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**BRAIN GAMES, ECOLOGICAL WARFARE AND TECHNO-COOLIES:
How Industrial Residue Informs the Information Society**

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Abstract: Examines how the current wave of brain drain is rooted in globalization suggests that culpability is mutual between developing countries and the developed world.

1. Introduction

As globalization permeates nearly every aspect of human life in 2007, the “global village” anticipated by Marshall McLuhan in 1967 is increasingly upon us. This sweeping paradigm has been promulgated by the spread of the Knowledge Age, also commonly referred to as the Information Revolution. The term “revolution” bespeaks radical change that deposes prior conventions; in so doing, revolution is tied to power. One of the most powerful revolutions of this millennium was the Industrial one that began during the middle of the eighteenth century and influenced the next 150 years of world history.

“The Industrial Revolution was not a sudden, violent thing, but it was the kind of revolution you could actually see.”¹ Indeed, the Industrial Revolution was evident not only in the spread of modern technology and labor-saving devices but also in its impact on the economies it stimulated and the powers it sustained. Key among them was the rise of capitalism as both an economic and a political system. Under industrial era-capitalism, labor and natural resources served as the means of production; in the information age, knowledge is the most basic economic resource.

During the Industrial Revolution, Western powers extracted the means of production from what was then diminutively referred to as the Third World. In what follows, evidence is reported on the extent to which those same patterns may be playing out in the current revolution albeit veiled under the guise of globalization’s more altruistic connotations. Unquestionably, “the informational, global economy is indeed a highly politicized economy.”² However, while forays into social or political aspects may be difficult to avoid, this examination is not intended to discuss such ramifications, but rather, seeks to confine itself to more isolated economic issues framed within the context of global capitalism.

2. Territorial Imperatives: Industrial Tools of Exploitation

During the Industrial Revolution, Western Europe and the United States seized the natural resources and labor they needed to produce their wealth from the lesser developed nations of the African and Asian continents. This plunder was carried out in a variety of means, the most notable including slavery and colonialism. In the United States, the slave trade that had begun in the seventeenth century was not outlawed until well into the nineteenth century in the years following U.S. president Abraham Lincoln’s Emancipation Proclamation.

¹Galbraith, p. 27

² Castells, p. 90

In addition to using bondage, the industrial powers supplanted indigenous authority in geographical regions that yielded the forms of nature critical to industrial production such as minerals and metals. Often the First World was merely attempting to share salvation with the “savages,” but eventually, “the higher purpose of colonialism was no longer religion.... The British were in India to trade and make money.”³ And so was the rest of the developed world.

The legacy created by the manner in which the economic drive of the Western world was perpetrated on the developing nations shapes and informs the current division between the world’s haves and have nots. Though particular countries may have risen or fallen on the scale, the term “First World,” with the relatively new addition of Japan, still refers to the Western or as some, like Kenyan scholar Ali Mazrui prefer, the Northern nations. This has placed an enormous burden upon the world, as the developing one’s infrastructure continues to lag far behind what is needed to make these nations economic powers in their own right. Furthermore, “the developed countries also have a tremendous stake in the Third World [because] unless there is rapid development there—both economic and social—the developed countries will be inundated by a human flood of Third World immigrants far beyond their economic, social, or cultural capacity to absorb.”⁴ Such an outcome certainly changes the parameters of global responsibility, causing an immense drain on the accumulated wealth of the developed world.

3. The Knowledge Age: Dissemination of Information and Technology

Developing nations already suffer from insufficient progress in building and maintaining their infrastructures as well as a plethora of difficulties ranging from political instability and health epidemics to illiteracy and extreme poverty; each nation has its own unique factors with which to contend. Meanwhile, “value is now created by ‘productivity’ and ‘innovation,’ both applications of knowledge to work. The leading social groups of the knowledge society will be ‘knowledge workers’ ... who know how to allocate knowledge to productive use, just as the capitalists knew how to allocate capital to productive use.”⁵ This puts the developing nations, already unable to capitalize on the gains of industrialization, at a distinct disadvantage in the current revolution and its opportunity for redistribution of power.

Besides superior infrastructure conditions, the advantage of the developed world—which still needs a manufacturing base—is that menial work can be diverted to the lesser developed world and any true expertise found there, can be plucked. While “some of the traffic in expertise across Third World frontiers is caused by political instability and economic problems at home,”⁶ it is true that “colonial conditions encourage[d] the

³Galbraith, p. 124

⁴Drucker, p. 14

⁵Drucker, p. 8

⁶ Mazrui, p. 174

importation of Western equipment without transfer of Western technology [or know-how].”⁷ In other words, the invitation “to be incorporated into the modern technological age” and the current global system is extended to all, but the best seats in the house may have been reserved.

Rather than being threatened by potential competition from developing countries as would have been the case during the industrial era, the climate of globalization has created interdependence among all nations. However, interdependence is not synonymous with equality—even in an era epitomized by the World Trade Organization’s, “one nation-one vote” policy. The developed world, though optimally seeking trade partners, stands to gain economically even from the poor position of the developing world. “One major American gain from trade with India and with much of the developing world comes from vast projects to rebuild crumbling infrastructure and modernize antiquated telecommunications systems.”⁸ Indeed, the developed world seems to have the Midas touch. As recently as ten years ago, whereas “the industrialized world—the United States, Western Europe and Japan—account[ed] for 90 percent of the information market, the rest of the world ha[d] 10 percent.”⁹

3.1. Case Study #1: Zimbabwe

When Robert Mugabe assumed the leadership of Zimbabwe in 1980, education and defense were touted as the nation’s priorities, but within a short period of time, a series of misguided political and economic strategies initiated an infrastructural deterioration of such scale that “Africa’s breadbasket” has become a basket case. A common thread that ties these detrimental policies together is the lack of sustained investment—the kind of lack sometimes ascribed to the colonial plunderers of yore.

Brain drain in Zimbabwe is largely a function of poverty coupled with repression. “Indeed, Zimbabwe is going through its worst economic difficulties in history, and there is no doubt that the brain drain is compounding the situation. The exodus is stalling the country’s development because of the huge deficit in manpower that retards economic development.”¹⁰ Though health and education are among the sectors most affected by this protracted mass exodus, Zimbabwe is losing people of all walks of life, from teachers to policemen; this loss translates to a loss of foreign currency as well. Though brain drain often bears at least some offsetting benefits, such as remittances, i.e. money sent home by foreign workers, the Zimbabwean situation has affected the country’s Diaspora rate to the

⁷ Mazrui, p. 165

⁸ Davis and Wessel, p. 234

⁹ Capdevila, Gustavo. “Development: Information Haves and Have Nots.” Inter Press Service. January 11, 1996.

¹⁰ Motsi, Tandayi. “Brain Drain Strangling Economic Development.” Originally published in *The Herald* (Zimbabwe). July 14, 2003. Reposted on Global Policy Forum. <http://www.globalpolicy.org/soecon/develop/2003/0714brain.htm>

degree that foreign currency is almost as poorly valued as the domestic currency just in the sense that often there's simply nothing to buy, whether one has money or not.

In April of 2007, Reserve Bank of Zimbabwe Governor Gideon Gono announced a 98 percent devaluation of the national currency for exporting businesses “but remained adamant” he was not devaluing the Zimbabwe dollar across the board.¹¹ Instead, while official exchange rate would remain 250 Zimbabwe dollars to US\$1, Gono announced a rate of Z\$15,000 for some exporters, international organizations, gold miners, tobacco farmer—and remittances from expatriates. Meanwhile, the inflation rate reached an annual rate of 2,200 percent, in what the *BBC News* termed “the highest rate in the world.”¹² With the rate of inflation at absolutely absurd proportions, the catastrophe that has befallen Zimbabwe over the past couple decades has made it such that money and other goods sent “home” often never reach the intended destinations and/or recipients. These monies are needed for staples as well as for purchases such as medical drugs. Meanwhile those left behind are saddled with an enormous workload that cannot be filled by the remaining populace's skills or diminishing numbers.

In essence, the State now trains individuals—as doctors, lawyers, and engineers as an example—for the benefit of other nations. Mugabe has publicly accused Britain of pilfering Zimbabwe's store of medical personnel and pharmacists, claiming, “We have created the environment that allows that upliftment of nurses. That's why even Britain comes in the dead of the night to steal our people.”¹³ Meanwhile, with public health jeopardized by this loss of skilled medical practitioners, Gono was quoted as describing the nation as suffering from “economic HIV,”¹⁴ an ironic coinage given the march of HIV and AIDS throughout the continent and the fact that many of those trained to deal with the scourge have fled.

In 2003, a study conducted by the Scientific and Industrial Research and Development Centre (SIRDC)—whose mission statement is “to provide Zimbabwe and the region with technological solutions for sustainable development”¹⁵—indicated that although the highest “official” tally of expatriate Zimbabweans was to be found in the

¹¹ “Zimbabwe Central Bank Devalues Currency For Exporters, Remittances.” MNDV3. <http://mensnewsdaily.com/2007/04/25/zimbabwe-central-bank-devalues-currency-for-exporters-remittances/>

¹² “Zimbabwe inflation reaches 2,200%.” *BBC News*. April 26, 2007. <http://news.bbc.co.uk/2/hi/business/6597993.stm>

¹³ Motsi, Tandayi. “Brain Drain Strangling Economic Development.” Originally published in *The Herald* (Zimbabwe). July 14, 2003. Reposted on Global Policy Forum. <http://www.globalpolicy.org/soecon/develop/2003/0714brain.htm>

¹⁴ “Zimbabwe inflation reaches 2,200%.” *BBC News*. April 26, 2007. <http://news.bbc.co.uk/2/hi/business/6597993.stm>

¹⁵ <http://www.sirdc.ac.zw/aboutus/aboutus.htm>

United Kingdom, anecdotal evidence suggested that many more had entered neighboring South Africa, both legally and otherwise. South Africa deports thousands of Zimbabweans *every week*. Many other Zimbabweans have relocated to Botswana. The results of the study concluded that “this brain drain trend has escalated in magnitude to levels that have serious implications for the country's capacity to deliver on the sustainable development front.”¹⁶

The Human Development Report produces an annual Human Development Index (HDI) that measures human development by examining life expectancy; adult literacy and enrollment at the primary, secondary and tertiary levels; and standard of living as indicated by purchasing power parity (GDP per capita). Zimbabwe dropped to 151 out of 177 countries in the 2006 HDI rankings.¹⁷ Zimbabwe's deteriorating economy has not only given way to hordes of Diaspora Zimbabweans but has also cultivated “internal brain drain,” in which white collar workers like engineers, academics, accountants, medical practitioners, architects, scientists and others professionals remain in the country but take up odd jobs and menial work in order to survive—work such as driving minibuses and taxicabs or operating beer stands. Many others have given up the profession to become cross-border traders, selling whatever they can in Mozambique, Malawi and Zambia.

Many of those who leave Zimbabwe actually become citizens of their new homes; as is often the case with skilled migration, the possible implication is that these immigrants are less likely to return should Zimbabwe ever reverse its downward spiral. Meanwhile those who are relegated to work vastly far flung from their areas of expertise are not only removed from the pool of talented and skilled workers, but their training becomes obsolete over time and the opportunity to amass years of experience is lost. The dilemma of Zimbabwe is particularly complicated because “the reason certain professionals are leaving Zimbabwe is that they think working at home is synonymous with supporting the current government and not the people.”¹⁸ Meanwhile, the loss of economically active, skilled people to other countries represents a crippling loss to a troubled nation for which a development agenda is critical.

3.2. Case Study #2: Nigeria

The pillaging tactics of developed nation are not limited to the movement of workers. Damage can be perpetrated directly on sites within developing nations. A vivid example is provided by the contentions of atrocities carried out in OPEC nation Nigeria at the hand of transnationals, most notably Royal Dutch Shell, the nation's largest oil investor, as well as BP, Chevron, Mobil, Texaco, and Total, and non-oil producers such as Coca Cola, Elf, and Motorola. Charges of human rights violations and environmental

¹⁶ “Zimbabwe: Focus on the extent of the brain drain.” IRIN Africa. July 23, 2003. <http://www.irinnews.org/report.aspx?reportid=45120>

¹⁷ <http://hdr.undp.org/hdr2006/statistics/>

¹⁸ Zimbabwe: Focus on the extent of the brain drain.” IRIN Africa. July 23, 2003. <http://www.irinnews.org/report.aspx?reportid=45120>

ravaging have been brought to the global spotlight with the speed of instant communication and feedback that characterizes the Knowledge Age. Large scale actions no longer occur in a vacuum, and it's more difficult for governments or corporations to create what Castells refers to as marginalized "black holes" of informational capitalism.¹⁹ In addition to environmental destruction, these companies are censured for their tolerance of injustices perpetrated by the Nigerian military regime on its own citizens.

Encroachment into Nigeria by Shell, the world's most profitable oil company, began in the early 1970s. Its nearly 30-year presence has profoundly influenced the Niger Delta, "an oil-rich region that produces 90 percent of Nigeria's hard-currency earnings but itself lacks roads, electricity, and even running water."²⁰ The conviction many Nigerians hold is that the disparity between the indigenous population and the foreign Shell employees who have all the amenities of modern life, including uncontaminated, readily available water, air conditioning, and telecommunications capabilities, is the fault of both its own government and the oil producers. One villager was quoted by the *New York Times* as exclaiming, "The development of the people is the responsibility of the federal government. We are angry at the government, too. But we are angrier at Shell, because Shell is here."²¹

An "Independent Annual Report" produced by Project Underground and the Rainforest Action Network points to "ongoing human rights abuses, including colluding with the military to suppress dissent, coercing activists ..., engaging in community manipulation tactics, and providing logistical and financial assistance to the military."²² Most prominent was the 1995 execution of Nigerian writer and environmental activist Ken Saro-Wiwa, who openly denounced what he called Shell's ecological war on the delta. Case in point: "Even though Nigeria only accounts for 14 percent of Shell's production, 40 percent of the company's oil spills have occurred there."²³ Gas-flaring "destroyed wildlife, plant life, poisoned the air and water, and left residents half-deaf and prone to respiratory diseases."²⁴ In addition to acid rain, agricultural lands in the Ogoni region have been destroyed by high-pressure pipelines, and though Shell left the area in 1993, local populations claim the company has "refused to clean up the mess it left

¹⁹Oglivly, Jay. "Dark Side of the Boom." *Wired Magazine*. November 1998.

²⁰Onishi, Normitsu. "Nigeria Combustible as South's Oil Enriches North." *The New York Times* on the Web. November 22, 1998.

²¹Onishi, Normitsu. "Nigeria Combustible as South's Oil Enriches North." *The New York Times* on the Web. November 22, 1998.

²²"'Mind The Gap' Between Shell's Rhetoric And Reality." *Drillbits & Tailings*. May 21, 1997.

²³<http://www.sierraclub.org/human-rights/boycott.html>

²⁴<http://www.sierraclub.org/human-rights/boycott.html>

behind.”²⁵ though the company counters that in May of 1996, it did, in fact, offer “to clean-up oil spills in Ogoni land that have occurred since we withdrew.”²⁶ The Project Underground/Rainforest Action Network report indicated extensive hydrocarbon pollution in the drinking water. Though Shell did build a potable-water system for locals in 1996, residents claim it has never worked.

Indigenous response to such sentiments has included all forms of protest, from the advent of grass-roots-inspired organizations like the Movement for Survival of Ogoni People and the Free Nigeria Movement, the latter of which aims “to terminate the history of institutionalized exploitation of Nigeria's natural resources, and the continued devastation of Nigeria's environment by any entity”²⁷ to hostage take-overs of production facilities. Worldwide support has taken the form of demonstrations and calls for boycotts and embargos.

In its defense, a Shell spokesperson observed that the company “spends \$30 million a year in ‘community development’ projects in the delta, far more than any other oil company spends on any other area of the world”²⁸ but added that “the level of development required goes well beyond the capacity of the oil industry. The government should take the lead.”²⁹ The company also maintains that it “is opposed to violence and has said openly and demonstrated on more than one occasion that it would not operate behind a military shield in the delta.”³⁰ Shell has supported local education by building schools, paying teachers, and awarding scholarships for higher education; n instigated health initiatives by building, staffing, and equipping hospitals; and in an unspecified manner has “assisted” “over 70,000 farmers.”³¹ It points to an Amnesty International report released on November 6, 1996 stating that Shell is the only transnational “with significant investments in Nigeria ... to acknowledge their responsibility to do all that they can to uphold human rights....”³² Again, Shell calls for government involvement and “agrees that not enough oil revenue is returned to the oil producing areas, but cannot dictate how its contribution to the national purse should be spent. This is a matter for Nigeria and is indeed at the heart of most Nigerian political discussion.”³³

²⁵<http://www.sierraclub.org/human-rights/boycott.html>

²⁶<http://www.shellnigeria.com>

²⁷<http://www.apic.org>

²⁸<http://www.shellnigeria.com>

²⁹<http://www.shellnigeria.com>

³⁰<http://www.shellnigeria.com>

³¹<http://www.shellnigeria.com>

³²<http://www.shellnigeria.com>

³³<http://www.shellnigeria.com>

4. Discussion

Arguably the first wave of continental “brain drain” in Africa began with slavery. A second and more fervent wave struck in the 1960s as Africa’s liberation movements gained traction. The newest wave flows with the tide of globalization, though the intellectual capital leaving Africa or their traditional region of Africa might not be aware of any significant differences from wave to wave. Yet those who support globalization must seemingly accept “brain drain” as one of its inevitable outcomes just as it has been an inevitable part of human history. Occupation-related immigration is as natural to the growing global market as is the fact that transnational corporations eventually exploit the human-resources market of “cheaper” competition by any means necessary. But during the first wave, Africa and her peoples had no say. In the 21st century, Africa’s own actions drive out her own lifeblood, while African nurses are desperately needed at home to patch the wounds. In other words, responsibility swings both ways; therefore any solution, like the problem, must be a systemic one aimed at addressing serious failures across the board.

Speaking on the “Effects of Brain Drain in National Development,” Pro-Vice Chancellor of the University of Ghana Edward Ofori-Sarpong noted that roughly 70,000 highly qualified Africans—about a third of its skilled professionals according to a report issued by Natal University in South Africa³⁴—leave their home countries annually. Ofori-Sarpong added that Africa as a whole spends about US\$4 billion annually to recruit about 100,000 skilled expatriates. Framing this reality as continent-wide suicide, he rightly asked “why African governments, who claim to be poor, find it logical to pay expatriates hundreds of times more than local experts.”³⁵

Colonial- and industrial-era residue lingers in these nations as the underdeveloped infrastructures that are points of leverage for developed nations today. Few would argue that brain drain severely impairs economic growth and serves to fertilize poverty in Africa and other parts of the developing world. However, one might suggest that colonialism “gets the blame when local failure—that of local governments, politicians, businessmen or economic policy—would be a more salutary explanation.”³⁶ For instance, look at Mugabe’s allegation that Britain is a thief in the night. While it is true that “with the fast ageing population, western countries have become increasingly dependent on migrant workers to fill the void,”³⁷ Mugabe and other African rulers deal in a kind of “intellectual dishonesty” by which they point the finger of blame in every direction except their own. And the West does the same by holding Africa hostage technologically and monetarily.

Bypassing the West’s culpability for a moment, look at Africa herself. Property and land rights are certainly part of the equation. Robin Palmer, Oxfam Global Land

³⁴ <http://www.globalpolicy.org/socecon/develop/2003/0714brain.htm>

³⁵ “Brain Drain Costing Africa Billions.” *Ghanaian Chronicle*. March 13, 2003.

³⁶ Galbraith, p. 132

³⁷ <http://www.globalpolicy.org/socecon/develop/2003/0714brain.htm>

Adviser explains that “access to land, which remains for many people in Africa the ultimate form of social security, is being severely threatened. The threat comes from a combination of local and international factors, which include excessive liberalization, the search for foreign investment, and an often blind faith in market solutions.”³⁸ The way this played out in Zimbabwe was obviously disastrous. But even aside from this worst case scenario, any country’s adherence to policy decisions that lack accurate, if any, critical analysis before implementation is ominous.

Globalization has also given birth to segmented capital markets, yet many African capital markets are too inefficiently organized to leverage the use of their savings in a manner that promotes overall economic development. Similarly, inadequate investments in primary, secondary and tertiary education create a negative cycle that is difficult to reverse.

War and corruption aid and abet brain drain, too. A small country like Liberia, with a population of three million, has witnessed the number of its government physicians drop from 400 to 34, after 15 years of civil war.³⁹ Who can count the number of civil and uncivil wars in Africa? When war is done, the many opportunists who manage to benefit from these battles—both indigenous and non-indigenous—often bring with them a level of corruption unrivaled by their predecessors. The developed nations are certainly not without dirty hands, but corruption in underdeveloped countries goes beyond politicians. Public servants in many places operate on a system of bribery on a scale unknown to the West: police officers writing tickets at traffic stops; appointment nurses who assign hospital beds; customs agents who determine which packages will be delivered intact and which will mysteriously vanish.

The point is that the problem of African brain drain is not caused solely by the West or even by the more affluent parts of Africa that find themselves recipients of refugee populations, skilled folk among them; for example South Africa, despite an influx of Zimbabweans, suffers brain drain. A difference may be that South Africa is more able to replace its sons and daughters with expatriates from the developed world, though this is not without its own monetary costs to the buyer and perhaps “spiritual” costs to the seller.

Economist John Kenneth Galbraith regards the developed nations that do adhere to a sense of responsibility towards the lesser developed world as caught in between a rock and a hard place: “Even if the money and the will to help are available, the difficulties do not end. If the assisting country remains remote, waits to be asked, does not interfere, it will be considered indifferent. And very often, the help will be badly used. The alternative is to be interested, forthcoming, watchful, anxious to urge what seems wise and right. Then you risk being called a neocolonialist, one who is seeking to re-establish imperial pre-eminence or rule.”⁴⁰ Some may argue that the 40 or so years of

³⁸ Land Rights in Africa. Oxfam.

http://www.oxfam.org.uk/what_we_do/issues/livelihoods/landrights/introduction.htm

³⁹ <http://www.irinnews.org/Report.aspx?ReportId=60788>

⁴⁰ Galbraith, p. 132

development assistance to Africa have resulted in very little actual development. Claude Ake felt that “development strategies in Africa, with minor exceptions have tended to be strategies by which the few use the many for their own purposes.”⁴¹ Nonetheless one can question whether the possibility of adding to the already tarnished reputation of the developed world is an ample excuse for further neglecting the more than two thirds of the world’s population that comprise the developing world.

If monetary aid is not deemed as the sole solution, imparting technological knowledge can be viewed as another critical piece. In other words, rather than taking workers, the West could help train Africa’s best and brightest right at home, though this does not provide incentive for young worker to stay put. Besides, “countries of the Northern hemisphere are often all too eager to transfer certain forms of technology, especially through transnational corporations, but the need of Arabs and Africans [and other persons hailing from lesser developed world regions] for certain technological transfers only helps to deepen relationships of dependency between the two hemispheres.”⁴² Ultimately it is this interdependence that is the developing world’s hope for becoming economic powers of their own right. Indeed, “It is precisely because of the interdependence and openness of international economy that states must become engaged in fostering development strategies on behalf of their economic constituencies.”⁴³ Increasingly, nobody can be excluded from these constituencies as brain drain, obsolescence and declining infrastructure, and political instability affect everyone and threaten to “weaken the foundations of global progress.”⁴⁴ After all, low wage countries are consumer nations, too, and “poor countries have always been in desperate need of foreign exchange in order to buy the machines that they hope will bring industrial development and prosperity. Increasingly, however, they need foreign exchange to feed their populations. The message of the World Bank to poor countries is ‘Export or die!’”⁴⁵ Yet Third World countries are forced to maintain open markets while developed nations use price supports and restrictions to refuse the crops and goods they produce.

The transnationals may be slower in realizing this than individual governments, though this is not universally so. “When executives of global corporations scan the world for materials, labor or markets, their eyes never light on the nations at the very bottom. In executive suites they are not regarded as part of the world economy.”⁴⁶ This belief-

⁴¹ Ake, Claude. *Democracy and Development in Africa*. 1996.

⁴² Mazrui, p. 172-73

⁴³ Castells, p. 90

⁴⁴ “U.N. Chief Calls for Supportive Int’l Setting for Development.” Xinhua News Agency. November 14, 1994.

⁴⁵ Barnet and Cavanagh, p. 250

⁴⁶ Barnet and Cavanagh, p. 287

system presents itself as the reason why “multinationals have been criticized as being overly concerned with profit and failing to take their broader responsibilities seriously: to defend human rights, to protect the environment, to be good corporate citizens. Such accusations reflect a shift in what society expects of both business and government.”⁴⁷ In that sense, the altruistic nature of globalization is real and unavoidable. Child labor violations, discrimination, environmental devastation, internal conflict all occur under the lens of the world’s watchful eyes, and the traditional stewards of society—business and government—have new expectations placed upon them.

The inescapable reality for corporations is that “they bear responsibility for the total impact of their operations—for the manner in which they treat their employees, for their security arrangements, for their effect on the social, physical and political environment in which they operate.”⁴⁸ The flipside of that reality, however, is that the developing world remains woefully behind and is somewhat dependent as well as interdependent on the centers of the world’s wealth. Recognition of that fact is evident in the boon of IGOs, NGOs, and the like. It is not incumbent upon the developing world to sit back and await the emergence of the “Fourth World” Castells describes as resulting from “technological apartheid.”⁴⁹

Without precluding “official development assistance” from myriad international organizations, the developing world needs to take action as well. For example, “while there is a *push factor* that forces many native experts to seek opportunities in other countries, there is also a *pull factor* in the wealthier Third World societies that magnetically attracts workers and specialists from other lands. Together the two forces are helping to lay down some of the foundations of organic solidarity within the Third World.”⁵⁰ This is important as the ability to control migration seems to decrease in direct proportion to the desire of population to relocate. Borders are porous even when developed countries shut their doors. Meanwhile lesser developed countries are often overwhelmed by emigration. One wonders how much of the negative effect of the “brain drain” would be alleviated if developed countries opened up their borders to unskilled labor.

Senegalese filmmaker Sembene Ousmane believes the real problem in Africa is an inferiority complex as well as a generational dilemma. He says that “the African who has lived in Europe has abandoned his own culture. Yet the supreme contradiction is that it is only when they come and live in Europe that many of them discover their African

⁴⁷<http://www.shellnigeria.com>

⁴⁸Chandler, Sir Geoffrey. “The New Corporate Challenge: Globalization Requires Companies to Do More than Seek Higher Profits.” *Time Atlantic* (International Edition). February 1, 1999. p. 64.

⁴⁹Oglivy, Jay. “Dark Side of the Boom.” *Wired Magazine*. November 1998.

⁵⁰Mazrui, p. 175

selves.”⁵¹ He states, “Young Africans who were unable to train for a profession on the African continent have had to travel abroad. Of course they like the comfort. Right now we’re experiencing a brain drain in Africa, as in Asia, and the real beneficiaries of that brain drain are the United States and the United Kingdom. The youngsters also have a freedom that was not there in the past. They are free in body and mind. I think the young are right to claim that freedom. But I think the time has come when the generations can come together and cement something new.”⁵²

That something new might need be a multilateral solidarity on a matter that affects the world at large since the idea of these workers returning home to spark an economic revolution is unlikely per history. At the same time, it is just as natural for the receiving country to train its own workers in preference to importing foreign workers, and it is for the “donor” country to wish to recoup its investment schooling a workforce intended to work at home. These sentiments have a direct impact on initiatives such as The Commission for Africa, funded in 2004 by British Prime Minister Tony Blair, with nine of its 17 members from Africa. Their report aptly entitled “Our Common Interest” recommended that the world's richest nations to provide \$7 billion to develop Africa's health infrastructure. This would be a noble venture for sure, but what a tragedy for Africa if the skilled health workers who receive training from this type of program were to wind up leaving the continent to work abroad.

However, multilateral solidarity can take many forms, such as Hewlett Packard (HP) and UN Educational, Scientific and Cultural Organization (UNESCO) joint project on “Piloting Solutions for Reversing Brain Drain into Brain Gain for Africa,” by providing grid computing technology to universities in Algeria, Ghana, Nigeria, Senegal and Zimbabwe. Developing nation coalitions have also sprung up, like the Group of 77, which represents 132 developing nations and China. Addressing the fact that “developing countries cannot effectively take advantage of globalization individually,” a U.N. Development Programme official contended that “they must pool resources, link up markets, and exchange valuable lessons in management and technology.”⁵³ Developing nations must stand up for one another in other ways as well such as when Nigeria and Peru joined together in opposition to Shell.

Information sharing between the two oppressed nations was nurtured when Shell was said to have “broken promises to respect indigenous rights, consult with

⁵¹ Sembène, Ousmane. “Africa in the mirror of cinema.” OpenDemocracy.net. November 13, 2003.

http://www.opendemocracy.net/democracy-africa_democracy/africa_film_1575.jsp

⁵² Sembène, Ousmane. “Africa in the mirror of cinema.” OpenDemocracy.net. November 13, 2003.

http://www.opendemocracy.net/democracy-africa_democracy/africa_film_1575.jsp

⁵³Deen, Thalif. “Development: Globalisation Marginalising the South.” World News/Inter Press Service. May 1998.

communities, and operate to the highest environmental standards”⁵⁴ after only one year in Peru. Allegations are that Shell has been dumping toxic waste in the Amazon. Leaders from Peru’s “largest indigenous federation” and the Movement for the Survival of the Ogoni People have requested that “Shell ... suspend its operations in Peru until they've cleaned up Nigeria.”⁵⁵ For its part Shell states its dilemma as balancing its need to “play a bigger role in society, by providing infrastructure and social services where government does not [only to] face accusations that it is interfering or buying influence [and] concentrat[ing] on what it does best: serving its customers and getting the best return for shareholders.”⁵⁶

Summary

An African professional who goes abroad faces discrimination, culture shock in the form of alien culture and language, and is cut off from the emotional support system of family and friends. Having the tenacity and discipline to succeed against all odds, these individuals probably could make a huge impact at home. But the meaning of home, like the workers themselves, must be adaptable.

A strong case has been made that the legacy of the industrial revolution continues to have a daily impact on the relations between the developing and the developed nations. Globalization has given the developed world a new awareness and sense of obligation to the developing world that was not previously prevalent. The developing nations must also take responsibility for, in many instances, permitting certain travesties to transpire. Whether or not globalization is a pretext, it presents opportunities that the Third World must seize if they are ever to join the rest of the world in enjoying the fruits of the earth. The information revolution can serve the lesser developed world in much the same way it does the developed world. Merely perceiving differently can be effective, as suggested by Mazrui who proposes a pro-active stance:

“The dual strategy for the Third World (including China) is both to learn from the North and to share expertise among each other. Those aspects of technology which are being freely transferred by the North should be ‘decolonized’ and stripped of their dependency implications as fast as possible. Those aspects of technology which are deliberately monopolized by the North should be subjected to Southern industrial espionage in a bid to break the monopoly.... That is one reason why the brain-drain from the South is *not* an unmitigated disaster. What would be a catastrophe is a

⁵⁴“‘Mind The Gap’ Between Shell’s Rhetoric And Reality.” *Drillbits & Tailings*. May 21, 1997.

⁵⁵“‘Mind The Gap’ Between Shell’s Rhetoric And Reality.” *Drillbits & Tailings*. May 21, 1997.

⁵⁶ www.shellnigeria.com

complete stoppage of the brain-drain. It is vital that the South counter-penetrate the citadels of technological and economic power.”⁵⁷

Not only is this a viable possibility, but it is a necessity. It is also necessary for the transnationals to “catch up,” in terms of facing their responsibilities and laying aside their profit motives in instances where they conflict with real lives. The eyes of the world are upon them, and then can no longer function with zero accountability.

Similarly governments must look at the way they address migration so that the benefits are distributed more evenly. The term brain drain was coined after WWII, when the U.K. was concerned that its doctors, scientists, and other professionals were leaving for the United States. The viewpoint was that it was harmful the country of origin, and this is probably still true though many would argue some benefits, some of which have been addressed here. The more a nation-state is culturally and economically self-sufficient, the less affected it will be a flight of its intellectual capital. Yet, the more a nation-state is culturally and economically self-sufficient, the less likely those workers may want to leave and the more likely they may return if they do leave—a sort of “brain banking,” in which there is a return on the investment after all. The truth is that Africa is at the mercy of socio-political turmoil and fractious, backward cultures that retard infrastructural development and economic growth. African governments, less so than the individuals who determine to better their lives, need to do some soul searching and truthful self-examination.

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⁵⁷Mazrui, p. 173

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Appendix: World Wide Web Resources

Amnesty International
<http://www.amnesty.org>

Apic
<http://www.apic.org>

Center for World Indigenous Studies
<http://www.cwis.org/index.htm>

A Guide to Internet Resources in Sustainable Development
<http://www.caf.wvu.edu/gdsouzawww/guide.html>

Global Information Infrastructure Commission
<http://www.giic.org>

The Global Knowledge Partnership
<http://www.globalknowledge.org>

Greenpeace International
<http://www.greenpeace.org>

Information Bank on African Development Studies
<http://www.worldbank.org/html/ibads/IBADS.html>

OneWorld Think Tank
<http://www.oneworld.org/ttank/index.html>

Pambazuka News: Weekly Forum for Social Justice in Africa
<http://www.pambazuka.org/en/>

Shell Nigeria
<http://www.shellnigeria.com>

Sierra Club Human Rights Watch
<http://www.sierraclub.org/human-rights/boycott.html>

World Wide Fund for Nature
<http://www.wwf.org>