Biological Warfare - Plants and People” (Fowler et al, 1988: 201), it is forwarded

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117 A virologist with the Salk Institute, the biggest contractor with the US Army Fort Detrick’s biowarfare program reports that Rift Valley Fever is a “desirable weapon” since it can wipe out cows, sheep, horses, cattle and other animals while giving humans a “flu like illness maybe.” While the fever would incapacitate enemy troops, the aggressors being protected by a vaccine, the disease would be effective because it would be a “natural and anonymous method for dealing a blow to an adversary’s agricultural system.” See “On Mars and Microbes: Biological Warfare- Plants and People”, pp. 194-211.
that "the ultimate target of biological warfare will not be people, but agriculture." I agree with the position of the writer. I also believe that people who pose a problem to the appropriation of the biodiversity of the South will be subjected to biological terrorism. In communities of the South in the North, which resist the attempt to appropriate their land and resources, being "criminals", their DNA will be extracted and databased for genetic manipulation. Structures are in place in the South and in the South in the North to facilitate this.

I stated at the outset that this is a predictive piece, drawing on parallels between countries in the South. I expect, therefore, to see these events occurring, sooner or later, in country after country-

Stage 1. Subsistence farming will be visited by "diseases" which will toll the death knoll for indigenous agriculture.\textsuperscript{118}

Stage 2. The resident transnationals in the South, engaged in land acquisition, drug "hunting" and genetic engineering will offer to provide a "service" to governments in order to ensure that consumers have access to food.

Stage 3. At a later point, and perhaps after the TNCs have received approval to utilise medicinal plants as they see fit, to ward off the unexplained "diseases" which have crippled food production, intellectual property rights will be used as a lever to extract payment for the usage of bioengineered seeds and the purchase of the very medicines appropriated from the South.

\textsuperscript{118} See Development Dialogue 1988:1-2:202 where the deliberate attack against crops is discussed. The writer argues that "an attack against agriculture creates no such suspicions and thus increases the possibility that the operation can be carried out in secrecy."
Stage 4. As more royalty payments leave the country, the economy will become more destabilised and even more dependent on the World Bank for assistance. This situation will be re-enacted in country after country in the South.

Stage 5. The World Bank will intervene at this juncture taking the germplasm of the indebted, starving South into its custody to ensure equitable access to the “common property of humanity”.

Stage 6. The indebted South, decimated by disease and famine will be forced to work for food for the Northern transnationals anxious to “assist” the dispossessed through the creation of employment. Virtual slavery would have been re-institutionalised at this stage in the South.

Stage 7. In the South in the North, social assistance offered to Indigenous Nations would have been completely withdrawn. First Nations Peoples will be offered the opportunity to work for the same transnationals which are attempting at this time to appropriate their resources. Disease and famine will also be prevalent.

Stage 8. There will be increased resistance all over the world as the Peoples attempt to resist this intensified wave of colonisation and enslavement.

Stage 9. The World Bank, with the approval of the United Nations, 119 will move quickly to install law and order globally. The US military will naturally be central in this role.

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119 On 21 June, 1996, on page A3, The Toronto Star informed that the President of the US has announced that he will not support Boutros Boutros-Ghali’s re-election for a second term at the UN since the UN has failed to undertake the reforms which the US has been forcing it to adopt. The US is proposing “new leadership”. It is expected that the US will attempt to force “one of their own” on the UN to formally institutionalise US foreign policy. particularly as this applies to Indigenous Peoples and Peoples of the South.
The Caribbean is presently at Stage 1 as identified above, as it attempts to battle with a pest which is threatening regional agriculture. Countries within the region are not buying agricultural products from each other because of the fear of importing each other’s pests. The Caribbean’s food import bill is currently approaching $1 billion (US). The research conducted at the newly-opened wings of the Department of Agriculture at UWI will, no doubt, assist in moving the Caribbean to Stage 2. Countries such as Haiti, El Salvador, Peru, Mexico, Guatemala and Ecuador have moved into more critical stages already. Clearly, the South is under threat as is evident by the fact that nation-states can no longer feed themselves or trade their agricultural products amongst each other.

Vandana Shiva (1993: 230)\(^{120}\) has argued lucidly that intellectual property rights as carried in the final draft of the GATT agreement allow for the “restructuring of power over food” achieving the long-term goal of the WTO which is to replace the traditional providers of food - women, peasants, farmers, indigenous people, with transnationals. She has also argued that the WTO with the IMF and World Bank will “form the centre of world governance”. Replacing farmers with multinationals secures this ascendancy. World Bank and IMF austerity policies insist on privatisation, the removal of subsidies, free trade and “rationalisation.” Structural adjustment policies have led the deliberate displacement of small farmers in all economies under WB/IMF supervision. This fits well with the policy of GATT/WTO to eliminate any prospect of food self-sufficiency in the South-

\(^{120}\) See Maria Mies and Vandana Shiva. “GATT, Agriculture and Third World Women”. In Ecofeminism, 1993. London: Zed, pp. 231-245.
Even while the South still labours under the burden of older colonization processes, new burdens of recolonization are added. The General Agreement on Tariffs and Trade functions similarly to the old East India Company in demanding freedom for the North’s financial and industrial interests and denying the South’s citizens the freedom of their rights to survival . . . Trade and plunder merge once again, especially in Trade-Related Intellectual Property Rights. The land, forests, rivers, oceans, having all been colonized, it becomes necessary to find new spaces to colonize because capital accumulation would otherwise stop. The only remaining spaces are those within - plants, animals and women’s bodies (Shiva, 1993:275).

There is a run to colonise “new spaces,” as Shiva puts it, and evidence of this desperate dash for empire is mounting. On account of biotechnology, food and beverage exports from the South, where this option still exists, will be reduced and eliminated altogether by synthetic substitutes. Having been limited to monoculture agriculture, economies in the South will be shaken to their very bases resulting in massive upheaval, hunger and an increase in crimes of violence. More governance of a military nature will be proffered by the developed world and funded by the key transnational players in the region to support their interests, and protect their personnel as they conduct their “business as usual.” When the production of indigo in India was replaced in 1897 with a synthetic product by the Badische Aniline Company by Germany, agricultural indigo workers in India, in 1911, found themselves unable to make a living. Numbers of these labourers starved to death (Fowler et al, 1988:1-2:99).

It is obvious that the restoration of peace globally, premised on justice and equity is fundamental to the preservation of life on the earth. For this life to be meaningful, experiments affecting plant life, the ecosystem and the genetic codes of individuals have to cease. The majority stakeholders on the earth - those who do not hold shares in the corporate elite’s
capitalist agenda, have every right to insist on determining how they ought to live and whose interests and philosophies of life should take precedence, in the face of the rapidity with which the planet’s ability to reconstitute itself is being degraded. Alternatives have been proposed to the present economic system under which the indebted South struggles, as it toils to render tribute of an exacting, crippling nature to the Bretton Woods Institutions. In 1989, the UN Economic Commission for Africa provided a platform from which reform of Africa’s economies might proceed. In its African Alternative Framework it called for the promotion of food self-sufficiency, a reduction in the region’s reliance on external financing and trade and increased popular participation in economic planning and decision-making. Bonat and Abdullahi show, however, in “The World Bank, IMF and Nigeria’s Agricultural and Rural Economy” how the World Bank’s ideology of development, together with WB/IMF policies toward agriculture have served to benefit and protect the numerous agribusiness TNCs drawn to Nigeria in increasing numbers, displacing farmers and peasants from the land. The writers point out that the TNCs which have flocked to Nigeria, have carved up and fenced the country, creating “irrelevant technologies” while fostering the “myth” of technology transfer.\(^\text{121}\) Originally offering an 80 percent equity share in Nigerian agriculture ventures to foreign TNCs in 1985, after popular protest, the military leadership reduced this figure to 60 percent in 1986.\(^\text{122}\) Some of the unsettling results of the thrust to privatise agriculture have been land alienation; crises such as the massacre of peasants in Bakolori in 1980; the appropriation by


\(^{122}\) Previous to this influx, little private investment in the Nigerian agricultural sector existed. In 1962, there was 2 percent foreign ownership; in 1970, there was 1.1 percent; in 1975 there was 0.5 percent. The privatization of agriculture, therefore, displays a very definite linkage to World Bank/IMF ideology and conditionalities.
food transnationals of fruit production and processing, poultry farming, maize and vegetable production and livestock engineering; the rise of new pests and plant diseases; the reliance of patent-holding companies such as Pfizer, Babcock, Hyline, Upjohn and Topfoods on hybrid seeds leading to the implementation of “genetic imperialism”; the marginalisation of subsistence agriculture; the displacement of peasants - (in the River Basin Development Areas, half a million people were rendered unsettled and unemployed - as a result of the creation of large scale dams); ecological disasters (Onimode, 1989: 168-169).

I use the case of Nigeria to draw attention to the documented disintegration of the social, economic and political structures in a region subjected to the harsh medicine of the IMF. Food production will soon be entirely controlled by the TNCs in Nigeria where they have already established joint ventures in the areas of management consultancy, agricultural machinery, animal feed manufacture and the sale of cold storage, among others. Nigerian oil has also been the focus of attention of the agri-giants. Of concern to governments of the South championing at the bit to join NAFTA, should be the crippling ongoing privatisation of the Nigerian state to serve the needs of international capital; the near-enslavement of displaced/retrenched labour and the elimination of any possibility of food security in that country. Bonat and Abdullahi provide a chilling picture of tomorrow in the South where history seems determined to repeat itself. This is the same strategy of subjugation to which Indigenous Peoples and communities of colour all over the world continue to be subjected, whether in Guatemala, Chiapas, Peru, Brazil, Honduras, El Salvador, Nicaragua, Suriname, Guyana and Canada, among numerous others-
... many foreign and local companies are acquiring large tracts of land for commercial farming. Some of these are so extensive that whole villages are fenced in and the inhabitants turned into wage labourers on their lands... lands taken over from the peasants are irrigated and sold back or rented to those who can purchase or hire them, at prices generally higher than the peasants can afford (Onimode, 1989: 167).

In May 1992, the Ecumenical Coalition for Economic Justice reported that the WTO would emerge to assume the role of a "powerful global police officer assigned to enforce neoliberal economic policies" together with the IMF and the World Bank.123 As the article warned, the principle of "national treatment" to be extended to imports, exports, investments and services, forces member countries of the WTO (formerly GATT) to give foreign investors and service providers the same treatment as that accorded to domestic firms. This principle limits the ability of governments to make decisions which serve the interests of their citizens. In August 1995, the Association of Caribbean States (ACS), a Caribbean basin alliance linking 25 nations which have in common a Caribbean shore, came into formal existence expressly to facilitate trade, cross-border investments and economic cooperation. At the culmination of a two-day inauguration summit in Port-of-Spain, Trinidad, Caribbean leaders hailed the Association as the fulfillment of a dream representing an era of Caribbean Cooperation "excluding no people and no nation"124. The ACS represents a trade bloc of 200 million people.125 It is, theoretically, one of the world's largest free trade zones, representing a combined gross domestic product of $500 billion. Both Mexico and Cuba are members of the

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125 31 countries and dependencies of the region constitute the ACS.
ACS. Cuba is also a prominent founding member of the new Caribbean trade bloc. The ACS intends itself as a viable trading bloc at a stage in history when the US is jockeying for world ascendancy. At present, the Americans control 21.2 percent of global economic trade; the Japanese control 8.4 percent; Germany accounts for 5 percent; France, Italy and Britain control 3.6, 3.4 and 3.3 percent, respectively; Canada’s share of global trade is 1.9 percent.¹²⁶ The construction of NAFTA has orchestrated and prepared the stage for US economic hegemony. Using access to its markets as leverage, the US has, through the Enterprise for the Americas Initiative (EAI), restructured Caribbean and Latin American economies so as to consolidate and guarantee the permanence of the policies of economic reform imposed under IMF and World Bank structural adjustment programs. Further, access to NAFTA makes it mandatory, under the EAI, for Caribbean and Latin American states to implement changes to domestic investment and patent laws, according to US specification. The May 1992 Economic Justice Report (Volume 111, No. 2: 3) reports that NAFTA supersedes GATT/WTO. The oppressive nature of this agreement is such that it outlaws ¹²⁷ “a temporary moratorium on interest payments by a country unable to cope with its onerous burden of external debt.” Highly supportive of this condition is the statement which overtly expresses the US commitment to extend the permanency of WB/IMF governance in the South as demonstrated through the “accession clause” of NAFTA. This allows that Caribbean and Latin American countries must demonstrate good standing with the IMF, the World Bank and other creditors by adhering to structural


¹²⁷ Outlaws are hunted by the police or bounty-hunters and incarcerated. Is this the fate awaiting defaulters? Will debt-equity swaps allow for the appropriation of the patrimony of the Peoples of the South? The US government, consistently breaking international law, remains immune to international sanctions and incarceration.
adjustment programs as a pre-requisite to being integrated into a Pan-American trade zone. Taken together, therefore, these two precedents make it illegal for countries to withhold debt payments. They also restructure the terms of trade to make the corporate climate even more favourable for international capital while restricting the sphere of government control in sovereign states. Of paramount importance to the South should be the fact that NAFTA which presently supersedes GATT/WTO in its restrictiveness, takes precedence over all other agreements signed by members. This includes the well-intentioned ACS undertaking. The ACS, however, has the potential to resist the US imperialist agenda because, numerically, politically and morally, there is a tremendous will in the region to determine indigenous development and reclaim sovereignty, from the perspective of the people, themselves. The Assembly of Caribbean People (ACP) which met in Trinidad in August 1994 is evidence of this groundswell movement\(^\text{128}\). The ACS and ACP, as a cartel, together with Asian, Latin American and African debtor countries must strategically and as one, repudiate the debt. Then an alternative paradigm which puts people, self-determination and the sustainability of the earth in the forefront must be adopted.

\(^{128}\) See Background Paper: An Assembly of Caribbean People.
8.4. Food Security - Restrictions for the Caribbean

In August 1994, the alarm was sounded by Edward Evans and Hayden Blades of the Caribbean Agricultural Research and Development Institute (CARDI) that the food security of the Caribbean would be threatened on admission of the region to the NAFTA bloc. Evans and Blades pointed out that the NAFTA/GATT trade frameworks which force developed world countries to reduce the support extended to the agricultural sector by over twenty percent over a six-year term would have marginal impact on countries in the North where, in some cases, funds in excess of $400 billion a year are allocated toward agricultural production. By contrast, as a stipulation for admission to NAFTA, Caribbean countries have been forced under structural adjustment programs to reduce tariffs from thirty-five to twenty percent. Being forced to also remove quantitative trade restrictions and licenses, the Caribbean region has been flooded with cheap chicken parts and milk solids, subjected to irradiation and taken from cows inoculated with bovine growth hormone, for the former and the latter. In light of the fact that agriculture is the primary earner of foreign exchange for some Caribbean countries and, taking into consideration that, for others, it ranks as one of the top three earners, Evans and Blades have predicted that the disruption of this sector and the resultant displacement of labour will create devastating consequences. In their view, as a result of incorporation into NAFTA, and because of the terms of adjustment imposed through the WB/IMF, "... import penetration could seriously disrupt the political and social stability the region currently enjoys." 129

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Evans and Blades are correct in their assessment which predicts massive upheaval, instability and pauperisation in the Caribbean. They are correct in predicting the demise of Caribbean agriculture. Although not members of NAFTA, numerous countries in Africa under structural adjustment programs currently exhibit the crippling loss of food security and the rapid transnationalisation of agriculture by foreign agri-giants. Where they are wrong however, is in suggesting that developed economies will not suffer the loss of food production. In fact, data already show that the changes transforming the Canadian agricultural sector are harsh, irreversible and absolute. To the vast majority of the population, the take-over of agriculture by US transnational food producers is invisible. These changes are being effected on account of NAFTA. Of the two economies, Canada is the loser; the US is the winner. What, then, does this portend for dependent economies of the South? The experience of oil-rich Nigeria is telling. Its citizens can no longer afford to pay for electricity. The transnationals, however, are flourishing. Meanwhile, in the South, famine and disease are rampant.

8.5. Hungry For Education: Towards A Pedagogy Of Resistance

The WB/IMF restructured educational system of the South is finding its counterpart in the North. The argument of relevance and competition in the areas of science and technology is being used to detract from how the new structures set in place in the North at the elementary, secondary and tertiary levels buttress the paradigm of biotechnology as development, as the global economy is restructuring to meet the needs of capital. In the “rationalisation” which has taken place, those hungry to learn, to think and to analyse are to be set aside making it secure for forms of learning tied into the reproduction of capital in the areas of science, technology and communications to proliferate. How education in the North fits in with the rhetoric of
“globalisation” in the “new” world economic order is significant. The restructured state educational apparatus is reasserting itself, compelled by its transnational funders, as an important tool to produce the managers of the new paradigm of development linked to biotechnology. Education in the North has taken on, under the cloak of learning, an imperial mission, with which colonising and settler powers have historically been associated. Those who will manage the South are being schooled within a model of science which has links to genetics and eugenics.

Within the paradigm of biotechnology, science gains particular ascendancy. To further a particular conceptualisation of science linked to Darwinism, eugenics and the mythology of the limited capabilities of the South, those in charge of biology education in the US have implemented specific measures to ensure that their project is carried forward, beginning with the minds of children in schools. Joseph McInerney, director of the Biological Sciences Curriculum Study (BSCS), who has directed the development of three BSCS instructional modules on the Human Genome Diversity Project as well as programs on immunology, evolution and genetic technology has stated that,

... Although the modern synthesis of evolution clearly had incorporated genetical perspectives by 1953, the Watson-Crick model of DNA stimulated new thinking about the chemical nature of organic change through time. ... These new insights reaffirm the need to integrate genetical and evolutionary thinking in biology education and the need to embed genetics education in central organizing concepts. ... (McInerney, 1995: 787).

Speaking specifically of the Human Genome Diversity Project, considered to hold the “prospect of making genetics the science and medicine of the future,” McInerney has worked to interpret the “good” of the HGDP to the public and students so that the possibility of this
project might be realised. In elaborating on this vision, the writer has elaborated on the need for partnerships between medicine and education so that genetics might be the medicine of the future. He has proposed that some of the researchers involved in the HGDP take their investigations into the classrooms around the USA. How science is being restructured to serve bioprospecting and biocolonisation through the curricular of the schools is troubling. Further, how technology being thrust on the educational system is ostensibly to facilitate the working of the HGDP is foreboding. This individual tells unproblematically that,

... the Human Genome Project... is driven by a wide range of technologies, from those employed in mapping and sequencing to those central to the creation and maintenance of international genomic databases. . . The technology-dependent nature of the Human Genome Project and of genetic medicine highlights a more recent challenge to US science education: the need to include technology as a focus of serious study. . . (McInerney, 1995: 789).

The globalisation rationale being credited for the restructured educational system obfuscates the role of the school in reproducing capital. It submerges the underlying reasons for the ascendancy in science and technology, and the accompanying dismissal of disciplines and foci such as humanities, the arts, women’s studies, “Third World” studies and Indigenous Education. Areas of study in the university, such as anthropology, medicine and psychology which have been deconstructed by feminist and Marxist scholars are now being renewed within the ambit of genetics. These are some of the new “handmaidens” of empire-construction.

More than ever before, within an environment hostile to the other, a new curriculum offering tools with which to deconstruct the model being implemented must be made available to students. The science and technology model sustains the justification of capital to dominate
and exploit based on notions of inferior/superior; South/North; environmentally-destructive/environmentally-green, primitive/evolving and us/them. The "science" of genetics is calculated by strategists as McInerney to gain ascendency at precisely the same time that the resources of the South are being appropriated by the North. Logic tells that the lesson to be taught to young minds in this regard is that the sacrifice of Indigenous Nations and the Peoples of the South is necessary for evolution of the "fittest" to continue.

Education in the North is reconstituting itself to serve the forces of capital even more directly. This reconfiguration is occurring simultaneously in European centres. Urging educators in the age of disinformation and untruth to perform the "revolutionary act" of telling it like it is to communities and students, "UK Commentary: Sign of the Times" asserts that,

There are a number of fronts we have got to fight on. . . schools, especially with the imposition of the National Curriculum, refrain from developing the critical faculties of students and focus instead on the development of the technical skills which will allow them to get jobs and make money. . . the National Curriculum . . . is not about developing the critical skills with which you can question and oppose the system, the newspapers or the TV messages and do your own thinking. Instead it gives you pre-digested, pre-packaged thought and history. The 'black studies', 'women's studies', 'Third World' studies and all the possibly insurrectionary and insurgent studies have all been taken out of the National Curriculum(Sivanandan, 1992: 65).

The growth of knowledge and spread of ignorance in the North of which Vandana Shiva (1993) speaks is matched by the suppression of analysis and debate at institutions of learning in the South through WB/IMF supervised cuts to education. With respect to Africa, the World Bank has made the statement that "the continent is unable to prepare itself to take advantage of the expanding frontiers of knowledge". The South is now being forced to become
passive consumers of knowledge produced in the North in a dramatic return to unprecedented intellectual recolonisation. Having forced nation-states to reduce funding to education, the WB/IMF now contends that education in the South is of poor quality. This then justifies their argument that “unproductive” departments such as social sciences and humanities should be eliminated. They then create a space for transnational pharmaceuticals to fill, in the funding of technology, staff and buildings supervised by Northern managers schooled in the contemporary period to accept biotechnology as the ascendant development paradigm.

Contestation of the WB/IMF plan for education in the South provides a good starting place to assess how resistance in the educational apparatus in the North might proceed. Although the pattern of events in economies in the Americas is as distressing as in Africa, the Northern control of resources and access to publishing has made it almost impossible once more for those in the South to write about themselves. I turn therefore, to available material on Africa, to make my point. The Committee for Academic Freedom in Africa asserts that the African university campus is the battleground for defining what constitutes knowledge, testing the World Bank’s ability to impose its agenda on a sophisticated social group. African students, the Committee tells, have not accepted the status assigned them by the World Bank in the production of knowledge. In their reliance on the state to enforce their conditionalities, neither the World Bank nor the IMF has “begrudged lavish spending for crowd-control gear or for other imports functional to the modernisation of repression”. Thus, when governments exert force against protesting students, the WB/IMF remains silent. The bloodshed which the Bretton Woods institutions are supporting in Africa, where a steep rise in defense spending in the 1980s
has been supported with more loans in an environment of draconian cuts, is not coincidental. This action reveals its own brand of perverse logic-

Another crucial reason for the World Bank’s hostility to African universities is that students and faculty members have often been the sharpest critics of World Bank schemes and opponents of their implementation. The World Bank paints this opposition as a self-serving effort by an elite to preserve its privileged position in the midst of a desperate social crisis. . . Student and faculty unions are frequently the only organised oppositional national forces capable of articulating general social demands and criticism. . . for this very reason, the World Bank does not see a future in investing in university students and teachers in Africa. . . (Committee For Academic Freedom In Africa, 1992: 58).

This is the same type of reasoning which is being applied in the North to teachers, disciplines other than science and technology and university professors. John Snobelen’s plan to "create a crisis" in education in Ontario to justify World Bank-inspired structural adjustment cuts to schools, colleges and universities is eerie in its evocation of what has occurred in the South. Institutions of learning across the globe are being brought into a closer hierarchical relationship under more oppressive terms whereby personnel in faculties in the university in the North such as medicine, agriculture, biology, pharmacy and biotechnology are being groomed to facilitate the plunder of the resources of the South through penetration at the level of the underfunded university. Owning the means of material production, the transnationals are controlling knowledge production North and South, demonstrating the extent of their global reach. Both in the South and the North, they have risen to the occasion, funding the educational sector which has been the casualty of government cuts. The coordinated nature of TNC global appropriation of education to serve the needs of capital makes it incumbent that a similar international strategy be embarked upon to resist this affront.
To challenge the legitimacy of the changes being forced on constructs of knowledge by globalisation, as a start, anti-racism education must be included in the schools within the restructured curriculum. As Dei (1996) points out, the crisis of knowledge brought about by globalisation is evidence of “the urgent need for a new approach to education that responds appropriately to the challenge of difference and diversity in communities internationally”. In the South, educational “reforms” have taken on the mission of intellectual recolonisation in the interests of corporate capital. The challenges to be posed in this arena might begin to be addressed by collaborative projects between Faculties of Education in the South and the North with the latter making their resources available to be utilised in the South. University professors who have specialised in “African Studies”, “Third World” Studies, “Women and Development” and other areas where the South has constituted the subject and structure on which careers have been built and expertise has been created are morally obligated to find ways to work directly with their colleagues in the South in what can only be a more professionally rewarding experience. Those who have crusaded for the cause of equity, justice and peace in theory now have a chance to stand up and be counted in the hammering out, between South and North, of a pedagogy of transformation. Although the cited disciplines are themselves under threat in the North, perhaps the technology of “virtual university”\textsuperscript{130} affords some opportunity for the exploration of ways to reach a wide audience in the South. Inherent in this would be the possibility for the North to take the opportunity to learn of Indigenous constructs

\textsuperscript{130} The Toronto Star reported on 15 June, 1996 on page E1 that The TeleLearning Network of Centres of Excellence, employing 130 academic researchers across Canada had received $13.7 million (Can.) from the federal government to develop high-tech teaching aids and virtual universities on the Internet. Linda Harasim, communications professor at Simon Fraser University, who is in charge of this project, states that virtual university on the Internet will enable “all citizens, no matter where they live... to plug in and get a university degree through teleeducation”. Harasim is of the opinion that this transformation in educational practise will “increase access to education”, allowing Canada to “stay ahead globally in the information age”.
of knowledge linked back to community development as opposed to individual self-achievement. This would represent a vast achievement in terms of the recovery of communities as people whose purpose for being goes beyond capital and competition. It goes without saying that this is a political project, the commitment to which allows for self-assessment as to how best one might contribute to stem the path of development on which the world is being forced. I see the NGO community as being an important collaborator in the realisation of such a project on account of their lived experiences with Peoples of the South. Were communities of people at the grassroots level to be linked into communications networks with students at the university in the South and the North and with Indigenous Nations across the world a politics of transformational educational praxis within the globe is a distinct possibility. The residents of Chiapas have effectively utilised technology to collaborate with supporters in the North and the South in their struggles. Using virtual university to work along these lines would be liberatory and revolutionary.

The Minister of Education in Ontario, John Snobelen, has placed extraordinary power in the hands of school principals, allowing them to restructure schools according to what they consider to be in the best interests of students. Departments in the arts and humanities, English as a Second Language and other programs considered to be catering to the needs of “interest groups” have been reduced or eliminated overnight. To expect that anti-racist education will find a nurturing environment in schools within which to bloom is unrealistic. Without pressure from parents and community organisations, schools will argue that the rationalisation in which they are engaged does not allow space for more with less. I suggest again that technology be utilised to further this cause. All schools in Ontario have been provided with free access to the
Internet for a year courtesy of Bill Gates. This provides a space within which progressive educators might negotiate. Test projects similar to the joint Ryerson University-Vaughan Road Collegiate Institute program where students in high school take a course taught by a Ryerson professor and receive a university credit can be explored, using the Internet. I visualise a collaborative project in anti-racist education being constructed by Indigenous, African, Asian, feminist, gay, lesbian and differently abled educators and offered at a carefully selected high school via the telecommunications network. If the schools do not have to pay personnel, they tend to be open to “innovative” programs which will allow them to create a name for themselves as public education is increasingly accused of being sub-standard. The opportunity exists to introduce change in the curriculum, despite the odds being introduced almost daily against progressive incursions. With the support of parents, these moments must be seized.

8.6. Limitations Of The Thesis

This work has addressed the situation of the Peoples of the Americas in a very general way, on account of the currents which have been subsumed within the title. Regrettably, I have not been able to provide in-depth accounts of the reports of Indigenous Nations with respect to how their lives continue to be transformed and threatened. These are limitations of the project. Alternately, however, graphic accounts exist to support the position which I have forwarded of economies of the South. Overall, as in Asia and Africa, the lives of individuals increasingly subjected to the transnationalisation of capital through NAFTA, the EAI and SAPs have become tenuous; communally-held lands of Indigenous Nations are being annexed by the militarised transnational sector; food security is no longer a possibility; water is a scarce resource; genetic mutations and “unexplained” diseases stalk the South; growing numbers of
homeless children are being recruited into child prostitute gangs to serve the expatriate experts returning to formerly colonised territories in droves to service the paraphernalia of science and technology purchased with new WB/IMF loans; the biodiversity of the Americas is being appropriated and patented by transnational pharmaceuticals; Blood of Indigenous Nations and communities of Peoples of the South is being collected and exchanged for experimental purposes. It is the deep similarity embedded within the general nature of these findings, however, which gives strength to this work, for, this approach reveals that the pattern of events in country after country is the same. As in Africa and Asia, biotechnology is the new paradigm of development. Through trade treaties and the weapon of intellectual property rights, biotechnology is the neo-colonial mission par excellence. In its premise of “conservation”, it re-enacts the missionising quest of the “white man’s burden”, attempting to save the “primitives” from themselves. The decimation witnessed in Nations of Indigenous Peoples and in communities of the South, horrifyingly similar, speaks to a project of genocide constructed on a racist paradigm of development spearheaded by the US government, supported by states such as Canada and implemented by the WB/IMF, governmental departments, the US military and peacekeeping forces, universities and transnationals. The general nature of these findings are consistent with what is occurring in the South, as a whole. It will perhaps be observed that this work ought to have focused more attention on the Human Genome Diversity Project and that I should have been able to provide primary information about the collection of DNA in Indigenous Nations. As an outsider, however, I see my role as being guided by the denunciation which has been placed on record by communities who have been researched for more than 500 years for the “good of humanity”. There is a growing body of writing from Indigenous
Peoples expressing their repugnance and condemnation of the HGDP. My role has been to provide a space herein for these voices and this position to extend in as many directions and to as many locales as is possible within the ambit of this thesis.

8.7. Future Research

Many of the currents raised within the ambit of the thesis topic deserve to be the focus of ongoing investigation to truly monitor and disseminate what is occurring in communities in the South and in Indigenous Nations both in the South, and in the South in the North. The area most urgently in need of scrutiny and interrogation, because of the threat it poses to the lives of Peoples, is the Human Genome Diversity Project. In the Caribbean region, the Caribs of St. Vincent and Dominica have been under the attention of bioprospectors for some time. A mining team recently visited Dominica, renowned for its lush mountains and pure waterfalls, to explore the possibility of exploration in the area in which 10,000 Caribs live. How events unfold within Dominica and St. Vincent, in keeping with the pattern I suggest is being revealed in countries in the South, is an area which should be monitored. I am also desirous of probing into the situation in Guyana in which Amerindians’ landbases are currently being surveyed by the World Bank in order to establish, for so the story goes, the boundaries of these Nations’ territoriality. What is occurring in Guyana where 60,000 Amerindians reside as the Smithsonian and WWF conserve vast tracts of land for the “good of humanity”, where the Royal Ontario Museum is collecting soil and insect samples and where the Royal Bank of Canada has issued new private sector loans for the construction of new buildings liked to these explorations, is significant with respect to the threat these actions constitute to the survival, sovereignty and
self-determination of First Peoples. I see more than a research role in these situations. To be able to make visible the connections between transnationalisation in the Americas and the destruction of Peoples would equate with being of service. These are the initial areas in which I would like to extend this preliminary work, in order to engage with the NAFTA agenda for the Caribbean region.

8.8. Closing Commentary

Evidently the circle of time has brought us back to a world of conquest, enslavement, colonisation and genocide. This is the new world order of globalisation in which the agents of US policy - the World Bank and the IMF - in conjunction with agreements such as NAFTA, GATT/WTO, the EAI and the Human Genome Diversity Project are working together to assure the ascendancy of the USA as an imperial power in competition with the EU and Japan. The scientific and militaristic establishments, with the control they exert over life, through “creation”, manipulation, mutation and liquidation, on the basis of biotechnological capabilities, are central to the bid for power exerted by the USA. The concept of intellectual property rights, foreign to the Peoples of the majority of the world, supports the work of science, technology and the military, enabling these establishments to carry out the mandate of the government of the USA, ably supported through the work of research centres and institutions in Canada. This mandate is to subdue the South to the point where the remaining spaces of which Shiva speaks might be colonised and appropriated. Thus it is that disease and famine are being “created” by the fathers of science in all countries of the South and in communities of the South in the North. The governance of which Vandana Shiva speaks looms large. The South is leading in
the initiative to forestall this tide of events with stellar resistance efforts such as have been outlined in Chapter 7. Both North and South have to redouble their efforts, however, in this enterprise which, if left to proceed as intended, will result in the destruction of the entire earth.

We stand on high moral ground. As Fidel Castro pointedly declared at the Harlem Abyssinian Church in 1995, this world is ours too. If we intend to save this earth for future generations, we must dedicate ourselves toward the cause of Indigenous Nations, for the fate of our indigenous sisters and brothers is the fate of the entire South. This has been confirmed graphically by the data from RAFI in the March/April, 1996, *Communique*. Let us take guidance from those whose work has been to protect the earth so that the place of future generations might be assured. From where we stand in this moment of history, it is evident that there is no time to waste-

The tools for fighting back against any threat begin, it is said, with a precise understanding of the danger and, from there, the best means by which to counter it. In this instance, the situation is simple enough: we are all-Indian and non-Indian alike - finally in the same boat. At last there is no more room for non-Indians to maneuver, to evade, to find more "significant" issues with which to preoccupy themselves. Either the saving of indigenous lives becomes a matter of preeminent concern, or no lives will be saved. Either Native North America will be liberated, or liberation will be foreclosed for everyone, once and for all. The fight will either be waged on Indian land, for Indian lives, or it will be lost before it really begins. We must take our stand, together. And we are all running out of time in which to finally come to grips with this fact (Churchill, 1992: 308).
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