The Future of Progress

Reflections on Environment and Development

Revised Edition

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& others

THE FUTURE OF PROGRESS

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From poverty and environmental degradation to overpopulation, ethnic friction and staggering international debt, the problems of the 'developing' nations of the South are all too familiar. Equally well-known are the crises facing the industrialised North: resource depletion, pollution, unemployment, crime, homelessness.

To cure these ills, most experts recommend the same industrial remedy, comprising equal parts economic growth (which today takes the form of 'free trade') and technological advance. Called 'progress' in the North and 'development' in the South, this regimen is commonly believed to offer long-term health for the Earth and prosperity for all its inhabitants.

The consensus of the authors in this volume is very different. From our perspective, it is clear that the industrial development model—far from offering solutions—is in fact a fundamental *cause* of present problems.

The many threads that make up this industrial model are closely interwoven, and the resulting tapestry is one of great complexity. Industrial society cannot be understood in terms of direct cause-and-effect relationships; it instead needs to be seen as a *system*, whose components are interrelated.

The economic paradigm

According to modern economics, a continuous increase in economic output is necessary, both to increase prosperity and to solve environmental and social problems. This belief, in fact, underlies the policies of *every* government, regardless of their position on the political spectrum. A narrowly defined criterion of economic efficiency is used to plan and administer economies, and factors that can be reduced to monetary value are given

primary importance. Production choices are dictated by those who wield power in the money economy.

The economic growth imperative compels businesses to constantly grow, to find new markets, resources, and areas of life to colonise. Products are made to wear out sooner than necessary. Marketing professionals use whatever means are available, including the creation of new 'needs', to stimulate consumer spending.

The natural world is largely absent from the economic models used by development planners. There is an implied assumption that the Earth has an infinite capacity to supply the resources necessary for production, and to absorb the resulting wastes. In the real world, however, this is not true. It has now become clear that industrial society is seriously overburdening the biosphere, with potentially catastrophic consequences. Industrial society is in effect borrowing from future generations, which will inherit a depleted and degraded Earth.

The environment is not all that is left out of the models of conventional economists. Within the economic paradigm, attention is focused on those areas of life which can be most readily quantified. Values that help define human welfare—including happiness, fulfillment, morality and aesthetics—are essentially ignored.

The biases inherent in this way of thinking have a profound effect on development plans throughout the world. Purely economic measurements, for example, rate traditional subsistence societies as the poorest of the poor. Thus the UN lists Bhutan as one of the world's most impoverished countries, even though almost all of its people have adequate food, clothing and shelter, as well as sophisticated works of art and music—and more time for families and friends than most Westerners. According to modern economics, these nonmonetary measures of well-being are as nothing. What matters is GDP and per capita income, and on that count the Bhutanese are deemed to be no different from homeless people on urban streets.

Science and technology

The economic paradigm goes hand in hand with modern science and technology; together they form the driving force behind industrial society.

Science gains its understanding of the world largely by isolating and studying small pieces out of the interconnected continuum of nature. This approach has had undeniable success, and modern technology is indeed able to manipulate the world to an almost unimaginable extent. However, the ability of scientists to predict the consequences of their actions is limited to narrow parameters implicit in the scientific method. Scientific models are most successful when dealing with the relatively simple and the short term; when it comes to the infinite complexity and long-term time frame of social systems or ecosystems, the limitations of science are particularly evident. Thus, while scientists today are feverishly racing to advance and implement the new biotechnologies, the long-term social and ecological implications of these 'scientific breakthroughs' cannot be revealed through scientific inquiry.

Given these fundamental shortcomings, the pre-eminent status of science today is profoundly disturbing. Science has come to dominate all other systems of knowledge. Traditions of non-Western cultures and the experience and intuition of individuals are accepted only to the extent that they can be verified by scientific observation. Meanwhile, the focus of scientific inquiry is getting narrower by the year, while its manipulations of the natural world deepen.

Infrastructure development and centralisation

Continuous economic growth and technological advance feed one another. Their dynamic interaction inevitably leads to large centralised organisations and requires a constantly expanding infrastructure: transportation and communication networks, centralised energy installations, large-scale irrigation schemes and Western-style educational facilities.

In the South, infrastructure projects are critical to the modernisation process. They are usually initiated by 'aid'

programmes and funded by loans from international financial institutions such as the World Bank. A large portion of the overwhelming debts accumulated by Third World governments in the last three decades was incurred for infrastructure development—almost all of which is designed to serve the needs of international trade and the requirements of large urban centres. Very few resources go toward improving infrastructures that could enhance smaller communities or local exchange.

The failure of conventional economics to adequately account for environmental and social costs results in the perception that these larger production units offer 'economies of scale' and are more 'efficient' than small-scale decentralised structures. Similarly ignored are the massive subsidies for infrastructure development, which give large-scale centralised enterprises an unfair advantage over smaller, local units of production.

Centralisation and economic growth operate in a mutually reinforcing cycle: bigger and more profitable companies have more power to sway markets in their favour, better access to investment capital and information, and are better equipped for research and development. These advantages in turn help them to grow still bigger and to force out smaller competitors.

Urbanisation

The expansion of the industrial model through development thus promotes the breakdown of smaller-scale local economies. In both North and South, today's macro-economy forces people away from small towns and rural areas into ever larger urban conglomerates in search of paid employment.

Rural inhabitants find themselves on the periphery, reduced to resource suppliers for the cities where political and cultural life is centered. As rural areas decline in population and political importance, people's connection with the land is lost.

When individuals and communities control their own resources, they tend to behave responsibly: it is they and their families who directly benefit (or suffer) from the use (or misuse) of the environment. Through traditional practices, social stability and ecological balance are maintained. But in the centralised

macro-economy, people are often far removed from the environmental impacts of heightened economic activity. Traditional behaviour patterns that once led to ecological harmony are abandoned, and many new problems—including rapid population growth—suddenly appear.

Social and environmental problems in rapidly growing cities are even more pronounced than those in rural areas. The sheer quantities of resources that are concentrated in urban centres overwhelm the ability of local ecosystems to absorb the impact of human activities. Natural cycles are disrupted; since people are separated from the consequences of their actions, even unmistakable signs of decline and breakdown can go unheeded.

People in today's urban conglomerates no longer need to depend on their neighbours. The interdependent communities that were an integral part of traditional life are transformed, in the modern setting, into collections of competing individuals. People are left insecure, alienated and isolated. This contributes directly to the problems facing modern urban populations around the world: crime and violence, alcohol and drug addiction, the abuse of women, children and the aged.

Ethnic strife

Many people in the 'developing' parts of the world recognise that modernisation is exacerbating ethnic rivalry, but tend to think of this as the necessary price of 'progress'. They believe that only through the creation of an entirely homogeneous and secular society can these rivalries be eliminated. Westerners, on the other hand, often assume that ethnic and religious strife is increasing because modern democracy liberates people, allowing old prejudices and hatred to surface. If there was peace earlier, they assume it was only because conflicts were repressed by authoritarian regimes.

The truth is very different. Through development, diverse people—often from very different cultures even within a single country—are pulled from rural areas into large urban centres, where community ties are broken and job opportunities are scarce. Young men who were once part of a social structure with

a place for everyone must now fight for their survival, competing with others for jobs that are few and far between. In this artificially-created situation, any religious or ethnic differences are inevitably exaggerated and distorted. The situation is further aggravated by the fact that the ruling government usually favours its own kind, while members of other ethnic and religious groups are subject to discrimination.

On a deeper level, the modern development model gives rise to hostility by putting pressure on diverse people to conform to a Western model whose standards are impossible to meet. Most people in the developing world cannot be blue-eyed and blonde and live in two-car families. Yet—through the media and advertising—this is the image that is held up as the ideal. To strive for such an ideal is to reject one's own identity. The resulting alienation can give rise to resentment and anger, and can ultimately lead to violence and fundamentalism. In this book, Nsekyue Bizimana points out how the imitation of Western ways in his native Rwanda led to a breakdown of community and a rise in tribalism—precursors to the incredibly violent upheavals that have recently decimated the country.

Even people in the industrialised world are victimised by stereotyped media images, but in the Third World, where the gulf between reality and the Western ideal is so much wider, the sense of desperation is that much more acute.

The loss of self-sufficiency and sustainability

Since indigenous cultures were in tune with the specific resources and limitations of their local environment, the Earth's cultural diversity reflected its biological and geographic diversity. The people of high-desert mountain areas, for example, evolved cultures far different from those found on tropical islands. But industrial culture is based on technology and international finance, not the natural world, and its spread has had the effect of erasing diversity and leveling cultures. Today, virtually identical modern clothes, food and architecture can be found in every modernised city, regardless of the climate, local resources or cultural history.

In rural areas affected by development, even agricultural production is based on a single Western model. Under pressure from the industrial nations, the 'developing' countries have steadily abandoned their indigenous methods of food production and their basic-needs industries. Resources are increasingly exported to supply the demand for luxury items in the North, while Northern manufactured goods are imported back to the source country, where they replace locally-supplied goods. Farmers who once grew a variety of crops and kept a few animals to provide for themselves, now often grow a single cash crop for distant markets, and their livelihood can be jeopardised by disruptions in oil supplies or fluctuations in international commodity markets.

Previously sustainable ways of life are often supplanted by imported techniques that disregard the long-term impact on people and ecosystems. For instance, Martin Khor notes that in many 'poor' nations fish has traditionally been a cheap and plentiful source of animal protein. While traditional fishery methods served to maintain stocks and protect breeding beds, the new high-tech fishing industry has introduced methods which deplete fish stocks faster than they can be replenished. As a result, livelihoods in small-scale fishing communities in the Third World is threatened—and the cost of fish has gone up, so poor people can no longer afford it.

Virtually overnight, development can bring environmental degradation to regions where people have lived sustainably for millennia. According to Filipina del Rosario-Santos, the Philippine forests will last only 35 more years if present harvest rates continue. This decimation of rainforest results in severe topsoil erosion, loss of biodiversity, climatic changes, and the displacement of the human communities which depend directly on the forest for their livelihood.

Population growth

It is generally forgotten that populations in traditional societies—including Old Europe—remained relatively stable for centuries. Edward Goldsmith describes some of the strategies and taboos

traditional societies employed to control population. Moreover, these cultures had a direct relationship with the resources of the land around them, and were thus better able to match their numbers to the land's carrying capacity. It was only when these traditional patterns were disrupted that populations began to explode.

The conventional wisdom is that the only way to reverse this explosion is through more economic development, so that the South can come to enjoy the same material standard of living as the North. On the face of it, this is a perfectly reasonable argument, since even the most cursory look at the global demographic map will show that population growth is higher in the less industrialised parts of the world and lower in the more industrialised parts.

However, the mathematics of the argument simply do not work. The North's prosperity is only possible because its inhabitants, one-fifth of the world total, consume roughly four-fifths of the earth's resources—an imbalance that continues to grow. What's more, the biosphere is already under serious threat from current levels of human activity: it is inconceivable to imagine that the Earth could sustainably absorb the 16-fold increase in economic activity that would be needed for the South's consumption level to equal that of the North.

A related notion is that limiting population growth in the South will require more and 'better' education for women, leading to job opportunities outside the home and family. This ignores the fact that the education prescribed is specialised training for jobs in a global economy, in which there simply are not enough jobs to go around. Western-style education for women is merely another aspect of a development process that hastens the breakdown of more diversified locally-based economies and accelerates urbanisation.

The industrial model is simply not a pattern which is replicable around the world. Even if it were technically feasible, it is highly questionable whether a model which leads inevitably to such serious social and environmental problems—family and community breakdown, poisoned soils and water, a destabilised climate—should be imposed everywhere.

Cultural breakdown

Few people question the modern education system, which has been promoted throughout the developing world. But while traditional education teaches people how to live and work within a particular ecosystem, Western-style schools train people to become narrow specialists in a Westernised urban environment. This education cuts children off from the accumulated knowledge about local resources that has been passed down from generation to generation. In so doing, modern education contributes to both the breakdown of local culture and the loss of self-esteem.

Schoolchildren in many non-Western cultures rarely learn anything directly relevant to their environment and resources. Instead they receive a poor version of a New Yorker's education—including learning Wordsworth and English translations of *The Iliad*, as is the case in Ladakh. Evelyne Hong describes a similar situation in East Sarawak, and the cultural breakdown that ensues.

Cultural diversity is also undermined by development and modernisation through the creation of artificial 'needs'. The image of the industrial 'good life' is carried around the planet by the media, advertising and education. It is an image that in reality exists nowhere, but it makes the daily existence of almost everyone seem boring, inadequate and poor by contrast. In diverse cultures around the world, people have changed from being proud and self-reliant into a people who are ashamed not to have 'modern' conveniences, and who now 'need' not only imported cement and packaged foods, but also mirrored sunglasses, designer blue jeans, and Rambo T-shirts.

The craving for luxury items in both the First and Third Worlds exacerbates the depletion of resources, particularly from tropical areas. The élites in the Third World tend to copy the lifestyle of their Northern counterparts, even buying expensive imported goods manufactured from resources taken from their own countries—thus further impoverishing their own populations. S.M. Idris points out that billions of Third World dollars are spent on imported automobiles and in building roads and bridges, while most public transportation systems in the Third World are quite inadequate.

The myth of progress

The concept of 'progress' lies at the heart of the ideology of industrial society. Modern technology and economic growth, it is believed, will ensure ever-increasing prosperity. It is assumed that all societies will eventually follow the same path as the most 'advanced' industrial societies. This linear conception of development inherently places some societies 'ahead' and some 'behind'. The label of 'backward' or 'underdeveloped' creates tremendous psychological pressure to embrace what is perceived to be more modern or advanced. Since the goal is continually changing and perpetually out of reach of all except the most privileged minority, the system inevitably creates insecurity and anxiety.

A close look at the limits to resources and at current social and environmental crises shows that the belief in progress is a cruel myth. Leaving aside the question of whether 'modern' lifestyles are really desirable, it is clear that there are simply not enough resources for the entire world to duplicate the consumption patterns of the richest countries, nor indeed are there sufficient resources for the rich countries to maintain their present level of consumption. Technological innovation is offered as the magical way around these resource limits, but this too is an empty promise. It obscures the fact that each new technology brings about unpredictable social and ecological consequences, and that many of our most pressing problems are the *result* of technologies previously heralded as godsends. Human beings are far from able to understand and control the natural world, and are ultimately dependent on natural processes—not technology—for the necessities of life.

Conventional Solutions

While many international institutions and national governments are beginning to recognise some of the problems inherent in the current development model, the solutions currently being proposed in most fora fail to address their root causes. For example, *Our Common Future* (the report of the World Commission on Environment and Development, often referred to as 'The Brundtland Report'), calls for renewed commitment to economic growth

and high technology—albeit with environmental reforms—in order to generate the wealth necessary to alleviate poverty and clean up the environment. And most development organisations view the transfer of power to supranational institutions (rather than the re-empowering of local, self-reliant communities) as a positive trend. Similarly, they support the establishment of Western-style schools and universities—an educational system that emphasises specialisation and leads to the loss of local knowledge.

Free trade

'Free trade' is seen by government leaders as a panacea for world economic problems. However, the reality is that free trade policies work against the interests of the vast majority of producers and consumers—in both North and South—by systematically dismantling locally-based economies.

Free trade agreements aim at allowing transnational corporations to establish markets and subsidiaries anywhere, with as few restrictions as possible. Locating operations in the South allows corporations to take advantage of lower labour costs and less strict environmental regulations. Moving factories and industrial agriculture operations to the developing world not only exacerbates unemployment in the North, but also displaces Third World people from their traditional occupations, particularly in agriculture. Rural areas will be even more rapidly depleted as people are drawn into already overwhelmed urban areas.

Free trade also challenges the regulations established by Third World countries to protect their resources. Indonesia, for instance, recently attempted to ban the export of Indonesian rattan, which would help protect a rapidly dwindling forest resource. The US and members of the EC immediately protested, saying that this was an unacceptable barrier to trade.

The opening up of every economy in the world will make it easier for corporations to market pesticides and pharmaceuticals in the South that are banned in the North. The Third World has already become a destination point for hazardous waste produced in the North, and efforts to limit this practice are

undermined by free trade policies.

Martin Khor draws attention to the Uruguay Round of GATT, which, he says, will usher in still greater deregulation of Northern industry, particularly in the area of services. Proposals sponsored by the US and other developed nations will allow the unregulated influx of Northern service industries into the South. This will remove banking, health care, media, and communications from local control and put it in the hands of multinational corporations.

As has been pointed out, constant exposure to Western media and advertising images is one of the factors undermining diverse cultures and giving rise to social and psychological breakdown. 'Free trade' treaties will make it all but impossible to control or limit the influx of these culturally destructive images.

Industrial agriculture

No single area of life has been more profoundly affected by the process of industrial development than agriculture. And since agriculture plays such a central role in non-industrialised societies, the impact of the changes which development has brought about is particularly widespread.

Agricultural experts—focussing on narrow parameters in a simplified model—promote Western methods of agriculture in order to increase production. The export of this agricultural technology—including farm machinery, hybrid seeds, chemical fertilisers and pesticides—opens new markets for industries in the North, a necessary ingredient for its continued economic growth. The South is promised that their increased dependence on Northern inputs will be more than offset by the wealth created from higher agricultural productivity.

However, the models employed by the agricultural technologists do not match the complexities of the natural world. Unlike the varied strains of a given crop grown traditionally, new strains of genetically identical hybrids are not the result of slow adaptation and evolution in the host environment. The new strains are more vulnerable to the exigencies of weather and pests, and increasing amounts of fertilisers and pesticides are required to

maintain yields. Rather than the promised prosperity, many Third World countries instead find themselves with degraded agricultural land, continued reliance on Western agricultural technology, and a less-than-adequate food supply.

The new biotechnologies represent a further intensification of this process. Much of the genetic information used in genetic engineering originally comes from wild or domesticated plant varieties found in the South. These expropriated resources are then to be sold back to the South as part of 'patented' forms of life, which require farmers to purchase new seeds, fertilisers and herbicides year after year. Among other things, agro-chemical corporations are working to genetically engineer crops to be resistant to the herbicides the corporations themselves produce and sell. The long-term ecological risks of this genetic tampering are unknown, but the economic result will be further dependence on transnational corporations.

Strategies for Real Change

Strategies for change fall into two distinct categories: those that counter destructive trends, and those that help foster more positive alternatives. Each of these requires different approaches. 'Counter-development'—opposing the further extension of industrial monoculture—requires massive and rapid efforts, both locally and internationally. On the other hand, implementing more sustainable alternatives is work that needs to proceed slowly and carefully, and will vary significantly from place to place.

Many regions of the South, where the way of life is still based on traditional and ecologically-sensitive patterns, contain the seed for their own sustainable future. Recreating strong local economies and vibrant human-scale communities is a much bigger challenge in the highly urbanised North. Perhaps it will be the South, where village settlements are still the norm, which will lead the world toward saner ways of living.

Challenging the techno-economic model

A vital part of a counter-development strategy is to publicise the

facts about the environmental degradation and social problems of the North. It is especially important for this information to reach the South, where the problems of the 'modern' world are not widely known. Stephanie Mills describes some of the consequences of misguided development in the US, a story that needs to be heard more widely in the South.

The testimony of people from the South who have experienced the reality of life in the most advanced industrial societies can be one of the most powerful ways of correcting false impressions. Dr. Nsekuye Bizimana tells how his expectations of Western life far exceeded what he found when he actually went to live there, and how his experiences in the West enabled him to better understand the breakdown in his native Rwanda.

People in the North also need to know more about the reality of life in the South. Above all, perhaps, they need to understand what 'development' really means in practice; that far from raising Third World living standards, as is commonly supposed, development has tended overall to impoverish people by making them dependent—both physically and psychologically—on international economic and political forces far beyond their control.

The educated classes of the North who enjoy privilege in the current world order have a special responsibility for implementing change. They have many more resources at their disposal and much greater influence than the marginalised classes of North and South, who are often struggling just to survive. The Northern democracies also tend to be more responsive to citizen pressure than the often authoritarian regimes of the South.

There are many creative ways of building solidarity between the populations of North and South while raising awareness of the inter-connections between the two groups. Silvia Ribeiro and Birgitta Wrenfelt describe how Future Earth Sweden links grassroots groups working on similar socio-ecological issues. The network creates and supports projects based on local self-reliance, promotes information exchange between like-minded groups, and provides training on issues of appropriate technology and alternative development.

Control over information is now concentrated in the hands

of governments and large corporations, which are biased toward the perpetuation of the current system. Alternative viewpoints and analyses are filtered out, personal thoughts and experiences are devalued, and many important events and issues are never discussed. Although it would be costly and centrally organised, a large-scale alternative media campaign is nonetheless consistent with a philosophy of small-scale grassroots organising. A massive publicity campaign may be the only way to stop the development juggernaut and to create the space for alternatives to evolve.

The policies of a few international institutions, such as the World Bank, the International Monetary Fund (IMF), the General Agreement on Tariffs and Trade (GATT), the Food and Agriculture Organisation (FAO), and the World Trade Organisation (WTO), affect the lives of people all over the world. Yet decision-making in these institutions is not democratic, and there is no real forum for public input. Campaigns to change these institutions and to force them to live up to their official statements about environmental sustainability and social justice are a crucial part of the process.

Existing examples include the network of activists organised by *The Ecologist* to expose the unsustainable policies of FAO; the concerted efforts by dozens of grassroots organisations which succeeded in persuading the World Bank to abandon its support for the Narmada dam in India; and the '50 Years is Enough' campaign against the Bank and the IMF, which involved activist organisations from around the world.

The work of Vandana Shiva and colleagues on biodiversity is another example. International institutions such as GATT and the FAO are currently being pressured by multinational corporations to recognise genetic resources as a 'universal heritage' (rather than a locally-controlled resource) to ensure the North's free access to raw materials. In opposition to this, Shiva and associates have developed a 'People's Biodiversity Conservation Action Plan' that would recognise local stewardship of genetic resources, monitor and analyse the activities of international agencies in this area, and encourage protection and regeneration

of biodiversity in farming and forest use.

Many of the contributors to this volume are involved in other programmes aimed at resisting the process of monoculturisation:

- Vandana Shiva is closely involved in the Chipko movement, which was founded in the 1970s in response to the massive deforestation taking place in the Himalaya. Over the last two decades, people from a number of small mountain communities have successfully slowed the destruction of several Himalayan forests.

- Members of the Norwegian Ecopolitical Community against the European Community (NØFF) successfully opposed Norway's entrance into the EC, on the grounds that it would lead to non-sustainable development patterns and the erosion of Norway's unique culture.

- Martin Khor and Mohamed Idris have been active in alerting people to the implications of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), the 'free trade' agreement which aims at making every corner of the planet a source of profit for transnational corporations. In the process, they point out, it will increase the disparities in wealth between North and South and hasten the depletion of natural resources worldwide.

It is absolutely critical that the movement to resist the conventional development model be as broad-based as possible. Single-issue pressure groups certainly have an important role to play, but they need to be based on an understanding of 'the bigger picture'. While it is of course extremely important, for instance, to block the construction of particular dams in particular parts of the world, or to prevent the destruction of particular areas of rainforest, it is equally important to lobby for funds for public education to show why the construction of large dams or the cutting down of rainforests is *in general* unsustainable. By linking

individual actions to a larger vision, the counter-development message will have far greater impact.

Equally, we need to encourage individuals and groups with broadly similar goals to collaborate and speak with a common voice, thus greatly increasing their impact. Not least, we need to bring together people working on environmental issues with those campaigning for social justice—thereby forging, in the words of Nicholas Hildyard, the new path of 'liberation ecology'.

Fostering small-scale alternatives

Countering further colonisation by the industrial monoculture is only half of the strategy needed if we are to move towards more sustainable ways of life. Equally important is the creation of many and diverse alternatives.

A smaller scale is critical if we are to adapt to natural systems rather than attempting to manipulate nature—and human needs—to fit techno-economic structures. Intrinsic to this approach is a fundamental humility concerning humanity's ability to control and manipulate the natural world. Instead of technological hubris we need to encourage a spiritual communion with all life. The psychological and spiritual vacuum we now try to fill by grasping for material possessions can be eliminated through a deeper connection with nature, stronger community ties, and the integration of work and leisure.

Many of the contributors to this volume are active in creating and nurturing such initiatives:

- In Sweden, Erni and Ola Friholt are trying to reinstate a sustainable way of life in Stocken, a small fishing village. They ride bicycles instead of driving a car, have reduced their personal consumption to 1950s levels, and run a café using mainly locally produced raw materials. They are working to create a locally-based alternative, by consciously detaching themselves from the global economic system.

- Märta Fritz describes the growing 'eco-village' movement in Sweden. These communities favour low water and energy

consumption, maximum levels of recycling, and the use of nontoxic building materials. And in stark contrast to the trends in mainstream culture (63% of Stockholm's dwellings are one-person homes), these villages seek to nurture a real sense of community.

- Stephanie Mills is working with others in the broad-based 'bioregional movement' to restore the ecological stability and diversity of the many bioregions in the United States. Part of her work is in the restoration of ecosystems which have been levelled by monoculturisation.

Appropriate technology

Many groups are working in the South to promote small-scale decentralised technologies that use local resources. The Ladakh Project and the indigenous Ladakh Ecological Development Group (LEDeG) have developed a number of effective technologies using solar energy, and have expanded on the traditional use of water power. S.M. Idris, Martin Khor and the Consumers' Association of Penang are also involved in supporting appropriate technology in both rural and urban areas of Malaysia. In Rajastan, India, Aman Singh is working with local villagers to resurrect successful small-scale technologies that have been swept aside by development and dismissed by scientific 'experts'.

At the governmental level, however, appropriate technology receives almost no support. Not one of the 'developing' nations has made solar energy the focus of its energy policy, despite the abundance of this free energy source in many areas of the South.

In most industrialised countries these technologies cannot compete with centralised energy sources like fossil fuels and nuclear power, which have benefited from decades of subsidies in the form of infrastructure investment and ignored environmental costs. Nowhere is this more true than in the United States, where direct and hidden subsidies for centralised energy technologies run to well over $50 billion a year. If there is to be any hope of restoring social and environmental balance, this situation must be gradually reversed, giving support instead to efforts

to promote a decentralised renewable energy infrastructure.

Many solar and small-scale hydro and wind power technologies lend themselves well to decentralised settlement patterns in both the North and South. The local or regional provision of basic needs such as food and energy would eliminate a large proportion of current transport costs. The savings on the construction and maintenance of infrastructure could be used to promote local development.

Alternatives in education

While education in nature-based societies emphasises the interconnections among diverse elements of the surrounding world, Western education compartmentalises fields of learning, leading to a narrowly-focused over-specialisation. Some encouraging trends have, however, begun to appear. Many respected institutions of higher learning in the West are implicitly acknowledging the limitations of specialised education, and are now using an interdisciplinary approach in some fields. For example, the Human Ecology Group at the University of Edinburgh, and the Energy and Resources Group at the University of California at Berkeley reduce the boundaries between such previously separate disciplines as the social and 'hard' sciences, leading to a more complete picture of the interdependence and complexity of the real world.

Other institutions have even more radically transformed their approach to education. A prime example is Schumacher College in England, which challenges the quantifying and mechanistic view of the world, and places emphasis on more holistic and spiritual learning. In the US, the California Institute of Integral Studies offers degree programmes in fields that synthesise East/West thought and values, while Antioch University in Seattle offers a programme which approaches diverse fields from a holistic, 'systems' perspective.

Synthesising traditional and post-industrial values

In the industrialised countries of the North, people have been dependent on the industrial system for so long that most have lost touch with past traditions. However, the seeds of a new way

of life are beginning to be planted.

In fields as diverse as hospice care for the dying and mediation as away of settling disputes, striking parallels are emerging between the most ancient and the most modern. Increasing numbers of people are choosing to eat wholefoods that are grown naturally, and are using age-old nature remedies for their health problems. There is a reawakened interest in storytelling, a renewed appreciation for physical work, and a growing preference for natural materials in clothing and construction. As in traditional, pre-industrial cultures, this new post-industrial culture lays great stress on the importance of community—on a sense of cooperation and interdependence with others and with local natural resources. Like traditional cultures, the new movement greatly values spiritual wisdom, a deep sense of our connection to the rest of life—of living in the here and now.

Rural populations of the South have a great deal to offer the North in all of these areas, as well as in such specific ways as attitudes towards time and property; social mechanisms of reciprocity and cooperation; the maintenance of communities that protect the interests of the young and the old; knowledge and technologies that have grown out of an intimate familiarity with a specific place; and the art of living within the limits of the natural world.

Even though we in the North can't 'go back' to living like the indigenous peoples of the Amazon rainforest or the Tibetan Plateau, we *can* learn from such societies. These cultures are, in fact, the only time-tested models of truly sustainable practices on Earth, yet they are rapidly disappearing in the name of 'progress.'

II

Environment and Development

DEVELOPMENT, TRADE AND THE ENVIRONMENT: A Third World Perspective

Martin Khor

Around the world, governments and citizens' groups alike are beginning to focus on a wide range of issues relating to the world environmental crisis and the survival of the Earth and humanity.

It is becoming increasingly clear, however, that the technological fix-it solutions favoured by the West are not enough. Indeed, they are not even of central importance to the solution of the environmental crisis. Instead, social, developmental and political issues need to take centre stage. For the main issues emerging in the ecological debate revolve around the control, distribution and use (or abuse) of the world's increasingly scarce natural resources.

Many people from the Third World are complaining that the agenda for reform has been too dominated by Northern interests, that the North is only interested in the physical and environmental aspects of the crisis, while neglecting the Third World's need for development. It is feared that focusing on technical aspects of ecological problems without putting them in the context of unequal North-South economic relations will lead to another form of domination over the Third World. The South could be asked to stop or slow down its development while the North, already enjoying high living standards, would continue its way of life with only minimal inconveniences from technological adjustment.

Threats to the well-being of the peoples and environments of the Third World will only worsen as a result of proposals contained in the Uruguay Round of GATT (General Agreement

on Tariffs and Trade). This trade agreement allows transnational companies major influence in many crucial areas previously denied them in Third World countries. It is very likely that the environmentally and socially exploitative effects of this GATT agreement will have a far greater impact than any constructive proposals put forward at the United Nations Conference on Environment and Development (UNCED), held in Brazil in 1992. The entire UNCED process, in fact, was seen by many as a cosmetic exercise set up by the developed countries to give the impression that they are seriously concerned about Third World problems.

The UNCED conference, and particularly the Global Forum, nevertheless provided a much needed opportunity for the Third World to present its analysis of the roots of the global environmental crisis as it manifests itself in the Third World, and for people there to advocate a different form of society and a different type of 'development'. It also provided a chance for the Third World to point out that its environmental problems must be seen not only from the level of the community or even the nation, but as an integral component of a global system of industrialism. This system shapes the way and the rate in which resources are used, and determines not only how environments are recreated or disrupted, but also how people's very lives are affected.

The following analysis focuses on Third World environmental problems as products of the importation of the Western system, on the exploitative transfer of resources from South to North, and on the negative effects on the Third World of the Uruguay Round of GATT. It also suggests steps which might be taken to bring a new environmental order into being.

The Conquest of the Third World

In Third World societies before colonial rule and the infusion of Western systems, people lived in relatively self-sufficient communities. For food they planted staple crops like rice or barley, tended animals, and fished and hunted; they supplied housing, clothing and other needs through small-scale industries

which made use of local resources and indigenous skills. The mode of production and style of life were in harmony with the natural environment.

Colonial political rule—accompanied by the imposition of new economic systems, new crops, industrial exploitation of minerals and participation in the world market (with Third World resources being exported and Western industrial products being imported)—changed the social and economic structures of Third World societies. The new structures, consumption styles and technological systems had become so in-built that after the attainment of political independence, the importation of Western values, products, technologies and capital not only continued but expanded. Third World countries became more and more tied into the world trading, financial and investment system. Transnational corporations were in the forefront, setting up trading and production bases in Third World countries and selling products and technologies to them. They were aided by an infrastructure of aid programmes funded by the rich-country governments, by multilateral institutions like the World Bank, and also by transnational banks, which loaned billions of dollars to finance expensive projects and highly capital-intensive imported technologies. They were also supported by foundations, research institutions and scientists in the rich countries, which sponsored and carried out research on new agricultural technologies which would 'modernise' the Third World—in other words create the conditions whereby the Third World would have to depend on the transnational companies for technology and inputs.

In order to pay for the import of modern technology and inputs, Third World countries were forced to export even more goods (mainly natural resources like timber, oil and other minerals) and export crops which took up a larger and larger portion of total land area. Economically, financially and technologically, Third World countries were sucked deeper and deeper into what has proved to be the whirlpool of the world economic system. In the process, the Third World has lost or is in the process of losing its indigenous products, resources and skills. Our peoples are losing their capacity for self-reliance, their

confidence, and in many cases the very resource base on which their survival depends. The world economic and technological systems are themselves facing crises. The Third World is now hitched onto these systems over which they have very little control. The survival and viability of most Third World societies will thus be put to the test in the next few decades.

There are numerous examples of how the Western system has resulted in the degradation of the environment and the deterioration of human health in the Third World:

Import of hazardous technologies and products

Many transnational companies have shifted their production operations to the Third World, where safety regulations are either very lax or nonexistent. Many industries are also shifting their sales promotion and markets to the Third World, where they can sell products of lower quality or products which are so toxic they are not allowed to be used in the rich countries themselves.

As a result, many Third World countries are now exposed to extremely toxic or dangerous technologies which could potentially cause great harm. The Bhopal gas tragedy, in which 3,000 lives were lost and another 200,000 people suffered disabilities, is the worst single example of what can happen when a Western transnational company adopts industrial safety standards far below acceptable levels in its home country. There are hundreds of other substandard industrial plants sold to the Third World (the Bataan nuclear plant in the Philippines, for example) or shifted there by transnationals to escape health and pollution standards in their home countries.

Hazardous products are also being pushed on the Third World in increasing volume. Examples include pharmaceutical drugs; contraceptives; pesticides banned years ago in European and American countries or in Japan, but sold by companies of these same countries to the Third World; cigarettes containing far higher levels of tar and nicotine than in the rich countries; and, most recently, milk products contaminated with radioactivity from the Chernobyl nuclear disaster. The health effects on Third World peoples are horrendous. For example, it is estimated that

40,000 people in the Third World die from pesticide poisoning each year. Moreover, millions of babies are also estimated to have died of malnutrition or illness through taking diluted or contaminated commercial milk, after their mothers gave up breast-feeding on being persuaded that bottle milk was superior.

The hazardous technologies and products imported from the rich countries also often displace indigenous technologies and products which may be more appropriate to meet the production and consumption needs of the Third World. Labour-intensive technologies which are in harmony with the environment while providing employment for the community (for instance, traditional fishing methods) are replaced with capital-intensive modern technologies which are often ecologically destructive. More appropriate products or processes (for example, breast-feeding) are replaced by modern products which are thrust upon the people through high-powered advertising, sales promotion and pricing policy. The Third World is thus in the process of losing many of its indigenous skills, technologies and products which are unable to stand up to the onslaught of the modern system.

The 'Green Revolution'

The imposition and penetration of the Western system has also changed the face of Third World agriculture. In many Third World societies, a large part of the lands planted with traditional food crops was converted into cash crops for export under the plantation system. When export prices are high, the incomes of export-crop farmers may be high; but when prices fall (as in the present period) these same farmers may be unable to buy enough food with their incomes, and many agricultural workers may lose their jobs.

In those areas where farmers still cultivate food crops, the so-called Green Revolution has had a tremendous impact. The Green Revolution is a package programme which aims at increasing production through the introduction of high-yielding seed varieties, high doses of chemical fertilisers and pesticides, agricultural machinery and irrigation. In many areas where this modern-package 'revolution' was implemented there was an

initial rise in production because more than a single crop could be produced in a year. But the rise in farmers' incomes was soon reduced by the increasing costs of imported chemical inputs and machinery. The pesticides used also exacted a heavy toll in thousands of poisoning cases. It is now found that the high-yielding varieties are increasingly susceptible to pest attack as the pests become resistant to the pesticides. Yields in some areas have begun to drop. Meanwhile thousands of indigenous rice varieties that had withstood generations of pest attacks have been wiped out. Many of these seed varieties are now located only in research laboratories, most of which are controlled by rich countries and international agencies. Third World farmers and governments will increasingly be at the mercy of the transnational food companies and research institutions—which have collected and patented seeds and germ plasm originating from the Third World.

Biotechnology

Biotechnology is becoming an increasingly important scientific weapon by which the First World can increase its domination of the Third World. Biotechnology alters the structure of the DNA within organisms in order to bring about desirable characteristics in plants and animals. Although it is a relatively new field, biotechnology has already had severely detrimental impacts on Third World economies.

Examples of this include: genetically engineered fructose, which has captured over 10% of the world sugar market and has caused sugar prices to fall, throwing tens of thousands of sugar workers in the Third World out of work; 'natural' vanilla beans—produced in the biotech labs of a Texas firm—which have eliminated the incomes of 70,000 people growing vanilla in Madagascar; and a new industrial process for producing natural gum discovered by a New York company, which cost Sudan its export market for gum arabic.

It is now estimated that biotechnology can find substitutes for $14 billion worth of Third World commodities now exported to the rich countries annually. Such a displacement could dramatically reduce the Third World's income.

Modern fishing technologies

The Third World's fishery resources have also been adversely affected by the importation of Western high-tech fishing technologies. In many Third World societies, fish is the main source of animal protein, and fishing used to be a major economic activity. In traditional fishing, the nets and traps were simple, and ecological principles were adhered to: the mesh size of nets were large enough so as not to trap small fish, and since breeding grounds were not disturbed, fish stocks could multiply. Fishing required hard work and tremendous location-specific knowledge, passed on through generations. Boats and nets were usually made from local materials; fishing—including fish preservation, mending of nets, making of boats, and so on—involved the whole community.

Then modern trawl fishing was introduced, in many cases as a result of aid programmes provided by rich countries. (In Malaysia, for instance, trawl fishing was introduced through a German aid programme.) There was a massive increase in the number of trawlers, usually owned by non-fishing businessmen and operated by wage-earning crews. There was gross overfishing, and much of the fish caught by trawlers was not used for human consumption but was sold instead to factories as feedmeal for animals. The criterion in trawl fishing was 'maximum catch in the short run for maximum present revenue'. The mesh size was usually so small that even small fish could be netted and sold. Destructive gear was used which scraped the bottom of the seabed and disturbed breeding grounds. As a result, there has been a depletion of fishery resources, and the catch for both traditional and trawl fishermen has declined in many parts of the Third World.

Riverine fishery resources have also been hit hard by technologies imported from the North. Toxic effluents from industrial estates kill off fish life, as well as poisoning villagers' water supplies. In the rice ponds, where farmers previously caught freshwater fish to supplement their diet, the pesticides introduced through the Green Revolution have also killed off fish life. This has threatened the livelihood of millions of small-scale fishermen in the Third World, while reducing an important

source of protein for the general population. In Malaysia, where fish used to be abundant and was considered a poor man's meat, marine seafood is now about the most expensive item on restaurant menus because of the depletion of marine life. For poor people, access to fish is now more and more restricted because of decreased quantity and escalating prices on the market.

Logging of tropical forests

Another Third World resource fast disappearing is the tropical forest. Traditionally the forests were inhabited by indigenous peoples practising swidden agriculture which—contrary to propaganda from the modern system—was an ecologically sound agricultural system causing minimal soil erosion in the hilly tropical terrain. This system has been threatened by massive logging activities as trees are chopped down by timber companies for export to the rich countries, or for conversion of primary forest to grazing land for cattle for the hamburger industry in the United States. Between 1900 and 1965, half the forest area in developing countries was cleared, and since 1965 the destruction of the forest has accelerated even more. Many millions of acres are destroyed or seriously degraded each year, and by the turn of the century little primary forest will be left.

The massive deforestation has multiple ecological and social consequences, including the loss of land rights and way of life (or even life itself) of millions of tribal peoples throughout the Third World; massive soil erosion due to the removal of tree cover, thus causing the loss of invaluable topsoil; much reduced intake of rainwater in catchment areas as the loss of tree cover increases water runoff to rivers; extensive flooding in rural and urban areas caused by excessive silting of river systems; and climatic changes due to increased carbon dioxide in the atmosphere caused by the loss of trees. Besides these effects, there is also the loss of biological diversity as plant and animal life disappears from these ancient forests.

Modern industrial plants and energy megaprojects

The introduction of Western consumer goods, industrial plants

and energy megaprojects has also greatly contributed to the loss of well-being in the Third World.

The indigenous small-scale industries of the Third World used to produce simple goods which were required to satisfy the basic needs of the majority of people: processed food, household utensils, footwear and clothes, furniture, simple houses and so on. The technology to manufacture these goods was simple and labour-intensive. Many of these indigenous industries have been displaced by the entry of modern products which, when heavily promoted through advertising and salesmanship, become glamourised, thus rendering local products unglamorous and low in status by comparison. With modern products capturing high market shares, capital-intensive industries (usually foreign-owned) set up base in the Third World and displace traditional locally-owned industries.

But many Third World countries were not content simply with modern consumer-goods industries. They also ventured into very expensive heavy industries and industrial projects such as steel mills, cement plants, and large infrastructure projects such as long highways, big bridges and super-tall buildings. These are projects and infrastructure copied from the cities of the rich countries. The political leaders of the Third World feel their countries need to have these super projects in order to become 'developed'.

To cater to the huge industrial plants and infrastructure, huge amounts of energy are required. So began the megaprojects in the energy sector, in particular large hydroelectric dams and nuclear powerstations. Each such project has its problems. The huge dams require the flooding of large tracts of land, causing the loss of forest and disruption to the livelihood and way of life of the many thousands of people living there. The dams themselves do not have a long lifespan due to siltation, so they are usually not viable financially; in other words, their costs far outweigh their benefits. There are health effects, as ecological changes associated with dams spread schistosomiasis disease (carried by snails) as well as malaria and other ailments. There is of course also the possibility of a major tragedy should the dam burst.

In the case of nuclear power plants, there is the possibility that

those plants sold to the Third World may not have the same standard of quality and safety as those installed in rich countries where there is stricter quality control and technical expertise. If a plant installed in a Third World country is found unsafe, the government has a dilemma: stop its operation and incur a huge loss, or continue using it but run the risk of a tragic accident. In the Philippines, Westinghouse Corporation built a nuclear plant for $2 billion but there are so many doubts about its safety that the Philippine government has decided to 'mothball' it. Even if a nuclear plant is initially declared safe enough to start operating, there is no guarantee against a serious accident. There is also the ongoing problem of disposing of its radioactive waste.

In all these huge industrial, infrastructural and energy projects, a lot of money is involved, often running to hundreds of millions or billions of US dollars. These projects are invariably marketed by transnational companies who stand to gain huge sums in sales and profits per approved project. Financing is arranged for by the World Bank, by transnational commercial banks, or by rich-country governments, usually under aid programmes. Such projects are usually inappropriate for genuine development, since they end up underutilised, grossly inefficient or too dangerous to use. Absorbing so much investment funding, they deprive communities of much-needed financing for genuine development projects, and moreover lead Third World nations into the external debt trap. Particularly in the case of dams, they cause widespread disruption and displacement of poor communities, especially indigenous peoples, who by the tens of thousands have to be 'resettled' as their forests and lands are flooded out.

The Drain of Resources from South to North

The above examples illustrate how the penetration of industrial-nation technologies and projects can result in disastrous consequences for Third World environments and peoples. But this is only part of a long historical process, which now has unfortunately intensified, in which environmental and other resources have been transferred from poor to rich countries. The control

of both technological capacity and the systems of world trade and finance has enabled the industrial countries to suck out forest, mineral and metal resources from the Third World, and to make use of its land and labour to produce the raw materials that feed into the machinery of industrialism. The rich nations—with around a fifth of world population—use up four fifths of world resources, a large portion of which is used for making luxury products. The Third World gets to use only 20% of resources. Since incomes are also unequally distributed within Third World nations, a large part of these resources are also used up in making or importing the same high-tech products as are enjoyed in the rich nations, and in importing capital-intensive technologies to produce these élite consumer goods. Thus, only a small portion of world resources flows towards meeting the basic needs of the poor majority in the Third World.

This is the ultimate environmental and social tragedy of our age: the scientific knowledge that could be properly used to provide for every human being's physical needs is being applied instead through industrial technology to take away resources from the Third World, largely for the production of superfluous goods. Meanwhile, the majority of Third World peoples sink deeper into the margins of survival.

Worse yet, the very processes of extracting Third World resources result in environmental disasters—deforestation, soil erosion, desertification, pollution of water supplies—as well as the horrible human toll in poisoning from toxic substances and in industrial accidents. The resource base on which communities have traditionally relied for both production and home needs has been rapidly eroded. Soils required for food production become infertile, forests which are home and life for indigenous peoples are logged or flooded out, water from the rivers and wells are clogged up with silt from deforestation or with toxic industrial effluents, and twigs and branches from trees used as a renewable energy supply disappear as the whole forest is axed by timbermen.

The transfer of resources from South to North takes place through many channels. First, there is the transfer of physical

resources, as logs and metals and oil are shipped from South to North. For example, the developed countries produce and keep 80% of the world's industrial wood but also import much of the rest of the world's timber harvest as well; only 20% of the world's industrial wood comes from tropical forests, but more than half of that is exported to the richest nations. Most of it is used for furniture, high-class joinery, housing, packing material, even matchsticks. The timber that is exported to rich countries is lost to Third World peoples who now find it difficult to get wood for essential use in making houses, furniture and boats.

Secondly, there is a transfer of financial resources in that the prices of Third World commodities (obtained from their environmental resources) are low and declining even more. Between $60 and $100 billion were lost to Third World countries per year in 1985 and 1986 alone due to the fall in commodity prices. In human terms, this means drastic cuts in living standards, massive retrenchments of workers, and big reductions in government budgets in many Third World countries.

Thirdly, many of the 'development projects' which lead to the loss of resources are financed by foreign loans. It is rare for these projects to generate sufficient returns to enable repayment of the debts. In the end, a country loses valuable foreign exchange and income in debt repayment. Moreover the Third World is rendered ever more dependent on the technologies and products of the industrial world, for which substantial amounts have to be paid for imports, royalties and inflated prices for spare parts, thus further draining away the resources of the Third World. Many Third World countries are sinking into the quagmire of the external debt/foreign technology trap.

The New GATT Agreement: Free Trade vs. Fair Trade

This deteriorating situation is being exacerbated by proposals in the current Uruguay Round of GATT. The United States and other developed countries intend to expand the powers of GATT (which formerly dealt only with the regulation of trade in goods) to include service industries. The major areas proposed

for inclusion are banking, insurance, information and communications, the media, professional services such as lawyers, doctors, tourist agencies, accountants and advertising.

Manufacturing and agriculture in many Third World countries are already largely controlled by transnational companies, either through investments or through purchases of their products from the world market. It is the service sector in the Third World which still remains basically in the hands of local companies. But as a result of GATT, we can predict that many of the service industries in the Third World will come under the direct control of transnational service corporations within a few years. This would mean the eradication of the last sectors in the Third World which are still controlled by national companies.

These multinational service companies will not only be given the freedom to trade and invest in the Third World, but will benefit from an additional clause called 'national treatment'. This means that any foreign company which wants to set up a base in the Third World in services should be given the freedom to do so and should be treated on terms which are no less favourable than those accorded a national or local company. For example, some Third World countries restrict the participation of foreign banks in the economy by giving only a limited number of licences to such banks, by allowing foreign banks to participate only in certain kinds of banking, or by prohibiting them from setting up branches in small towns so that local banks will have more of the deposit business. Now (under GATT), foreign banks are to be given total freedom; they will be treated just like a local company. We are going to see the marginalisation of local banks and the marginalisation of local financial and professional services.

If one looks very deeply into these processes, one can see that not only economic sovereignty and autonomy are at stake but the very cultures of the people of the Third World as well. Media companies and media owners in the United States or Australia may be given the freedom to set up businesses or to buy out media companies in the Third World—including television and the print media—thereby giving them a powerful influence over the cultures of Third World countries.

GATT will also affect people's health in the Third World. There is already a very big push by the commercial healthcare industry and the insurance companies of the Northern countries for the commercialisation of healthcare services in the Third World. The insurance companies and the big hospital establishments of the North are beginning to buy up hospitals and accelerate the process of commercialisation of Third World healthcare.

Third World countries may be under the impression that, if they give way to the developed countries in areas like services, investments and intellectual property rights, they may benefit in other areas. For instance, they may be given better access to the markets of the industrialised countries through lower tariffs. This may be only an illusion. The industrialised countries have violated similar bargains with Third World countries in the past.

Under GATT, it is not clear to what extent governments—not only in the Third World but even in the United States—will have the autonomy to establish environmental, occupational health and other safety regulations. Some of these regulations may be considered to be against the principles of free trade and free investment. For instance, a few years ago, Indonesia proposed to ban the export of rattan, which is a very important forest product. It is getting scarcer and Indonesia wanted to retain rattan for domestic use. This of course is welcomed by environmentalists who do not want to see the depletion of forest resources. Immediately, however, the United States and the European Community criticised the Indonesian government and said that the export ban was against the principle of free trade. They accused the Indonesian government of taking protectionist steps, and threatened retaliation.

A government could propose that under GATT rules there should not be international trade in toxic waste or in products which are banned (for sale in countries where they are produced) because they are considered dangerous (like pesticides, drugs and so on). Up until today, however, no developed country has put this on the agenda. Some Third World governments tried to put trade in toxic waste onto the agenda of GATT, but this has been ignored by the developed countries.

GATT could be used to protect the environment, but instead it is being used for the reverse. All responsible citizens in the world should fight against the concept that free trade in all circumstances is necessarily a good thing. We should fight for the principle of fair trade rather than the principle of free trade.

An Alternative Vision

The above analysis clearly show that there must be a radical reshaping of the international economic and financial order so that economic power, wealth and income are more equitably distributed, and so that the developed world will be forced to cut down on its irrationally high consumption levels. If this is done, the level of industrial technology will also be scaled down. There will be no need for the tremendous wastage of energy, raw materials and resources which now go towards the production of superfluous goods simply to keep 'effective demand' pumping and the monstrous economic machine going. If appropriate technology is appropriate for the Third World, it is even more essential as a substitute for environmentally and socially obsolete high-technology in the developed world.

But it is almost impossible to hope that the developed world will do this voluntarily. It will have to be forced to do so, either by a new unity of the Third World in the spirit of OPEC in the 1970s and early 1980s, or by an economic or physical collapse of the system.

In the Third World, there should also be a redistribution of wealth, resources and income, so that farmers have their own land to till and thus do not have to look for employment in timber camps or on transnational company estates. This will enable a redistribution of priorities away from luxury-oriented industries and projects towards the production of basic goods and services. With the poor given more resources, there would be an increasing demand for the production of such basic goods and services. With people given the basic facilities to fend for themselves, at least in terms of food crop production, housing and health facilities, Third World governments can reduce their coun-

tries' dependence on the world market to sell their resources.

Thus there can be a progressive reduction in the unecological exploitation of resources. With increasing self-reliance based on income redistribution and the growth of indigenous agriculture and industry, the Third World can also afford to be tough with transnationals; it should insist that those invited adhere to health and safety standards that now prevail in the industrial countries. It can reject the kind of products, technologies, industries and projects which are inappropriate for need-oriented and ecological development.

In development planning, the principle of 'sustainable development' should be adopted: the sparing, optimal use of non-renewable resources, the development of alternative renewable resources, and the creation of technologies, practices and products that are durable and safe and satisfy real needs, so as to minimise waste.

In searching for a new environmental and social order we should also realise that it is in the Third World that the new ecologically sound future of the world can be born. In many parts of the Third World and within each Third World nation there are still large areas of ecologically sound economic and living systems, which have been lost in the developed world. We need to recognise and identify these areas and rediscover the technological and cultural wisdom of our indigenous systems of agriculture, industry, shelter, water and sanitation, medicine and culture.

I do not mean here the unquestioning acceptance of everything traditional in the romantic belief in a past Golden Age. For instance, exploitative feudal or slave-based social systems also made life more difficult in the past. But many indigenous technologies, skills and processes that are harmonious with nature and community are still part-and-parcel of life in the Third World. These indigenous scientific systems are appropriate for sustainable development, and should be accorded their proper recognition and encouraged. They should be upgraded if necessary, but they first have to be saved from being swallowed up by the 'modern' system.

Third World governments and peoples in the developed world

have to reject their obsession with modern technologies, which absorb a bigger and bigger share of surplus and investment funds in projects like giant hydro-dams, nuclear plants and heavy industries which serve luxury needs. We must turn away from the obsession with modern gadgets and products which were created by the rich countries to mop up their excess capacity and their need to meet effective demand.

We need to devise and fight for the adoption of appropriate, ecologically sound and socially equitable policies to fulfill needs such as water, food, health, education and information. We need appropriate technologies and even more so the correct prioritising of what types of consumer products to produce. We can't accept 'appropriate technology' that produces inappropriate products. Products and technologies need to be safe to handle and use, they need to fulfill basic and human needs, and should not degrade or deplete the natural environment. And perhaps the most difficult aspect of the fight is the need to de-brainwash the people in the Third World from the modern culture which has penetrated our societies, so that lifestyles, personal motivations and status structures can be delinked from the system of industrialism, its advertising industry and creation of culture. And so the creation and establishment of a new economic and social order which is based on environmentally sound principles to fulfill human rights and the needs of people is not such an easy task, as we know too well. It may even be an impossible task, a challenge which cynics and even the goodhearted in their quiet moments may feel will end in defeat. Nevertheless, it is the greatest challenge in the world today, for it is tackling the issue of the survival of the human race and of the Earth itself. It is thus a challenge which we in the Third World readily accept. We hope that together with our friends in the developed countries, we will grow in strength to pursue the challenge for as long as required, to build the many paths towards a just and sustainable social and environmental order.

GLOBALISM, BIODIVERSITY AND THE THIRD WORLD

Vandana Shiva

Globalism, in the form of Western solutions to environmental problems, has suddenly emerged as a medicine for ecological disease in the South. The history that is being forgotten is that it was the emergence of an earlier globalism, in the form of colonialism, that initiated this environmental degradation in the first place. When Europe colonised 85% of the world, it began a worldwide rape of the Earth's resources. Previously, indigenous knowledge and social systems had ensured the protection of nature by treating vital natural resources as sacred and as held in common. Western reductionist science emerged as a perfect instrument to remove the barriers of sanctity whilst Western market economies were emerging to transform nature's commons into market commodities.

In the first part of this paper, I take India as an example to show how this indigenous sense of sacred natural resources held in common was broken down by the Western colonial powers. Then I will show how the process is being continued by the independent, Westernised governments which followed, and by major international agencies such as the FAO and the World Bank. In the second part of the paper I analyse in some detail the attrition and exploitation of the Earth's biodiversity—'the last frontier' of sacred resources held in common—by powerful commercial interests in the First World seeking to exploit the growing and lucrative biotechnology market.

Science versus nature

Bacon, writing in the late 16th century, has been called the 'father' of modern science. In Bacon's experimental method, there was a dichotomising between male and female, mind and

matter, objective and subjective, rational and emotional. Scientific knowledge and its consequent mechanical inventions do not 'merely exert a gentle guidance over nature's course; they have the power to conquer and subdue her, to shake her to her foundations'.

For Bacon, nature was no longer Mother Nature, but a female nature conquered by an aggressive masculine mind. This was eminently suited to the exploitation imperative for the growth of capitalism, concurrent with the widening horizons of the Westerners.

In contrast to the knowledge system created through the scientific revolution, ecological ways of knowing nature are necessarily participatory. Knowledge is ecological and plural, reflecting both the diversity of natural ecosystems and the diversity in cultures that nature-based living gives rise to. Throughout the world the colonisation of diverse peoples had at its root a forced subjugation of the ecological concepts of nature and of the Earth as the repository of the powers of creation. The symbolism of the Great Mother, creative and protective, has been shared across space and time, and ecology movements in the West today are inspired in large part by the recovery of the concept of Gaia, the Earth Goddess.

Parallel to the destruction of the concept of nature as sacred was the process of the destruction of nature as held in common by and for all. The commons were privatised and people's sustenance bases were appropriated to feed the engine of industrial progress and capital accumulation. The commons, which the Crown in England called 'wastelands', were not really waste. They were productive lands, providing extensive common resources for established peasant communities. The enclosure movement was the watershed which transformed people's relationship to nature and each other. The customary rights of people to use the commons were replaced by laws of private property. The Latin root of 'private' means, in fact, to deprive.

The fate of the forests was similar to that of the pastures. The Crown possessed the forests, while the peasants had common rights to forest produce. With the resource demand for capitalist

growth, a policy of deforestation was adopted. The peasants lost their common rights, and the Crown and lords of the manors enclosed their deforested land and parcelled it into large farms for lease. The policy of deforestation and the enclosure of the forest led to the largest single outbreak of popular discontent in the 17th Century. Between 1628 and 1631, entire regions were in a state of rebellion.

Colonial exploitation

This process was replicated a hundred or so years later in the rest of the colonised world. In India, the first Indian Forest Act was passed in 1865 by the Supreme Legislative Council, which authorised the government to declare forests and 'benap', or unmeasured lands, as reserved forests. The introduction of this legislation marks the beginning of what is called the scientific management of forests; it amounted basically to the formalisation of the erosion both of the forests and of the rights of local people to forest produce.

Forest resources—like other vital natural resources—had until then been managed as common resources with strict, though informal, social mechanisms for controlling utilisation to ensure sustained productivity. Besides the large tracts of natural forest that were maintained in this way, village forests and woodlets were also developed through careful selection of appropriate tree species.

Colonial forest management undermined these conservation strategies in two ways. Firstly, changes in the system of land tenure through the introduction of the *zamindari* system transformed village resources into the private property of newly-created landlords. People who satisfied their domestic needs from the collectively-owned village forests and grasslands had now to turn to natural forests. Secondly, large-scale felling of trees in natural forests to satisfy non-local commercial needs—such as shipbuilding for the British navy and sleepers for the expanding railway network—created an extraordinary force for destruction. After about half a century of uncontrolled exploitation, the need for monitoring it was finally realised.

The colonial response consisted of handing over ownership to the state and setting up a forest bureaucracy to regulate commercial exploitation and to conserve forests. What the bureaucracy in practice protected was forest *revenues*, not the forests themselves. This typically colonial interpretation of conservation generated severe conflicts on two levels. On the level of utilisation, the new management system catered only to commercial demands and ignored local basic needs. People were denied their traditional rights, which after prolonged struggles were occasionally granted as favours. On the conservation level, since the new forest management was concerned solely with forest revenues, ecologically unsound silvicultural practices were introduced. This undermined biological productivity of forest areas and transformed renewable resources into non-renewable ones.

Resistance movements

With the reservation of forests and the denial of the people's right of access to them, the villages created resistance movements in all parts of the country. The Indian Forest Act of 1927 sharpened the conflicts, and the 1930s witnessed widespread forest *satyagrahas* as a mode of nonviolent resistance to the new forest laws and policies: villagers ceremonially removed forest produce from the reserved forests to defy laws that denied them the right to these products. These nonviolent protests were suppressed with the might of arms. In Central India, Gond tribals were gunned down for participating in the *satyagraha*. In the Himalayan foothills dozens of unarmed villagers were killed and hundreds injured in Tilari village of Tehri Garhwal on May 30, 1930, when they gathered to protest against the forest laws. After enormous loss of life, the *satyagrahas* were finally successful in regaining some of the traditional rights of the village communities to various forest produce. But the forest policy and its revenue-maximising objective remained unchanged.

In independent India the same colonial forest management policy was continued but enforced with greater ruthlessness, which was justified in the name of development, national interest and economic growth. The threat to survival having become

more sinister, the response of the people has changed. Sporadic protests have become organised and sustained movements. Chipko is the most spectacular of these.

Chipko is a people's response to a threat to their survival. Beginning as a local grassroots movement, it has spread into the national and the transnational arenas, challenging global paradigms of resource use. While the first global environment meeting of the élite was taking place in Stockholm in 1972, the first grassroots ecology movement was emerging in remote villages in the southern foothills of the Himalayas. The villages were totally unaware of the global event taking place in Stockholm. Their environmental sensibilities were born of their own experience of increasing floods and landslides caused by deforestation; it was rooted in their cultural heritage, which instilled in them a deep respect for the awe-inspiring mountains and their magnificent forests and rivers.

The first Chipko action occurred in March 1974 in Reni village of the Garhwal Himalaya. A group of village women led by one Gaura Devi hugged the trees, challenging the hired loggers who were about to cut down trees for a sporting goods company. Ecological disasters had prepared the ground for this grassroots movement to protect the forests. For example, in July 1970 the Alaknanda valley, in which Reni village is located, had experienced a disastrous flood when the Alaknanda river inundated 1000 square kilometres of land and washed away a large number of bridges and roads. The Chipko movement spread rapidly through the valley. In February 1978 the activists in Henwal valley saved the Advani forests, and in December 1978 the forests of Badyargad were rescued. The news spread beyond Garhwal and in 1983-84, the Chipko strategy was used by activists of the Western Ghats to save the forests of other ecologically vulnerable mountain systems of India.

'Green globalism'

While Third World ecology movements like Chipko focus on people's rights, global prescriptions focus on international markets as a solution to the environmental crisis. The official

Tropical Forest Action Plan (TFAP), promoted by the World Bank and the UN's Food and Agricultural Organisation (FAO), is supposedly designed to halt rainforest destruction; in fact, it is fatally flawed and will actually accelerate forest loss. The plan is in effect a renewed effort at commercial exploitation of tropical forest. As movements like Chipko have shown, it is commercial forestry that was the root of forest destruction in the Third World. Yet, in the name of saving tropical forests, the World Bank and FAO are planning their final destruction.

In 1986 on the basis of the Indian experience I indicated that the plan would result in deforestation, not conservation. More recently the World Rainforest Movement has shown in a report that most projects under the FAO plan are speeding up rates of deforestation by commercial logging and industrial forestry. The plan proposes a 400-600% increase in industrial forestry in the Nepalese Himalayas. What the FAO/World Bank recommends as tropical forestry 'action' is precisely what people's action is resisting in order to save the forests of Amazonia and the Himalaya. The successful projects that this plan cites for 'greening' the Earth have, in practice, been projects for desertification of the Earth and destitution of the people.

Financing goes to increase industrial forestry plantations at the cost of food and forest needs of local populations. Eucalyptus, a pulpwood species, has been the World Bank's favourite monoculture crop. Single species and single commodity production plantations have been the basis of a green revolution in forestry. And like the Green Revolution in agriculture, monoculture plantations do not recover the life of the Earth, they endanger it. They displace diverse trees species which satisfy local needs for fodder, food, fertiliser, fuel and so on. 'Greening' with eucalyptus ends up being a prescription for desertification, as the high water demand and low nutrient return leaves impoverished soils and dry streams, rivers and wells. Everywhere in the world where eucalyptus plantations have been forced on people, peasants and tribals have resisted these forestry projects.

As in the Green Revolution, forestry projects financed by the World Bank have led to the exchange of ecological regeneration

principles for those relying on the investment logic of financial institutions. They have also replaced self-help activity with credits, loans and debt, and local genetic diversity with imported uniformity.

Biological diversity

Severe genetic erosion has taken place in recent years as a result of the above mentioned commercialisation of agriculture and forestry, which introduces genetic uniformity as a feature of production. Genetic erosion is an ecological hazard both because it leads to the extinction of life forms which have value in themselves, and because genetic uniformity breeds ecological vulnerability.

The objective for ecological conservation is to preserve species by incorporating diversity into production processes in agriculture and forestry. The imperative for ecological conservation of biodiversity is therefore to reshape commercial forces. However, there is a second approach to biodiversity which attempts to reshape the conservation movement to the logic of commercial forces.

This second kind of concern for the protection of genetic diversity can be called 'commercialised conservation'. The emergence of new biotechnologies has transformed the genetic richness of this planet into strategic raw material for the industrial production of food, pharmaceuticals, fibres, energy, and so on. Commercialised conservation measures the value of conservation in dollars and justifies it on grounds of its present or future profitability. It fails to see biodiversity as having an inherent ecological value in itself. It does not see the need to put an end to the expansion of production processes that wipe out genetic diversity and views biodiversity conservation only in terms of 'set-asides' and 'reserves'.

The recently circulated draft of a plan for the development of a global strategy for the conservation of biodiversity drawn up by the World Resources Institute (WRI) in collaboration with the International Union for the Conservation of Nature, the World Wide Fund for Nature, and the United Nations

Environmental Programme seems to fall in this category of commercialised conservation strategies.

The World Bank is actively pursuing the goal of a global Biological Diversity Action Plan. Towards this aim, a World Bank Task Force on Biodiversity has been set up. The strategy aims to set the stage for an International Biodiversity Decade, whose programme would integrate scientific, social, and political analyses related to living resource conservation and development.

However, the plan lacks both a political perspective as well as an ecological perspective on biodiversity conservation. It fails to address the causes of genetic erosion in the past, as well as threats posed to the maintenance of biodiversity in the future. The WRI plan states that 'Biodiversity is a global resource. All nations benefit from its conservation, yet the current threats are greatest in the developing countries that have severely restricted financial means available to undertake conservation projects.' A number of misconceptions and misrepresentations are evident within this statement: that *biodiversity is a global resource*; that *all nations benefit equally* from the utilisation of biodiversity; that the threats to biodiversity *arise solely within developing countries*; that *genetic erosion takes place because Third World countries have severely restricted financial means*; and that biodiversity conservation *is dependent primarily on money*.

These assumptions misrepresent the issue of biodiversity conservation in its full historical and political context. Biodiversity is not uniformly distributed across the world. It is concentrated in the tropical countries of the Third World, and is therefore primarily a Third World resource. Calling it a 'global resource' opens the door to expropriation of these resources by the North. The WRI approach paper, as well as World Bank task force country papers, avoid analysing the technological and political forces that have caused genetic erosion by leaving out all discussions of plant biodiversity in agriculture. Discussion is limited to biodiversity in forests. The exclusion of agriculture leaves out two critical aspects of biodiversity conservation. It excludes an understanding of how commercial forces have

contributed to the destruction of diversity in the past, and it blocks our perception of how the same commercial forces, with new technologies, need 'commercialised conservation' for their biological raw material supplies.

By neglecting to address issues of biodiversity as diversity of all life forms, the proposed action plan fails to see the necessity of incorporating principles of diversity into agricultural and industrial production. It instead proposes 'set-asides' and 'reserves' of wilderness areas as the primary instrument for conservation. However, it is being increasingly recognised that merely setting aside preserves in the remaining relatively undisturbed ecosystems will no longer suffice, both because such areas are too small to be sustainable and because rapid climatic changes that are taking place through processes like the greenhouse effect make these preserves impossible to maintain.

Genetic uniformity in agriculture

Genetic erosion in the Third World has resulted from development policies which have replaced indigenous agricultural and forestry practices based on genetic diversity with practices based on genetic uniformity. International aid has financed the destruction of genetic diversity through the spread of agricultural programmes like the Green Revolution. Corporations and institutions of the North have used the rich genetic diversity of the South as a free resource and a raw material input for their breeding programmes and seed industry. Genetically uniform seeds are then spread in the Third World as purchased 'inputs' for Green Revolution agriculture. This leads to genetic uniformity on the one hand and the creation of debt and financial dependence on the other. There are thus two kinds of 'donors' in biodiversity action. On the one hand there are the gene-rich Third World countries which have donated their genetic resources freely to Northern corporations or to public institutions controlled by the North. On the other hand, financial institutions in the North provide credit to Third World countries for inducing the switch from the use of freely accessible biodiversity to high-priced genetic uniformity purchased from TNCs.

All this is done in the name of agricultural or forestry development.

Agencies like the World Bank—which are now launching the biodiversity action plans—have for the past fifty years been financing the destruction of genetic diversity in the Third World. The World Bank has directly financed the replacement of genetically diverse cropping systems in the Third World with the ecologically vulnerable, genetically uniform monocultures of the Green Revolution. It has also contributed to genetic erosion through the centralised research institution controlled by CGIAR (the Consultative Group of International Agricultural Research) which was launched in 1970 on World Bank initiative and has its offices in the World Bank.

Centralised research and genetic uniformity go hand in hand in agriculture. It is therefore no surprise that the Centre for Wheat and Maize Improvement in Mexico became an instrument for the destruction of genetic diversity of maize, and that the International Rice Research Institute in the Philippines became an instrument for the destruction of genetic diversity of rice in Asia.

The growth of such international institutes was based on the erosion of the decentralised knowledge systems of Third World peasants and Third World research institutes. The centralised control of knowledge and genetic resources was not achieved without resistance. In Mexico, peasant unions protested against it. Students and professors at Mexico's national Agricultural College in Chapingo went on strike to demand a programme different from the one that emerged from the American strategy and more suitable to the small-scale poor farmers and to the diversity of Mexican agriculture.

These institutions and programmes—which the World Bank has launched for conservation—have contributed to genetic erosion. In fact, the continued spread of genetic uniformity is perversely viewed as a means for 'biodiversity' in programmes of the World Bank. As an illustration, John Spears of the World Bank has recommended intensification of monoculture practices in agriculture and forestry for 'preserving biological diversity' in

Asia. This schizophrenic approach to biodiversity—which adopts a policy of destruction of diversity in production processes and a policy of preservation in 'set-asides'—cannot be effective in conservation of species diversity. Biodiversity cannot be conserved unless production itself is based on a policy of preserving diversity.

Thus, World Bank financed 'social forestry' projects in India are, in effect, the replacement of genetically diverse agro-forestry species and crops with monocultures of eucalyptus plantations for the paper and pulp industry. As mentioned above, the globally launched Task Force on Biodiversity is similarly leading to the loss of genetic diversity worldwide.

The genetic resource drain

The International Bureau for Plant Genetic Resources (IBPGR), run by the CGIAR system, was specifically created for the collection and conservation of genetic resources. However, it has emerged as an instrument for the transfer of resources from the South to the North. While most genetic diversity lies in the South, of the 127 base collections of IBPGR, 81 are in the industrialised countries, 29 are in the CGIAR system (which is controlled by the governments and corporations of the industrialised countries) and only 17 are in national collections of developing countries. As Jack Kloppenberg has observed, 'There is empirical justification for the characterisation of the North as a finance-rich but "gene-poor" recipient of genetic largesse from the poor but "gene-rich" South.'

The biodiversity action plan could turn out to be a larger version of the South-to-North transfer of genetic resources that has taken place through institutions like IBPGR. The WRI, in fact, cites the IBPGR experience as a model for biodiversity action in its Tropical Conservation Financing Project. It states that the IBPGR works to 'ensure the collection and conservation and use of germ plasm so as to contribute to raising the standard of living and welfare throughout the world.' Experience, however, shows that IBPGR has not contributed to equal benefits worldwide, but has used Third World resources for the

benefit of industrialised countries.

Biotechnology

With the emergence of the new biotechnologies, the polarisation between the North and South around issues of biodiversity will probably be aggravated, since the North will try to continue to treat the biodiversity of the South as a freely accessible global resource while it attempts to privatise genetic resources through patent laws and intellectual property protection related to life forms. No biodiversity action plan can hope to reverse the threat of species extinction without a serious assessment of the causes of genetic erosion in the past, and the political threats to biodiversity in the future.

Biotechnology is being viewed by many environmentalists as a solution to the ecological problem of genetic erosion. Gus Speth of the World Resources Institute states that the 'world's emerging biotech industry provides many of the tools needed for environmentally sustainable growth.' However, the commercialisation of biodiversity through the biotech industry and its commercialised conservation creates new threats of ecological vulnerability, and new threats of political polarisation between the North and the South.

Corporate interests view patent protection as a prerequisite for innovations in biotechnologies. However, in the area of life forms, the granting of industrial patents is full of risks and controversies.

The first controversy in this area is related to ethics and respect for the integrity of life. As animal rights activist Joyce D'Silva has stated, 'What happened to our ethics? When I read statements from biotechnology researchers such as "transgenic animals can also be viewed as production systems for useful pesticides" or "new animals ought to be patentable for the same reason that robots ought to be patentable because they are both products of human ingenuity," I am worried. I believe that is unethical, profoundly so. Animals should not be viewed only from the point of view of human usefulness and profit.'

The main problem with viewing biotech as a miracle solution

to the biodiversity crisis is related to the fact that biotechnologies are, in essence, technologies for the breeding of uniformity in plants and animals. Biotech corporations do in fact talk of contributing to genetic diversity. As John Duesing of Ciba Geigy states, 'Patent protection will serve to stimulate the development of competing and diverse genetic solutions, with access to these diverse solutions ensured by free market forces at work in biotech ecology and seed industries.' However, the 'diversity' of corporate strategies and the diversity of life forms on this planet are not the same thing, and corporate competition can hardly be treated as a substitute for nature's evolution in the creation of genetic diversity.

In fact, it is the commercial logic of profit maximisation that is the primary cause for species extinction. The genetically engineered products of corporate biotechnology ventures will not only be genetically uniform and ecologically fragile in themselves, they will pose new ecological threats to other life forms. Introduced species usually have ecologically disruptive effects. The release of genetically modified plants and microorganisms into the environment threaten to become a new kind of environmental bio-hazard.

Profiting from genes

The issue of patent protection for modified life forms raises a number of unresolved political questions about ownership and control of genetic resources. The problem is that in manipulating life forms you do not start from nothing, but from pre-existing life forms which belong to others—perhaps through customary law. Genetic engineering does not create new genes, it merely relocates genes already existing in organisms. In making genes the object of value through the patent system, a dangerous shift takes place in the approach to genetic resources.

Most Third World countries view genetic resources as a common heritage. In most countries animals and plants were excluded from the patent system until recently, when the advent of biotechnologies changed concepts of ownership of life. With the new biotechnologies, life itself can now be owned. The

potential for gene manipulation reduces the organism to its genetic constituents. Centuries of innovation are totally devalued to give monopoly rights over life forms to those who manipulate genes with new technologies. The intellectual contribution of Third World farmers in the areas of conservation, breeding, domestication and development of plant and animal genetic resources—over many generations and for thousands of years—is entirely disregarded. The argument that intellectual property is only recognisable when performed in laboratories with white lab coats is fundamentally a racist view of scientific development.

Patenting genes makes biology stand on its head. Complex organisms—which have evolved over millennia in nature and through the contributions of Third World peasants, tribals and healers—are reduced to their parts, and treated as mere inputs into genetic engineering. Patenting of genes thus leads to a devaluation of life forms by reducing them to their constituents and allowing them to be repeatedly owned as private property. This reductionism and fragmentation might be convenient for commercial concerns, but it violates the integrity of life as well as the common property rights of Third World peoples. On these false notions of genetic resources and their ownership through intellectual property rights are based the 'bio-battles' at FAO and the trade wars at GATT.

The US government is using trade as a means of enforcing its patent laws and disregarding intellectual property rights of the sovereign nations of the Third World. The US government has accused countries of the Third World of engaging in 'unfair trading practice' if they fail to adopt US patent laws which allow monopoly rights in life forms. Yet it is the US government which has engaged in unfair practices related to the use of Third World genetic resources. It has freely taken the biological diversity of the Third World to spin millions of dollars of profits, none of which have been shared with Third world countries, the original owners of the germ plasm. For example, a wild tomato variety (*Lycopresicon chomrelewskii*) taken from Peru in 1962 has contributed $8 million a year to the American tomato processing industry by increasing the content of soluble solids. Yet none of

these profits or benefits have been shared with Peru, the original source of the genetic material.

According to Prescott-Allen, wild varieties contributed $340 million per year between 1976 and 1980 to the US farm economy. The total contribution of wild germ plasm to the American economy has been $66 billion, which is more than the total international debt of Mexico and the Philippines combined. This wild material is 'owned' by sovereign states and by local people.

As drug companies realise that nature holds rich sources of profit they have begun to covet the potential wealth of tropical moist forest as a source for medicines. For instance, the periwinkle plant from Madagascar is the source of at least 60 alkaloids which can treat childhood leukemia and Hodgkin's Disease. Drugs derived from this plant bring in about $160 million worth of sales each year. Another plant, from India (*Rauwolfa serpentina*), is the base for drugs which sell up to $260 million a year in the United States alone.

Unfortunately, it has been estimated that with the present rate of destruction of tropical forests, 20-25% of the world's plant species will be lost by the year 2000. Consequently, major pharmaceutical companies are now screening and collecting natural plants through contracted third parties. For instance, a British company, Biotics, is a commercial broker known for supplying exotic plants for pharmaceutical screening by inadequately compensating the Third World countries of origin. The company's officials have actually admitted that many drug companies prefer 'sneaking plants' out of the Third World rather than going through legitimate negotiating channels.

The United States National Cancer Institute has sponsored the single largest tropical plant collecting effort by recruiting the assistance of ethnobotanists who in turn siphon off the traditional knowledge of indigenous peoples without any compensation. Estimates of the value of the South's germ plasm for the pharmaceutical industry ranges from an estimated $1.7 billion now to $17 billion by the year 2000.

Third World biodiversity has made an immeasurable contri-

bution to the wealth of the industrialised countries, yet corporations, governments and agencies of the North continue to create legal and political frameworks to make the Third World pay for what it originally gifted. The emerging trends in global trade and technology work inherently against justice and ecological sustainability. They threaten to create a new era of bio-imperialism, built on the biological impoverishment of the Third World and the biosphere.

The intensity of this assault against Third World genetic resources can be seen from the pressure exerted by major drug and agricultural companies and their home governments on international institutions such as GATT and the FAO to recognise such resources as a 'universal heritage' in order to guarantee them free access to these raw materials. International patents and licensing agreements will increasingly be used to secure a monopoly over valuable genetic materials which can be developed into drugs, food and energy sources.

The Third World must urgently take stock of its genetic resources, particularly those contained in tropical forests. Rather than permit the North to 'rescue' the world's tropical forests for their own economic interests, conservation measures must be undertaken for the long-term benefit of the Third World and indigenous peoples. Due respect and recognition must be accorded to the knowledge and interests of indigenous peoples.

A 'People's Biodiversity Conservation Action Plan'

In contrast to the commercialised conservation plans for biodiversity, a 'people's biodiversity conservation plan' needs to take account of the following:

- Regenerating diversity must be the basis not only of conservation, but also of production in agriculture, forestry, energy and health care.
- The practice of diversity can only be ensured through decentralisation. Centralised systems of research, production and conservation force the spread of genetic uniformity and genetic erosion.

- The practice of diversity has been characteristic of indigenous systems of production in the Third World. Biodiversity conservation plans need to contribute to the regeneration of these systems.
- The knowledge and intellectual contributions of generations of Third World 'innovators', peasants, tribals and traditional healers need to be recognised and treated on an equal footing with innovation in the labs of industrialised countries to correct the distortions and inequities being introduced through patenting of life forms.
- The contribution of Third World germ plasm from wild as well as cultivated varieties to capital accumulation in industrialised countries needs to be recognised and compensated for in a just and ecological manner, not merely as tokenism. There is injustice inherent in current technological and trade practices, which treat genetic resources which come from the Third World as freely available while the same genetic material used by scientists and corporations in the North is protected by patents, treated as private property and sold back to the Third World at exorbitant costs.
- We must address the issue of 'ownership' of life through patents on life forms, with all its ethical, legal and political implications.
- Third World countries should prohibit all researchers, social scientists and scientists who are working for foreign interests from conducting research on and/or collecting genetic resources. Existing contracts or agreements to do research, screening and collecting of genetic germ plasm should be terminated to stop the transfer of valuable germ plasm to the North and to safeguard the heritage of the Third World.
- All countries should introduce legislation and institutional safeguards to protect genetic resources.
- The activities of all transnational corporations in this field need to be systematically monitored.
- Countries should also systematically monitor and analyse the activities of international agencies like GATT, FAO, the World Intellectual Property Organisation and the International

Union for the Protection of New Varieties of Plants. These international organisations are dominated by the Northern countries and have been used by them to rob the Third World of its resources and the rights of Third World peoples.

- We need to encourage and provide incentives for local research, identification and documentation of genetic resources, and should set up national gene banks free from transnational corporation and foreign government funding, technical assistance, control and involvement. South-to-South cooperation and assistance in the setting up of gene banks and research should be encouraged.

DEVELOPMENT FALLACIES

Edward Goldsmith

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The 'development' currently imposed by the industrialised nations on the Third World is producing a whole series of interconnected negative impacts on the very people the process purports to help. In this paper, I will discuss two important strands in this complex weave of causes and effects: how 'aid' mainly benefits the industrialised world via the opening up of Third World markets for its manufactured goods, and the connections between development and population increase in the Third World.

The Fallacy of Aid

Those with a superficial knowledge of the development process often remain convinced that aid is designed to help the peoples of the Third World. Even many environmental institutions still appear to believe this and persist in campaigning for increased aid. Yet, surely, if the governments of the industrial countries were really concerned with the welfare of the people of the Third World, they would have provided some of their vast food surpluses (which cost hundreds of millions of dollars to store) to the starving people of Africa—even if this would not have solved any long-term problems. Alternatively, they could have spent on famine relief the money which US farmers are now paid not to produce food.

Needless to say, no politician has suggested we do anything of the sort. On the contrary, in Britain in 1985-86, in the face of the worst and most widespread famine Africa has ever known, our government actually reduced its aid to the people of that continent, so that, as John Madeley notes, 'There is more in the kitty for better off countries such as Turkey and Mexico' (which,

unlike the countries of Africa, have the money with which to buy British manufactured goods).

This ability to buy goods from the industrialised countries is the crux of the matter. Indeed, the US Department of Agriculture admits that American food aid is a means of creating a demand for imports from the US. 'Food aid,' it declares, 'can pave the way for US commercial exports.' For example, in 1956–58, United States food aid to 17 overseas markets was $3.1 billion, and commercial sales of all goods was $3.6 billion. Two decades later, food aid from the United States to these same countries was only $756 million, and commercial sales had grown to $43 billion.

Aid and trade

One of the main reasons why aid is sound commercial practice is that much of it is officially tied to sales of manufactured goods. In the same way that colonies were once forced to buy their manufactured goods from the country that had colonised them, today's recipients of aid must spend much of the money they receive (money that is supposed to relieve poverty and malnutrition) on irrelevant manufactured goods that are produced by the donor countries. What is more, if they dare refuse to buy any of our manufactured goods or to sell us some resource—generally, because they want to keep it for themselves or to conserve it for the future—they are immediately brought to heel by the simple expedient of threatening to cut off further aid, on which they have become increasingly dependent.

Thus, a few years ago, a World Health Organisation study revealed that only a minute fraction of commercial pharmaceutical preparations were of any real therapeutic use. Bangladesh, one of the poorest countries of the world, decided to take the study seriously and announced that it would ban all superfluous drugs. The US government immediately reacted by threatening to withhold food aid if Bangladesh discriminated in this way against US pharmaceutical manufacturers. So too, in 1979, the Bangladesh government decided to stop selling rhesus monkeys (a threatened species) to a US company called Mol Enterprises

for experimentation in its laboratories. The US government's response was, as *New Scientist* notes, 'swift and strong' and 'even included a suggestion that American aid could be cut off if Bangladesh refused to honour its contract with Mol Enterprises, the monkey importers.'

The British government behaved in a similar manner with the government of India by threatening to cut off aid if India did not go ahead with plans to buy 21 Westland helicopters at a cost of £60 million—an effort which, it is encouraging to note, was bitterly opposed by responsible elements within the Overseas Development Administration.

All this is simply a slightly more sophisticated means of achieving what Commodore Perry achieved by bombarding Nagasaki in order to force the Japanese to trade with America, and what Britain achieved by going to war with China so as to force it to buy opium from British merchants in India.

Bretton Woods

It was at the Bretton Woods Conference in 1944, held under US leadership, that aid was institutionalised as the industrialised world's principal tool of economic colonialism. At that conference, 44 nations agreed to set up the key international institutions. They were: the International Monetary Fund (IMF); the World Bank (IBRD); and the General Agreement on Tariffs and Trade (GATT). These highly interconnected 'agencies' formed a single integrative structure for manipulating world trade, which until the early seventies was basically dominated by the United States of America. The original role of the IMF was to make sure that member nations pegged their currency to the US dollar or to gold (72 percent of world gold supplies were in the possession of the US). This expedient would, among other things, make it difficult for Third World debtors to get out of their financial obligation to the Western banking system by manipulating their currencies.

The World Bank's first function was to reconstruct Europe's shattered economy after World War II. Its second function was to prevent the recurrence of a 1929-style slump by systematically

expanding the Western economy. Significantly, as Susan George writes in *A Fate Worse than Debt*, Article 1 of the IMF charter describes six objectives, the principle being: 'to facilitate balanced growth of international trade and, through this, contribute to high levels of employment and real income and the development of productive capacity... To seek the elimination of exchange restrictions that hinder the growth of world trade.'

She goes on to comment, 'Even those objectives described in the first Article that may appear strictly financial are, in fact, geared to a single overriding objective: the growth and development of world trade.'

As a result, the World Bank soon moved into the business of Third World development (its main activity). It has built roads, harbours, ports, and so on—to supply the infrastructure required to enable the importation of manufactured products and the export of raw materials and agricultural produce. It then invested heavily in energy generation, in particular in hydropower, the adverse consequences of which have been documented in our book *The Social and Environmental Effects of Large Dams*.

More recently, since the 1970s, the Bank has played a leading role in financing the commercialisation of agriculture in the Third World and, in particular, the substitution of export-oriented plantations and livestock-rearing schemes for traditional subsistence farming designed to feed local people. In doing this, it has made a massive contribution to the growth of poverty and famine in Africa and South and Southeast Asia.

The role of GATT, the third of the institutions set up at Bretton Woods, was to liberalise trade and, hence, to ensure that Third World countries did not try to manufacture locally what they could buy from Western countries—that is, indulge in highly frowned-upon 'import substitution'.

IMF conditionalities

The IMF has complemented the work of GATT in this respect. Loans, either from the IMF itself or the World Bank, have only been provided to governments that have undertaken to observe

the IMF 'conditionalities'. This has meant above all, abolishing import quotas and reducing import tariffs to a minimum. This prevents Third World countries from protecting their fledgling industries against competition from the established and highly capitalised enterprises of the industrial world—industries that during the early stages of their own development were themselves well-protected from foreign competition, and many of which still are.

Third World governments have also been required to devalue their currencies to make their exports more attractive to the industrialised countries—which means they must pay more for their imports. They are also required to abolish expenditure on social welfare and, in particular, on food subsidies which are often badly needed to protect the mass of the population from the disruptive effects of the rapid socio-economic changes that development inevitably brings about. Such expenditure is seen as being better spent on Western imports or on building up a country's industrial infrastructure.

If the Fund were really interested in the fate of the people of the Third World, it would not cut down on food subsidies to the poorest people of the world, most of whom only need food handouts because they have been deprived of their land to make way for large-scale development schemes (largely funded by the West), and the import of nonessential items—armaments being a prime example. Yet, as Susan George notes, 'The IMF consistently demands that its pupils make drastic reductions in civil spending, but arms budgets remain untouched. When asked about this anomaly, Fund personnel recoil and explain in pained tones that such measures would be "interfering in the internal affairs of sovereign nations" (which is exactly what the Fund does every working day).'

Similarly, the IMF could insist on a purge on corruption in Third World governments and, in particular, 'capital flight', which could be responsible for the loss of as much as $100 billion a year.

Apart from being made to devalue their currencies and cut social expenditure, Third World governments must also undertake to mechanise their food production—that is, to adopt the

'Green Revolution', thus providing an important market for Western agricultural machinery and agro-chemicals. They must also replace subsistence agriculture with export-oriented agriculture so as to provide the West with agricultural produce. (Third World countries must export in any case to pay for the capital equipment they need to mechanise their agriculture and to finance the mass of manufactured goods that now flows into their countries.)

This package of policy prescriptions has been imposed on Third World countries by all the multilateral development banks. Rupesinghe, for example, quotes a report by the Asian Development Bank on SE Asia's economy: 'Countries must move away from inefficient import substitution policies and free the economy of import controls and price controls. The Green Revolution must be promoted as a "genuine dynamic force" of economic development. Agribusiness should be invited to cooperate in a country's drive towards self-sufficiency. Resource allocations must shift from domestic production to export crops for the world market. Local support, generous tax incentives, profit registrations, should be provided for foreign investors, and legislation must be enacted to create a climate of stability for foreign investment.'

Recycling capital

Since the early seventies, the amount of capital pumped into the Third World to finance such development policies has increased massively, as has the destruction it has financed. One reason for this capital expenditure is the need to recycle the vast sums of money accumulated by the OPEC countries back into the Western economic system.

This is fully admitted by the US government in one of its publications: 'In the 1970s the large increase in petroleum prices gave rise to large amounts of what were called petrodollars, since petroleum was (and still is) paid for in dollars. Commercial bankers were enjoined by the United States and international agencies such as the International Monetary Fund to reloan or recycle these dollars to keep the international economy from

collapsing. This they did to a fault, giving rise to what later came to be known as the international debt crisis.'

Unfortunately, the process is about to be repeated, since, with the aid of the World Bank, we now plan to recycle, via the economies of Third World countries, Japan's annual $80 billion surplus—which is equivalent to the OPEC surpluses of the late 1970s.

The impact that the vast development schemes (which alone can sop up all that money) must inevitably have on the already devastated environment of the Third World is too awful to contemplate.

The Fallacy of Development and Population Stability

An essential reason why economic development cannot help combat malnutrition and famine is that it must inevitably give rise to a population explosion. The experience has been the same everywhere. As soon as a traditional society embarks on the path of economic development, its population simply explodes. It happened in Britain, where the population was under 8 million when the Industrial Revolution began, and where it increased by more than 7 times before it eventually stabilised. It is happening today wherever economic development occurs throughout the Third World.

Our reaction to this problem is always the same. Population growth is interpreted in such a way as to make it appear amenable to a technological solution—the only solution the North is organised to provide. It is the only solution that involves producing the sort of hardware that the corporations into which our society is organised can manufacture; the only type of solution, in fact, that is 'economic' and hence politically acceptable.

The World Bank estimates that to achieve 'a rapid fertility decline in Sub-Saharan Africa would mean increasing the amount of money spent on 'family planning' by 20 times by the end of the century.' Just think how the export of contraceptive pills, condoms, IUDs and other forms of birth-control gadgetry will rocket. Is it possible to imagine a more 'economically viable'

and 'politically expedient' solution? But what is the point of providing vast numbers of men and women with expensive birth-control devices if, as happens to be the case, they want the children whose birth these devices are designed to prevent? The answer is clearly none at all.

Stable populations

We tend to forget that the populations of traditional societies were stable for centuries, if not millennia. They had to be, in order to preserve their social structure and their physical environment. The reasons for that stability are clear.

To begin with, traditional societies exploited a wide range of cultural strategies—such as taboos against sexual activity during lactation and during the first years of widowhood, or the prohibition against widow remarriage among certain castes in India—which are intended to minimise population growth. However, as a society's social structure and cultural pattern are destroyed by the process of economic development, such population control strategies can no longer operate, which means that the population in question simply grows out of control.

The population of traditional societies is stable for another reason, namely that each individual belongs to an extended family and lineage group which provide an extraordinary degree of security. What is more, each individual has a right to the land they and their family occupy by virtue of their status as a member of these groupings. In addition, the agricultural methods used are designed to maximise security even at the cost of limiting yields.

Development changes all that. In fact, it shatters every aspect of traditional life. Indeed, it is a process which, as Robertson notes, is 'more likely to generate unhappiness, violence and tyranny than social harmony.' Esenstadt also considers that because 'modernisation entails continual changes in all major spheres of a society, [this] means, of necessity, that it involves processes of disorganisation and dislocation, with the continual development of social problems, cleavages and conflicts between various groups and movements of protest and resistance to

change. Disorganisation and dislocation thus constitute a basic part of modernisation, and every modern and modernising society has to cope with them.'

In particular, development destroys a society's cultural pattern and its associated social structure. The society thus disintegrates and becomes atomised, as in the industrialised world today. Such a society can no longer govern itself, nor provide its members with the security that it previously provided: instead it must now be governed by a government bureaucracy, which previously would have no *raison d'etre*. Such a bureaucracy, however, can never compensate people for the inestimable social capital provided to them by the social groupings to which they previously belonged. Nor can participation in the formal economy, usually as grossly underpaid casual workers, compensate people for the loss of their land—which is inevitably taken over to accommodate more economic land uses. All this creates the most terrible misery and insecurity, and in order to survive, people are forced to seek an alternative strategy for providing themselves with some sort of security, however precarious. One such strategy is to have more children, who can be hired out as labourers or who can even be trained to beg and steal in the cities.

Malthusian dogma and the 'demographic transition'

Interestingly enough, one of the official explanations of the population explosion is that, with development, food production increases, which means that more food is available to the local population which, in a true Malthusian manner, can be counted upon to breed up to the available food supplies. The opposite, however, seems to be true. Thus, although food production has increased in, for example, both India and Zimbabwe in the last decade, this has not meant that more food has been made available to the local population. On the contrary, the food has mainly been produced for export or for consumption in the cities and, in reality, as Banerjee and Kothari and Jackson point out, less food is available to the rural masses. This was also the case in Ireland, when, during the eighteenth and early nineteenth centuries, the population exploded from two to eight

million. During that period much of the arable land was taken away from the peasants by the big estates, with the result that the peasants had to rely on the potato, the only crop that could feed a family from the small area of degraded land that remained at its disposal. During the course of the 19th Century, an increasing proportion of food produced in Ireland was exported to England; the exports were in no way reduced during the famine, which killed something like two million people and forced another two million to seek refuge beyond the seas.

The truth seems to be that, in an atomised society at least, the population explodes not when there is more food to eat (as conventional wisdom tells us) but when, on the contrary, there is less food to eat.

Of course, we are assured that development will provide people with a new form of security, one provided by membership in the growing formal economy. As people become more secure, we are told, they will then have fewer children, as has happened in the West. What the development industry does not tell us, however, is that it is economic development that created the insecurity in the first place.

To assume that the 'demographic transition' will occur in the Third World is in any case an act of faith. We are not at all sure why the population rate has fallen in the West. Is the fall in fact due to increased security? Or are other factors implicated, such as the fear of the future which looks ever grimmer? Or even the serious pollution of human spermatozoa which has radically reduced the sperm count of young males in the Western world and made a considerable proportion of them 'functionally sterile'?

Moreover, the economy of the Third World is not expanding nearly fast enough to absorb the growing hordes of unemployed in the cities and is never likely to; hence the security that participation in the formal economy could provide is available to an ever smaller proportion of the population. Indeed, the Third World can never conceivably attain the level of material prosperity we know at present in the West, which has indeed been associated (however superficially) with a reduction in fertility.

What is certain is that the much anticipated 'demographic transition' is not occurring in the Third World today. As Lester Brown notes: 'The "demographic transition" that has marked the advance of all developed countries may be reversed for the first time in modern history. African countries have now moved beyond the first stage of this transition, with the equilibrium between high birth and death rates. But virtually all remain stuck in the second stage, with high birth rates and low death rates. In this stage, population growth typically peaks at three percent or so per year.'

If the rate of population growth has fallen slightly in the dry tropics today, it is probably because of an increased death rate from famine, malnutrition and the diseases to which underfed people are particularly vulnerable. Indeed, it is only through such crude means that development can help control the very population explosion that it has itself brought about.

Even if the demographic transition did occur, it could not conceivably solve the real problem. A growing population is not intolerable *per se* but because of the increasing impact it must have on the natural environment. This impact is greatly magnified by the increase in material consumption made possible by economic development. To seek to reduce population by systematically encouraging economic development is thus self-defeating since it can only increase consumption and thus environmental destructiveness.

THE PRESSURE TO MODERNISE

Helena Norberg-Hodge

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Why do traditional societies break down upon their first sustained contact with the modern world?

The easy answer is that Western culture is intrinsically preferable—that blue jeans are simply better than homespun robes, the nuclear family better than the extended family.

My own view is very different. I believe that the most important reason for the breakdown of traditional cultures is the *psychological* pressure to modernise. I have come to this conclusion through almost two decades of close contact with the people of Ladakh, or 'Little Tibet'.

Much of the critique of conventional development has focused on the political and economic forces that foist modernisation on unprepared cultures, while the psychological side is largely neglected. And yet no one can deny the profound impact of glamourised Western images on the minds of young people who reject their own culture in favour of the 'American Dream'. Rambo and Barbie Dolls are making their way to the most remote corners of the world, with disastrous results.

This paper discusses some of the less obvious and insidious ways in which modernisation is carried to traditional cultures. I focus on the impact of the media, advertising and tourism, as well as the effects of Western-style education and economic models. Although most of my examples are drawn from Ladakh, virtually identical pressures are affecting people throughout the developing world.

The modern world comes to Ladakh

Ladakh is a high-altitude desert on the Tibetan Plateau in northernmost India. To all outward appearances, it is a wild and in-

hospitable place. In summer the land is parched and dry; in winter it is frozen solid by a fierce unrelenting cold. Harsh and barren, Ladakh's landforms have often been described as a 'moonscape'.

Almost nothing grows wild—not the smallest shrub, hardly a blade of grass. Even time seems to stand still, suspended on the thin air. Yet here, in one of the highest, dryest and coldest inhabited places on earth, the Ladakhis have for a thousand years not only survived, but prospered. Out of barren desert they have carved verdant oases—terraced fields of barley, wheat, apples, apricots and vegetables, irrigated with glacial meltwater brought many miles through stone-lined channels. Using little more than stone-age technologies and the scant resources at hand, the Ladakhis established a remarkably rich culture, one which met not only their material wants, but their psychological and spiritual needs as well.

Until 1962, Ladakh remained almost totally isolated from the forces of modernisation. In that year, however, in response to the conflict in Tibet, a road was built by the Indian Army to link the region with the rest of the country. With it came not only new consumer items and a government bureaucracy, but a first misleading impression of the world outside. Then, in 1975, the region was opened up to foreign tourists, and the process of 'development' began in earnest.

Speaking the language fluently from my first year in Ladakh, I have been able to observe almost as an insider the effect of these changes on the Ladakhis' perception of themselves. Within the space of a little more than a decade, feelings of pride gave way to what can best be described as a 'cultural inferiority complex'. In the modern sector today, most young Ladakhis—the teenage boys in particular—are ashamed of their cultural roots and desperate to appear modern.

Tourism

When tourism first began in Ladakh, it was as though people from another planet suddenly descended on the region. Looking at the modern world from something of a Ladakhi perspective, I became aware how much more successful our culture looks

from the outside than we experience it on the inside.

Each day many tourists would spend as much as a hundred dollars—an amount roughly equivalent to someone spending fifty thousand dollars a day in America. In the traditional subsistence economy, money played a minor role, and was used primarily for luxuries—jewelry, silver, and gold. Basic needs—food, clothing and shelter—were provided for without money. The labour one needed was free of charge, part of an intricate web of human relationships.

Ladakhis did not realise that money played a completely different role for the foreigners, that back home they needed it to survive, that food, clothing and shelter all cost money—a lot of money. Compared to these strangers, the Ladakhis suddenly felt poor.

This new attitude contrasted dramatically with the Ladakhis' earlier self-confidence. In 1975, I was shown around the remote village of Hemis Shukpachan by a young Ladakhi named Tsewang. It seemed to me that all the houses we saw were especially large and beautiful. I asked Tsewang to show me the houses where the poor people lived. Tsewang looked perplexed a moment, then responded, 'We don't have any poor people here.'

Eight years later I overheard Tsewang talking to some tourists. 'If you could only help us Ladakhis,' he was saying, 'we're so poor.'

Besides giving the illusion that all Westerners are multi-millionaires, tourism and Western media images also help perpetuate another myth about modern life—that we never work. It looks as though our technologies do the work for us. In industrial society today, we actually spend *more* hours working than people in rural, agrarian economies. But that is not how it looks to the Ladakhis. For them, work is physical work: ploughing, walking, carrying things. A person sitting behind the wheel of a car or pushing buttons on a typewriter doesn't appear to be working.

One day I spent ten hours writing letters. I was exhausted, stressed, and had a headache. That evening, when I complained about being tired because of having worked so hard, the Ladakhi

family I was staying with laughed; they thought I was joking. In their eyes I had not been working. I had been sitting in front of a table, nice and clean, no sweat on my brow, pushing a pen across a piece of paper. This was not work.

Media images

Development has brought not only tourism, but also Western and Indian films and, more recently, television. Together they provide overwhelming images of luxury and power. There are countless tools and magical gadgets. And there are machines—machines to take pictures, machines to tell the time, machines to make fire, to travel from one place to another, to talk with someone far away. Machines can do everything for you; it's no wonder the tourists look so clean and have such soft, white hands.

Media images focus on the rich, the beautiful, and the brave, whose lives are endless action and glamour. For young Ladakhis, the picture is irresistible. It is an overwhelmingly exciting version of an urban 'American Dream', with an emphasis on speed, youthfulness, super-cleanliness, beauty, fashion and competitiveness. 'Progress' is also stressed: humans dominate nature, while technological change is embraced at all costs.

In contrast to these utopian images from another culture, village life seems primitive, silly and inefficient. The one-dimensional view of modern life becomes a slap in the face. Young Ladakhis—who are asked by their parents to choose a way of life that involves working in the fields and getting their hands dirty for very little or no money—feel ashamed of their own culture. Traditional Ladakh seems absurd compared with the world of the tourists and film heroes.

This same pattern is being repeated in rural areas all over the South, where millions of young people believe modern Western culture to be far superior to their own. This is not surprising: looking as they do from the outside, all they can see is the material side of the modern world—the side in which Western culture excels. They cannot so readily see the social or psychological dimensions—the stress, the loneliness, the fear of growing old. Nor can they see environmental decay, inflation, or unemploy-

ment. On the other hand, they know their own culture inside out, including all its limitations and imperfections.

In Ladakh and elsewhere in the South, the sudden influx of Western influences has caused some people—particularly the young men—to develop feelings of inferiority. They reject their own culture wholesale, and at the same time eagerly embrace the new one. They rush after the symbols of modernity: sunglasses, Walkmans and blue jeans—not because they find those jeans more attractive or comfortable, but because they are symbols of modern life.

Modern symbols have also contributed to an increase in aggression in Ladakh. Young boys now see violence glamourised on the screen. From Western-style films, they can easily get the impression that if they want to be modern, they should smoke one cigarette after another, get a fast car, and race through the countryside shooting people left and right!

It has been painful for me to see the changes in young Ladakhi friends. Of course they don't all turn violent, but they do become angry and less secure. I have seen a gentle culture change—a culture in which men, even young men, were not in the slightest bit ashamed to cuddle a baby or to be loving and soft with their grandmothers.

Western-style education

No one can deny the value of real education—the widening and enrichment of knowledge. But today in the Third World, education has become something quite different. It isolates children from their culture and from nature, training them instead to become narrow specialists in a Westernised urban environment. This process has been particularly striking in Ladakh, where modern schooling acts almost as a blindfold, preventing children from seeing the very context in which they live. They leave school unable to use their own resources, unable to function in their own world.

With the exception of religious training in the monasteries, Ladakh's traditional culture had no separate process called 'education'. Instead, education was the product of a person's intimate

relationship with their community and their ecosystem. Children learned from grandparents, family and friends, and from the natural world.

Helping with the sowing, for instance, they would learn that on one side of the village it was a little warmer, on the other side a little colder. From their own experience children would come to distinguish between different strains of barley and the specific growing conditions each strain preferred. They learned to recognise even the tiniest wild plant and how to use it, and how to pick out a particular animal on a faraway mountain slope. They learned about connection, process, and change, about the intricate web of fluctuating relationships in the natural world around them.

For generation after generation, Ladakhis grew up learning how to provide themselves with clothing and shelter; how to make shoes out of yak skin and robes from the wool of sheep; how to build houses out of mud and stone. Education was location-specific and nurtured an intimate relationship with the living world. It gave children an intuitive awareness that allowed them, as they grew older, to use resources in an effective and sustainable way.

None of that knowledge is provided in the modern school. Children are trained to become specialists in a technological, rather than an ecological, society. School is a place to forget traditional skills, and worse, to look down on them.

Western education first came to Ladakhi villages in the 1970s. Today there are about two hundred schools. The basic curriculum is a poor imitation of that taught in other parts of India, which itself is an imitation of British education. There is almost nothing Ladakhi about it.

Once, while visiting a classroom in the capital, Leh, I saw a drawing in a textbook of a child's bedroom that could have been in London or New York. It showed a pile of neatly folded handkerchiefs on a four-poster bed and gave instructions as to which drawer of the vanity unit to keep them in. Many other schoolbooks were equally absurd and inappropriate. For homework in one class, pupils were supposed to figure out the angle of

incidence that the Leaning Tower of Pisa makes with the ground. Another time they were struggling with an English translation of *The Iliad*.

Most of the skills Ladakhi children learn in school will never be of real use to them. In essence, they receive an inferior version of an education appropriate for a New Yorker. They learn from books written by people who have never set foot in Ladakh, who know nothing about growing barley at 12,000 feet or about making houses out of sun-dried bricks.

This situation is not unique to Ladakh. In every corner of the world today, the process called 'education' is based on the same assumptions and the same Eurocentric model. The focus is on faraway facts and figures, on 'universal' knowledge. The books propagate information that is meant to be appropriate for the entire planet. But since only a kind of knowledge that is far removed from specific ecosystems and cultures can be universally applicable, what children learn is essentially synthetic, divorced from the living context. If they go on to higher education, they may learn about building houses, but these houses will be of concrete and steel, the universal box. So too, if they study agriculture, they will learn about industrial farming: chemical fertilisers and pesticides, large machinery and hybrid seeds. The Western educational system is making us all poorer by teaching people around the world to use the same industrial resources, ignoring those of their own environment. In this way education is creating artificial scarcity and inducing competition.

In Ladakh and elsewhere, modern education not only ignores local resources, but worse still, robs children of their self-esteem. Everything in school promotes the Western model and, as a direct consequence, makes children think of themselves and their traditions as inferior.

A few years ago, Ladakhi schoolchildren were asked to imagine their region in the year 2000. A little girl wrote, 'Before 1974, Ladakh was not known to the world. People were uncivilised. There was a smile on every face. They don't need money. Whatever they had was enough for them.' In another essay a child wrote, 'They sing their own songs like they feel disgrace, but

they sing English and Hindi songs with great interest... But in these days we find that maximum people and persons didn't wear our own dress, like feeling disgrace.'

Education pulls people away from agriculture into the city, where they become dependent on the money economy. Traditionally there was no such thing as unemployment. But in the modern sector there is now intense competition for a very limited number of paying jobs, principally in the government. As a result, unemployment is already a serious problem.

Modern education has brought some obvious benefits, like improvement in the literacy rate. It has also enabled the Ladakhis to be more informed about the forces at play in the world outside. In so doing, however, it has divided Ladakhis from each other and the land and put them on the lowest rung of the global economic ladder.

Local economy vs. global economy

In the past individual Ladakhis had real power, since political and economic units were small and each person was able to deal directly with the other members of the community. Today, 'development' is hooking people into ever-larger units. In political terms, each Ladakhi has become one of 800 million, and, as part of the global economy, one of several billion.

In the traditional economy, everyone knew they had to depend directly on family, friends and neighbours. But in the new economic system, one's political and economic interactions take a detour via an anonymous bureaucracy. The fabric of local interdependence is disintegrating as the distance between people increases.

So too are traditional levels of tolerance and cooperation. This is particularly true in the villages near Leh, where disputes and acrimony within close-knit communities and even families have dramatically increased in the last few years. I have even seen heated arguments over the allocation of irrigation water, a procedure that had previously been managed smoothly within a cooperative framework.

As mutual aid is replaced by a dependence on faraway forces,

people begin to feel powerless to make decisions over their own lives. At all levels passivity, even apathy, is setting in; people are abdicating personal responsibility. In the traditional village, for example, repairing irrigation canals was a task shared by the whole community. As soon as a channel developed a leak, groups of people would start working away with shovels patching it up. Now people see this as the government's responsibility, and will let a channel go on leaking until the job is done for them. The more the government does for the villagers, the less they feel inclined to help themselves.

In the process, Ladakhis are starting to change their perception of the past. In the early days, people would tell me there had never been hunger in Ladakh. I kept hearing the expression *tungbos zabos*: 'enough to drink, enough to eat'. Now, particularly in the modern sector, people can be heard saying, 'Development is essential; in the past we couldn't manage, we didn't have enough.'

The cultural centralisation that occurs through the media is also contributing to this passivity, as well as to a growing insecurity. Traditionally, village life included lots of dancing, singing and theatre. People of all ages joined in. In a group sitting around the fire, even toddlers would dance, with the help of older siblings or friends. Everyone knew how to sing, to act, to play music. Now that the radio has come to Ladakh, people do not need to sing their own songs or tell their own stories. Instead, they can sit and listen to the best singer, the best storyteller. But the result is that people become inhibited and self-conscious. They are no longer comparing themselves to neighbours and friends, who are real people—some better at singing but perhaps not so good at dancing—and one is never as good as the stars on the radio. Community ties are also broken when people sit passively listening to the very best rather than making music or dancing together.

Artificial needs

Before the changes brought by tourism and modernisation, the Ladakhis were self-sufficient, psychologically as well as materially.

There was no desire for the sort of development that later came to be seen as a 'need'. Time and again, when I asked people about the changes that were coming they showed no great interest in being modernised; sometimes they were even suspicious. In remote areas, when a road was about to be built, people at best felt ambivalent about the prospect. The same was true of electricity. I remember distinctly how, in 1975, people in Stagmo village laughed about the fuss that was being made to bring electric lights to neighbouring villages. They thought it was a joke that so much effort and money was spent on what they took to be a ludicrous gain: 'Is it worth all that bother just to have that thing dangling from your ceiling?'

Two years ago, when I arrived in the same village to meet the council, the first thing they said to me was, 'Why do you bother to come to our backward village where we live in the dark?' They said it jokingly, but it was obvious they were ashamed of the fact they did not have electricity.

Before people's sense of self-respect and self-worth had been shaken, they did not need electricity to prove they were civilised. But within a short period the forces of development so undermined people's self-esteem that not only electricity, but Punjabi rice and plastic have become needs. I have seen people proudly wear wristwatches they cannot read and for which they have no use. And as the desire to appear modern grows, people are rejecting their own culture. Even the traditional foods are no longer a source of pride. Now when I'm a guest in a village, people apologise if they serve *ngamphe* instead of instant noodles.

Surprisingly, perhaps, modernisation in Ladakh is also leading to a loss of individuality. As people become self-conscious and insecure, they feel pressure to conform, to live up to the idealised images—to the American Dream. By contrast, in the traditional village, where everyone wears the same clothes and looks the same to the causal observer, there seems to be more freedom to relax and be who you really are. As part of a close-knit community, people feel secure enough to be themselves.

As local economic and political ties are broken, the people around you become more and more anonymous. At the same

time, life speeds up and mobility increases, making even familiar relations more superficial and brief. The connections between people are reduced largely to externals. A person comes to be identified with what they have rather than what they are, and disappear behind their clothes and other belongings.

A people divided

Perhaps the most tragic of all the changes I have observed in Ladakh is the vicious circle in which individual insecurity contributes to a weakening of family and community ties, which in turn further shakes individual self-esteem. Consumerism plays a central role in this whole process, since emotional insecurity contributes to a hunger for material status symbols. The need for recognition and acceptance fuels the drive to acquire possessions—possessions that will make you somebody. Ultimately, this is a far more important motivating force than a fascination for the things themselves.

It is heartbreaking to see people buying things to be admired, respected, and ultimately loved, when in fact the effect is almost inevitably the opposite. The individual with the new shiny car is set apart, and this furthers the need to be accepted. A cycle is set in motion in which people become more and more divided from themselves and from one another.

I've seen people divided from one another in many ways. A gap is developing between young and old, male and female, rich and poor, Buddhist and Muslim. The newly created division between modern, educated expert and illiterate, 'backward' farmer is perhaps the biggest of all. Modernised inhabitants of Leh have more in common with someone from Delhi or Calcutta than with their own relatives who have remained on the land, and they tend to look down on anyone less modern. Some children living in the modern sector are now so distanced from their parents and grandparents that they don't even speak the same language. Educated in Urdu and English, they are losing mastery of their native tongue.

Around the world, another consequence of development is that the men leave their families in the rural sector to earn money

in the modern economy. The men become part of the technologically-based life outside the home and are seen as the only productive members of society. In Ladakh, the roles of male and female are becoming increasingly polarised as their work becomes more differentiated.

Women become invisible shadows. They do not earn money for their work, so they are no longer seen as 'productive'. Their work is not included as part of the Gross National Product. In government statistics, the 10% or so of Ladakhis who work in the modern sector are listed according to their occupations; the other 90%—housewives and traditional farmers—are lumped together as 'non-workers'. Farmers and women are coming to be viewed as inferior, and they themselves are developing feelings of insecurity and inadequacy.

Over the years I have seen the strong, outgoing women of Ladakh being replaced by a new generation—women who are unsure of themselves and extremely concerned with their appearance. Traditionally, the way a woman looked was important, but her capabilities—including tolerance and social skills—were much more appreciated.

Despite their new dominant role, men also clearly suffer as a result of the breakdown of family and community ties. Among other things, they are deprived of contact with children. When they are young, the new macho image prevents them from showing any affection, while in later life as fathers, their work keeps them away from home.

Breaking the bonds between young and old

In the traditional culture children benefited not only from continuous contact with both mother and father, but also from a way of life in which different age groups constantly interacted. It was quite natural for older children to feel a sense of responsibility for the younger ones. A younger child in turn looked up to the older ones with respect and admiration, and sought to be like them. Growing up was a natural, non-competitive learning process.

Now children are split into different age groups at school.

This sort of leveling has a very destructive effect. By artificially creating social units in which everyone is the same age, the ability of children to help and to learn from each other is greatly reduced. Instead, conditions for competition are automatically created, because each child is put under pressure to be just as good as the next one. In a group of ten children of quite different ages, there will naturally be much more cooperation than in a group of ten twelve-year-olds.

The division into different age groups is not limited to school. Now there is a tendency to spend time exclusively with one's peers. As a result, a mutual intolerance between young and old has emerged. Young children nowadays have less and less contact with their grandparents, who often remain behind in the village. Living with many traditional families over the years, I have witnessed the depth of the bond between children and their grandparents. It is clearly a natural relationship, with a very different dimension from that between parent and child. To sever this connection is a profound tragedy.

Similar pressures contribute to the breakdown of the traditional family. The Western model of the nuclear family is now seen as the norm, and Ladakhis are beginning to feel ashamed about their traditional practice of polyandry, one of the cultural controls on population growth. As young people reject the old family structure in favour of monogamy, the population is rising significantly. At the same time, monastic life is losing its status, and the number of celibate monks and nuns is decreasing. This too contributes to population increase.

Ethnic conflict

Interestingly, a number of Ladakhis have linked the rise in birth rates to the advent of modern democracy. 'Power is a question of votes' is a current slogan, meaning that in the modern sector, the larger your group, the greater your access to power. Competition for jobs and political representation within the new centralised structures is increasingly dividing Ladakhis. Ethnic and religious differences have taken on a political dimension, causing bitterness and envy on a scale hitherto unknown.

This new rivalry is one of the most painful divisions that I have seen in Ladakh. Ironically, it has grown in proportion to the decline of traditional religious devotion. When I first arrived, I was struck by the mutual respect and cooperation between Buddhists and Muslims. But within the last few years, growing competition has actually culminated in violence. Earlier there had been individual cases of friction, but the first time I noticed any signs of group tension was in 1986, when I heard Ladakhi friends starting to define people according to whether they were Buddhist or Muslim. In the following years, there were signs here and there that all was not well, but no one was prepared for what happened in the summer of 1989, when fighting suddenly broke out between the two groups. There were major disturbances in Leh bazaar, four people were shot dead by police, and much of Ladakh was placed under curfew.

Since then, open confrontation has died down, but mistrust and prejudice on both sides continue to mar relations. For a people unused to violence and discord, this has been a traumatic experience. One Muslim woman could have been speaking for all Ladakhis when she tearfully told me, 'These events have torn my family apart. Some of them are Buddhists, some are Muslims, and now they are not even speaking to each other.'

The immediate cause of the disturbances was the growing perception among the Buddhists that the Muslim-dominated stated government was discriminating against them in favour of the local Muslim population. The Muslims for their part were becoming anxious that as a minority group they had to defend their interests in the face of political assertiveness by the Buddhist majority.

However, the underlying reasons for the violence are much more far-reaching. What is happening in Ladakh is not an isolated phenomenon. The tensions between the Muslims of Kashmir and the Hindu-dominated central government in Delhi, the Hindus and the Buddhist government in Bhutan, and the Buddhists and the Hindu government in Nepal, along with countless similar disturbances around the world, are, I believe, all connected to the same underlying cause. The present develop-

ment model is intensely centralising, pulling diverse peoples from rural areas into large urban centres and placing power and decision-making in the hands of a few. In these centres, job opportunities are scarce, community ties are broken, and competition increases dramatically. Young men in particular, who have been educated for jobs in the modern sector, find themselves engaged in a competitive struggle for survival. In this situation, any religious or ethnic differences quite naturally become exaggerated and distorted. In addition, the group in power inevitably has a tendency to favour its own kind, while the rest often suffer discrimination.

Most people believe that ethnic conflict is an inevitable consequence of differing cultural and religious traditions. In the South, there is an awareness that modernisation is exacerbating tensions; but people generally conclude that this is a temporary phase on the road to 'progress', a phase that will only end once development has erased cultural differences and created a totally secular society. On the other hand, Westerners attribute overt religious and ethnic strife to the liberating influence of democracy. Conflict, they assume, always smouldered beneath the surface, and only government repression kept it from bursting into flame.

It is easy to understand why people lay the blame at the feet of tradition rather than modernity. Certainly ethnic friction is a phenomenon which predates colonialism and modernisation. But after nearly two decades of firsthand experience on the Indian subcontinent, I am convinced that 'development' not only exacerbates tensions but in many cases actually creates them. As I have pointed out, development causes artificial scarcity, which inevitably leads to greater competition. Just as importantly, it puts pressure on people to conform to a standard Western ideal—blonde, blue-eyed, beautiful and rich—that is impossibly out of reach.

Striving for such an ideal means rejecting one's own culture and roots—in effect, denying one's own identity. The inevitable result is alienation, resentment and anger. I am convinced that much of the violence and fundamentalism in the world today is a product of this process. In the industrialised world we are

becoming increasingly aware of the impact of glamorous media and advertising images on individual self-esteem—resulting in problems that range from eating disorders like anorexia and bulimia, to violence over high-priced and 'prestigious' sneakers and other articles of clothing. In the South, where the gulf between reality and the Western ideal is so much wider, the psychological impacts are that much more severe.

The old culture and the new

There were many real problems in the traditional society and development does bring some real improvements. However, when one examines the fundamentally important relationships—to the land, to other people, and to oneself—development takes on a different light. Viewed from this perspective, the differences between the old and the new become stark and disturbing. It becomes clear that the traditional nature-based society, with all its flaws and limitations, was more sustainable, both socially and environmentally. It was the result of a dialogue between human beings and their surroundings, a continuing coevolution that meant that—during two thousand years of trial and error—the culture kept changing. Ladakh's traditional Buddhist worldview emphasised change, but change within a framework of compassion and a profound understanding of the interconnectedness of all phenomena.

The old culture reflected fundamental human needs while respecting natural limits. And it worked. It worked for nature, and it worked for people. The various connecting relationships in the traditional system were mutually reinforcing, and encouraged harmony and stability. Most importantly of all, having seen my friends change so dramatically, I have no doubt that the bonds and responsibilities of the traditional society, far from being a burden, offered a profound sense of security, which seems to be a prerequisite for inner peace and contentedness. I am convinced that people were significantly happier before development than they are today. And what criteria for judging a society could be more important: in social terms, the well-being of the people; in environmental terms, sustainability.

By comparison, the new Ladakh scores very poorly when judged by these criteria. The modern culture is producing an array of environmental problems that, if unchecked, will lead to irreversible decline; socially, it is leading to the breakdown of community and the undermining of personal identity.

At my lectures in Europe and North America, people often ask the same question. Having seen pictures of the wide uninhibited smiles of the Ladakhis and the beauty of the traditional art, architecture and landscape contrasted with the meanness and spiritual poverty of the modern sector, they say, 'How can the Ladakhis possibly want to give up their traditional way of life? They must want the change, there must have been some flaw in the traditional culture that makes them want to abandon it. It can't have been that good.'

It is easy to understand why people make such assumptions. Had I not spoken the language fluently in my first year in Ladakh, had I not been lucky enough to live closely with the Ladakhi people, I would almost certainly thought the same way. But the Ladakhis I lived with were content; they were not dissatisfied with their lives. I remember how shocked they used to be when I told them that in my country, many people were so unhappy that they had to see a doctor. Their mouths would drop open, and they would stare in disbelief. It was beyond their experience. A sense of deep-rooted contentedness was something they took for granted.

If the Ladakhis had been eager to adopt another culture, they could easily have done so. Leh was for centuries a centre of trans-Asian trade. The Ladakhis themselves traveled both as pilgrims and traders, and were exposed to a variety of foreign influences. In many instances they absorbed the materials and practices of other cultures, and used them to enhance their own. But it was never a question of adopting another culture wholesale. If someone from China came to Leh, the result was not that the young suddenly wanted to put on Chinese hats, eat only Chinese food, and speak the Chinese language.

As I have tried to show, the pressures that lead to the breakdown of a culture are many and varied. But the most important

elements have to do with the psychological pressures that create a sense of cultural inferiority, and the fact that people cannot have an overview of what is happening to them as they stand in the middle of the development process. Modernisation is not perceived as a threat to the culture. Each change that comes along usually looks like an unconditional improvement; there is no way of anticipating the negative long-term consequences. Since people have almost no information about the impact development has had in other parts of the world, it is only in looking back that any destructive effects become obvious.

By now, most Ladakhis deem development necessary. And although the traditional society compares so favourably with the new, it was of course not perfect; there was certainly room for improvement.

But does development have to mean destruction? I do not believe so. I am convinced that the Ladakhis and other traditional peoples can raise their standard of living without sacrificing the sort of social and ecological balance that they have enjoyed for centuries. To do so, however, they would need to maintain their self-respect and self-reliance. They would need to build on their own ancient foundations rather than tearing them down, as is the way of conventional development.

This paper is based on excerpts from Helena Norberg-Hodge's book, Ancient Futures: Learning from Ladakh *(Sierra Club Books, San Francisco, and Rider Books, London, 1991).*

THE THIRD WORLD: A Crisis of Development

S. M. Mohamed Idris

Today, after many years of political independence, after so-called 'Development Decades', after all the efforts of United Nations agencies, after the hundreds of pious declarations on aid, trade and development, and after the millions and millions of pages printed and published on development—after all these phenomena, most of the people in the Third World continue to be poor, unemployed, and homeless; and at this very moment, millions of children are starving to death.

The Consumers' Association of Penang (CAP) in Malaysia has tried to set an example amongst Third World countries by tackling the issues of pollution and environmental deterioration, and by looking for solutions to the problems of meeting basic human needs (such as food, nutrition, and health) and business malpractices.

In the course of carrying out these efforts, some people have asked us what the alternatives are for the future. What sort of development can we have which will not destroy the environment or damage our health, which does not waste resources, which protects consumers from exploitation, which provides for the basic needs of ordinary people, and which at the same time results in human happiness and peace of mind (instead of all the mental stresses, hypertension and alienation which modern industrialised people seem to suffer)?

Clearly, these questions are framed in the light of bitter, first-hand experience of the negative impact of the Western development model on Third World societies.

The Western Monoculture

In the social and cultural spheres, the industrial world seems to have a great hold over the Third World. Third World countries have consciously or unconsciously imported models of education, communications, health care, housing, and transportation from the industrial countries. Most of these models are profoundly unsuitable and inappropriate for solving the problems of the majority of people in the Third World. Instead, these models have mainly benefited a small élite. For instance, billions of dollars are spent on imported motor cars and billions more on building roads and bridges, while public transport systems remain inadequate in most Third World countries.

The minds and motivations of Third World people are also increasingly influenced by the media and fashion industries of the industrial countries. As television programmes, films, videos, records, books and magazines produced in the industrial countries invade every nook and corner of the Third World, the culture and ways of life of the people and the community are disrupted. Traditional community dances give way to disco and break-dance, and traditional musical forms surrender to the beat of Michael Jackson or his local imitators. A large section of Third World society—from the business and middle class right down to the worker and farmer—excitedly watch the latest antics on 'Dallas' and 'Dynasty', or on the dozens of Hong Kong versions of these American programmes. Coffee shop conversations in many Third World countries are often dominated by the latest developments in the Hollywood film star circuit, or the newest contest between sportsmen and sportswomen in Wimbledon or Wembley.

The marketing of status and style

The consumer culture of the North now pervades almost all aspects of life in the South. This culture is in reality a way of thinking and a way of life generated by advertisements, cinema shows, pop songs, magazines, comics, and other channels of the mass media. The objective of the consumer culture is to persuade

the consumer to buy more and more products, whether these products are good for her or not.

As a result of this bombardment, the consumer is made to feel insecure unless she smokes a cigarette, unless he buys a certain brand of haircream, unless she uses a certain brand of lipstick, unless they change motorcars once every two years, unless the colour of the curtains at home matches the colour of the carpet.

Status and style are being attached to such products as cigarettes, cosmetics, soft drinks, artificial baby food, and fashionable clothes, and such activities as disco dancing and motorbike racing. A large part of the already meagre salary of the lower-income groups is being siphoned off to such worthless goods and activities, leaving little money and time for food and healthy recreation. Schoolchildren prefer to spend their pocket money on sweets and soft drinks rather than on wholesome food. And, tragically, many mothers have given up breast-feeding due to the false association of the bottle with status. The poor baby is the one to suffer.

A whole new generation of people has been brought up with the idea that their main aim in life should be grabbing for themselves as many things as possible. Thus, people want to possess more and better things than their neighbours or their friends because this gives them higher status and prestige. As rational people, we should not fall into the trap of this consumer culture for it is often harmful; it generates egoism, individualism and rivalry between individuals who measure their worth according to the size of their house, the make of their car, the beauty of their wives or the wealth of their husbands, and the intelligence of their children.

The mass media

Information determines how we think, how we view ourselves and how we view others. Throughout history, information has been the special privilege of the chosen few. In ancient times, it was the scribes and the priestly class who controlled information. Very often it was shrouded in myth and secrecy and in a language that the common people did not understand. In this

manner, information and access to it was controlled and excluded from the vast majority. Inevitably it was used as a tool to mislead and subjugate people.

In our modern times, information systems are no better. They are now very sophisticated, neatly-packaged but complicated, and controlled by the multinational corporations. For example, it is an undisputed fact that over 90 percent of the foreign news generated by the world's newspapers is provided by just four Western news agencies: United Press International (UPI), Associated Press (AP), Reuters, and Agence France Presse (AFP). Similarly, TV programmes beamed into all Third World homes are heavily Western and American. Information systems are now controlled by the mass media, which is both oligopolistic and alien.

The immense power of the mass media has enabled it to mould beliefs, attitudes, values and lifestyles. It has become the purveyor of a global culture, a culture based on a pattern of consumption which is compulsive and devoid of meaning, a culture which is the same everywhere in food, dress, song, leisure and outlook.

This consumer culture has not only managed to destroy what good there is in our indigenous cultures and societies, it has alienated our young, robbing them of their confidence and dignity. This form of cultural domination distorts the personality and engenders an inferiority complex in our people.

All Third World societies have their own indigenous systems of communication through social activities, songs and folklore. But modern mass media has now taken over this function. Often the only information—the only form of truth—is provided by this media. People then tend to believe the information fed by the mass media and the messages conveyed by it. As a result, they discard good wholesome nutrition for fast foods promoted by advertisers. They abandon traditional skills in household arts and crafts, because they have come to believe that modern plastic furniture, mats and utensils are far superior.

In our societies—with immense poverty, illiteracy and superstition, with vast differences separating the urban rich and the rural poor—people are told that their problems are due to

population explosion, traditionalism and indolence. The root causes, the *real* reasons for their poverty, malnutrition and deprivation are not explained. They are not linked to modern lifestyles, economic structures and social inequalities. Too often, it is not in the interest of the people in power to disseminate accurate and truthful information. In this climate, true information is denied and manipulated, and the average citizen is misled by misinformation and disinformation.

Modern addictions

The stress and alienation of the Western lifestyle, combined with pressure from the mass media, leads people to use addicting and harmful substances. Addiction to drugs, tobacco and alcohol is a great social menace, and is sapping the energy and destroying the health of our youth. In 1978, there were an estimated 300,000 to 400,000 drug addicts in Malaysia. An increasing proportion of 'respectable' adults are dependent on tranquilisers, pep pills and sleeping pills, many of which have dangerous side effects. Millions of Malaysians smoke their way to lung cancer, heart attacks and other tobacco-related ailments. Alcohol addiction also takes its toll, whether in deaths caused by illegal *samsu*, or liver destruction caused by the higher-class spirits.

The consumption of sugar and other sweetened products has also increased over the years. The reason for this is the reckless manner in which people have abandoned themselves to the manipulations of manufacturers. It is not pointed out that sugar is a very dangerous substance, that it has no benefits and instead contributes to a lot of health problems such as dental caries, diabetes, obesity and skin problems. All of these problems are very prevalent in Malaysia.

The World Economic and Environmental Crisis

The world faces many severe and fundamental problems which undermine the assumptions which have long been held about development. The world's natural resources are being depleted so fast that many scientists now doubt if the present development

strategy, with its emphasis on capital-intensive methods, can continue for much longer.

Economists and planners have usually focused on the flow of income as measured in the Gross National Product (GNP). But they have forgotten to take into account the stock of resources which gives rise to and makes possible this flow of income. This stock of resources has been used in the years since the Industrial Revolution to enable rapid economic growth. But with the depletion of these resources, the future flow of income—the future of the GNP itself—is now being threatened.

Indeed, the rapid depletion of the world's natural resources is the most important factor which will determine the nature and the shape of human society in the years ahead. Yet this central fact of life has yet to be fully taken account of by governments, planners, academics, economists or businessmen, including those in Malaysia. Development plans are still being drawn up on the assumption that all the energy, mineral, and biological resources that we have used in the past and are using in the present will always be with us.

The truth is that man has already overexploited nature, and in a few years there will be nothing left to exploit. By the year 2000, for instance, the tropical forests will largely have disappeared from the face of the Earth, taking along with them millions of species of animal and plant life which have existed for hundreds of millions of years.

The results of this rapid resource depletion are already being seen in the present world economic recession and the rate of inflation in the world. This economic crisis has been spurred on by a shortage of basic materials and higher costs of production. For instance, as good quality tin ore near the ground surface is depleted, production costs go higher and higher as the miners have to dig longer and deeper to obtain tin of lower grade. The rising cost of production eventually pushes the price up, although at the moment the world recession is having a depressive effect on commodity prices.

Economic crisis in the Third World

Developing countries like Malaysia are being badly affected by world recession and inflation. A large part of our economic growth has depended on the continuous exploitation and export of resources such as timber, tin and petroleum. These resources are going to be exhausted in the near future—timber and petroleum in the 1990s while tin production is already dropping annually and may be depleted in 30 or 40 years.

Third World countries have become even more dependent on Northern countries in the post-World War II period, and more of our resources and labour go into commodities exported to the rich countries. Trade policies are biased toward the industrial nations, thus causing hundreds of billions of dollars of real resources to be transferred from poor countries to rich countries. Prices for Malaysia's commodities—like rubber, palm oil, pepper, cocoa and tin—are being depressed by the low demand from the rest of the world. More than a quarter of the workforce in the Malaysian tin industry has been retrenched due to the collapse of tin prices, and three million people depending on rubber for a source of income have suffered a drop in real income due to the declining price of rubber.

In the Third World, the best quality lands are taken up by export crops. The richest of our forest, mineral and metal resources are exported. Our best brains and a very substantial part of our labour force are used in the service of transnational corporations owned by the rich countries. Almost all our traded goods are carried on ships owned by rich countries. The international chain of commodity traders, wholesalers and retailers are controlled by the same countries. And finally, our top researchers spend their long hours conducting research for institutions ultimately controlled by the administrations of the rich countries, and large numbers of our academics, doctors and scientists migrate to their shores. All these indisputable facts have led to a continuous drain of money and resources from the Third World.

During the colonial era, the colonial masters squeezed wealth from their colonies to develop their own countries. Today, this

is even more true. The belief that rich countries are giving 'development aid' to poor countries is essentially a myth. In reality, the Third World is channeling resources and funds to the industrial countries, in the form of profits on investment, interest on loans, royalties for technology, fees for management and consultancy, losses due to terms-of-trade decline, and taxes lost through transfer pricing by transnational corporations.

When Third World governments try to break away from the economic or social chains that bind them to the industrial nations, they are often blocked. For instance, when Bangladesh decided to ban dangerous or worthless pharmaceutical drugs, the US government intervened on behalf of the drug industry. And when Third World countries do not follow policies that please the major powers, they can be threatened with invasion, as happened when the US invaded Grenada. When international agencies like UNESCO or the ILO or UNCTAD endeavour to take up issues on behalf of the Third World, they are threatened with a pullout of funds, as the US has done.

Reevaluating development policies

The purpose of development should be to increase the well-being of individuals throughout society. With more than a decade of experience analysing current development patterns, we have come to realise that the individual's problems and welfare are linked to the conditions of his or her community. For instance, a housewife finds that fish prices have shot up and there is a shortage of fish in the market. This is linked to the plight of the fishing community, whose fish stocks are being depleted by trawler boats introduced by a development project.

We have also come to the conclusion that the problems of local communities are related to policies at the national level. For instance, land and housing shortages, the rising cost of living, and the lack of proper sanitation are all experienced at the local community level. But their roots lie in the absence of proper national planning, or worse, of wrong national planning, leading to top-heavy, élite-oriented government bureaucracies.

And finally, we have come to realise that problems at the

national level cannot be discussed separately from conditions prevailing at the international level. For instance, as mentioned previously, a large segment of our society has been adversely affected by the world recession and falling commodity prices.

Because of the current pattern of development, the needs and welfare of the individual consumer, the economic and social situation of his and her community, and of the nation as a whole, are all tied up with and influenced by events and developments at the world level. And this is true whether we are talking of economics, social issues, or cultural ways of life. It is at times like these, when our dependence on the world economy is so acutely felt, that we realise the need for a self-reliant type of development, in which we produce sufficient quantities of food and basic consumer commodities for use by the local population, rather than exporting raw materials in exchange for manufactured items and food.

Planting an indigenous seed

It is not only in the area of production or trade that we need to be self-reliant. We also need to develop our own ideas and policies on development to suit local needs and to meet local aspirations. For far too long we have borrowed and put into practice theories of growth and development which were written in the West by so-called experts, many of whom have never lived in or even visited developing countries. Development theories and plans must rise up from indigenous soil itself, and not be plucked out from European or American skies and implanted. A wrong seed will not grow well in Third World countries.

One worrying feature of our development is that we seem to have been too much taken up with the belief that modernisation *per se* will provide the key to our development, a belief which originated from the West and was passed on to us, even though in the West itself this assumption is being abandoned. In developing our countries, we seem to think that big and prestigious projects are the hallmark of modernisation and growth.

But in the light of the resource depletion problem and the economic recession, it may be necessary at this stage to

reevaluate development projects which are either existing or are being planned. Such a reevaluation is necessary to ensure that a huge waste of funds does not take place. For instance, current plans to build new highways worth billions of dollars may be economically unwise given the accelerating prices of oil and motor vehicles, and the expected decline in motorcar usage in the years to come.

Projects such as billion-dollar highways and multi-storey office blocks may seem impressive from the point of view of modernisation, but they may well be obsolete and useless in the very near future. Projects which do not meet stringent requirements of efficient resource use, environmental impact and social usefulness should be reconsidered or should not be approved. On the other hand, projects which are efficient in their use of resources, which are ecologically sound and which meet the basic material and spiritual needs of the majority of people should be actively sought out and promoted.

One of the main activities of CAP is helping rural communities which suffer from basic needs problems and from the side-effects of modernisation, particularly pollution. We believe that our work is valuable in lending a helping hand to depressed rural communities so that they too can benefit from development. We are also able to give valuable feedback to policymakers and government authorities so that they can take actions to counter the ill-effects which are suffered by the rural population. We believe that non-governmental organisations like CAP can co-operate with governments to bring about genuine development at the rural grassroots level. In doing this, of course, we believe that genuine and equal participation by rural people themselves is very essential if they are to benefit from development.

Appropriate products

It is not only the public sector which should review its projects. The private sector is also guilty of a gross waste of resources and the promotion of lifestyles which lead to the alienation and cultural emptiness of modern humanity. Industries are producing more and more goods which are of little genuine usefulness and

which may be unsafe, of poor quality and even morally objectionable. An example of such a product is the electric toothbrush, which I am told is getting more popular in the United States, where people may be too tired to perform the tedious hand motions required by the ordinary toothbrush. Needless to say, electric toothbrushes are luxuries which waste resources; we can only pray they don't enter Third World markets.

There are also products made these days to malfunction after a certain period, so that consumers will buy more of the goods. These products with 'built-in obsolescence' include everything from ballpoint pens to motorcars which rust and malfunction even when new. Our society is also swamped with books, films, comics and television programmes which overemphasise violence and sex.

In the choice of goods to produce, given our limited resources, we should emphasise appropriate products which first of all meet society's basic needs of food, health, housing, and education, as well as healthy recreational, spiritual and artistic pursuits. Products which we manufacture should be socially useful, durable, and safe to use, rather than being designed for attractive packaging and fashion.

To produce these appropriate products, we should not rely solely on modern capital-intensive technologies, but develop our own appropriate technologies which are small-scale, made from local resources, reflect the skills of our communities, and are ecologically sound. Indeed, there are already many appropriate technologies which have developed through the generations in our countries but they are neglected because of the faith our scientists and planners have in modern technology.

In the final analysis, however, nothing is going to change unless the people themselves realise the folly of chasing after all the modern gadgets of urban life. The advertisers have teased and tempted us to get more money to spend on more and more fashionable products—clothes, cars, video sets, electronic gadgets, and so on. Consumers have become the slaves of products. Products which are supposed to serve human needs have instead been used to create unhealthy artificial desires, and have twisted people

morally and spiritually to yearn for gadgets and to slave their lives away to earn the money required to purchase them. So we have now to question our very minds, our very hearts, indeed our very souls: Is this what a human being is, is this what life is all about?

I, for one, do not think so. This is not the sort of creature which our Maker has designed us to become. A human being is a noble being, in possession of mental and spiritual faculties, who is made to live in harmony with nature, in friendship, love and cooperation with his other fellow human beings. We were not created to destroy nature and to compete with one another for fashionable goods.

Only if we change our attitudes, avoid the temptations of rapid modernisation and lead simple but happy lifestyles, can we avoid the wastage and great economic dislocations which result from the depletion of our resources. We must have a type of development which focuses on humans' material and spiritual needs. After our basic material needs are fulfilled through the provision of basic goods and services like food, housing and health, we should be free from the dictates of fashion and the consumer culture. This means more time for leisure, recreation, reading and spiritual development.

What I am proposing as an appropriate lifestyle is nothing extraordinary. It is just returning to a simple way of living, to a harmonious relationship of humans to nature, to our fellow humans, and to ourselves.

THE MYTH OF THE MODERN

Nsekuye Bizimana

I was born in Rwanda, central Africa, in 1949. Before I went to Germany in 1970 to study veterinary medicine, I had thought it quite obvious that my country should imitate Europe in every respect. In our eyes Europeans led a life full of happiness and luxury.

I was fortunate to receive a scholarship to study abroad, and have now spent more than 25 years living in Europe. During this time I have lived as a student, industrial worker and scientist, both in the city and in the country. I have talked with many different people, young and old, rich and poor, employed and unemployed. I feel that through these experiences I have been able to understand the ways of the 'modern world'.

All this has convinced me that the main cause of the internal problems in Africa lies in the fact that we Africans still believe, even after 25 years of independence, that progress simply means copying white people, adopting all their methods, technologies and policies. Imitating the ways of the West will result in the failure of Africans to make their own discoveries on the basis of their means, abilities, history and traditional skills. Until the present we have seen the results of such a policy: not only have we failed to solve our old problems such as hunger and disease, but we have also added new ones, similar to those in the industrial world, such as loneliness, alienation and the destruction of our environment.

I believe that positive changes cannot occur in Africa until the African people lose their illusions about Europe. In writing about my experiences in Europe, I hope I am making a small contribution to dismantling these illusions.

Life in the West

After living in Europe for a long period of time, I became more aware of what Western society lacked, and the many aspects of Rwandan life that are valuable. Much to our surprise, we Rwandans felt very homesick in Germany. We had everything in Europe. We had considerably more money than at home, where we had practically none. We were well dressed, which was not the case in Rwanda. Each of us had not only a radio, but also a cassette recorder and record player. Not even loneliness made us want to go home, since we three good Rwandan friends had each other. But while we appeared to have so much, we did not have everything in Europe. We missed the sense of togetherness which was so much part of village life. We missed home. Home not only in the broader sense, but also in the narrow sense—the place where one was brought up and where one's personal history began. Although we had so many opportunities in Europe, we were still not quite happy. We yearned for the old black milieu and the simple, natural, uninhibited behaviour of Africans. We wanted to see what had happened to our village. Who had got married? Who had had children? A nagging voice inside us kept repeating: 'You've got everything, but you're still worth nothing in this foreign land.'

All in all, however, I had a pleasant time in Europe; the longer one is in Europe, the less one expects from people. As the Germans say, one develops a thick 'elephant skin'. Also, the longer I stayed the more evident the various aspects of societal decay became. One clear example is alcoholism. When we first came to Germany and noticed that so many Germans drank, we thought first of all that it was because they had a lot of money. However we began to see how alcohol abuse was in fact an escape from the stress and unhappiness so many people felt. One German claimed that 'although technical progress has made life easier, it has also created problems. Many people cannot cope with these problems and the reaction is to reach for the bottle.' I also noticed that Europeans have a more fervent inclination towards work than the Africans do. This strong work ethic,

although considered most productive, has many negative aspects. Many people in Germany suffer from ill health because their bodies are under so much stress.

Loneliness

Loneliness, the main illness of 'civilised' people, is also connected with the problem of overwork. As Mother Theresa once said, 'The people of the Third World are derided because they can't feed themselves. The people of the industrial countries have a far worse kind of hunger, which they can't satisfy with their technological achievement: the hunger for love, security and community.' Thinking about these words, I find a similarity to what I saw in Berlin. This is clear in a comment of a German friend: 'You see these crowds of people—Berlin has two million inhabitants—can you imagine how painful it is to feel alone in such a crowd? One feels like one in two million—in other words, like nothing.'

Initially I did not understand my friend. It took me years and years to notice that loneliness is a problem of industrial countries and that many people cannot cope with it. And when one does become aware of the problem, one becomes aware at the same time that many people in these countries have been 'dead inside' for a long time, and that they are only 'moving body masses'. One starts to understand also why people take pep-pills, sedatives and alcohol, just to be able to talk to each other, and bear life. One must ask oneself whether or not technical development has brought these people more happiness or more sadness.

As a foreigner in these countries one first notices loneliness in oneself. Most of all one feels lonely when everyone is aware you are sad, but still nobody approaches you to ask what the matter is. One feels lonely when one realises that one has to cope with all one's problems alone. Conversations with many lonely people told me that Germans have everything except the most important thing: love and security. They are unhappy despite their material affluence.

Most people in Germany owned a dog. I saw the dog as a symbol of a brutalised industrial society. The dog is supposed to

supply that which humans are no longer capable of, namely love, affection and security. Love for an animal turns into an exaggerated love of oneself and a hatred of other people.

I also observed crisis in the family. The concept of extended family has died out. The family has been reduced to just a few close members, and even these people have difficulties getting along with each other.

Some people are so tired of living that they commit suicide. Why do more people in rich countries commit suicide than in poor ones? Why are people unable to love each other in industrial countries? Why are there far more lonely people in these places? One keeps asking oneself these questions when confronted with this problem. The first reason, I believe, is the fact that the people are under so much pressure to achieve. If one works a lot, one has little time left over for other people, even if one is in need of company. A person who is perpetually under stress and who never gets the better of his work, cannot be at peace and have the friendly disposition which other people would like.

Technology has also invaded the home. People in Europe no longer entertain themselves. Television entertains them. In contrast, people in Africa do not have television and radio to amuse them and there is, therefore, far more contact between family members. Also village festivals lead to a strong feeling of togetherness, with everyone taking part, and without any commercial intentions. This feeling of togetherness is never apparent in large cities in Europe or America. In fact, in these cities people have very little trust for one another. There are reasons for this lack of trust. At the root of it all lies the way in which people from all walks of life have been thrown into a big melting pot. And with the continual moving from one flat to another, one remains anonymous and unnoticed, and thus people become indifferent to their neighbours.

Development and Breakdown in Rwanda

Applying the same economic criteria for judging development in Rwanda as in the West, the authorities in Kigali had reason

to be pleased with the results attained up until the breakdown in 1994. In the rural areas the quality of housing had been improved from huts to stable houses, and primary hygiene practices had been instituted. Many industrial products (with negative effects that only became evident later) offered more comfort than the traditional way of life. More Rwandans were being educated at home and abroad, and the number of subjects taught at the national university had increased. In fact, Rwandans were proud in claiming that Kigali had become a little European island in Rwanda.

The fact is, however, that from the point of view of human development, a sharp deterioration in the quality of life had taken place. The influx of every imaginable Western industrial product, from washing machines, hi-fi sets and video players to sweets and cars, led to an even greater admiration of the West. People wanted to acquire these fine things more than ever, but only a small portion of the population could afford them. The result of all this was the creation of an arrogant bourgeoisie, who believed in the principle that 'the more you have, the better you are.' Such powerful bourgeoisies formed a state within a state, thus controlling almost everything. This was similar to the dictatorship-of-capital seen in the West. The benefits of modernisation were rarely distributed equally. Thus those areas with fine modern installations despised the areas without. As a result, tension developed between different areas within the country. This is known as regionalism. In many African countries, regionalism corresponds to tribalism, because different tribes live in different regions. Money reigns and thus people go to any measure to acquire it. This striving after money inflicted serious damage upon our culture. Egoism gained ground. Nobody did anything unless he personally intended to gain from it. Little was shared and the spirit of solidarity amongst our people collapsed.

Building on traditional ways

I believe that one way of resisting the forces of modernisation, and avoiding the consequent problems, is to decentralise political and economic power. If the new structures in Africa could

only make it possible to return to the old form of democracy, one would sort out quarrels, and especially the most private of these, within the family instead of in court. Villagers would be able to assume responsibility for themselves and thus decisions could be made at a village level. Village gatherings would take place regularly, just as they did in earlier times.

The decision-making processes in African villages show that our ancestors could be democratic without belonging to political parties. The village chief did not simply issue instructions but first made his decision after a long discussion which normally took place with other village elders under a tree. Disputes between individuals were sorted out in *gacaca*, the Rwandan name for a village gathering, where everybody was free to give their opinion, and decisions and judgments were made in a democratic way. As they look towards the future, intellectuals in Africa should direct their thoughts towards finding a development model which would build on, rather than destroy, such traditional practices—which would, in other words, more closely correspond to the principles and attitudes of the African way of life.

A certain amount of cooperation with industrial countries is necessary, since their experiences can be of use to Africans in some areas of development. But development so far has done more damage than good. This damage is most evident in agriculture. The mechanisation and chemicalisation of agriculture has increased dependency on imports. Relying upon agricultural machines means that work comes to a halt if the machines and their spare parts can no longer be paid for. Employing machines in agriculture is also objectionable on the grounds that the rich, the only ones able to afford them, take away the land from the poor. The fact that precedence is given to the production of export-intended cash crops such as coffee, tea, cocoa, flowers—rather than to the crops which are needed to feed the indigenous population—soon increases the risk of famine. And the foreign exchange which is earned does not serve the masses but is used to acquire luxury products from abroad. I am of the opinion that one should first exhaust all agricultural techniques

which are simple, cheap and harmless, before looking to Europe for ideas. A lot of imagination has to be applied not only in agriculture and animal breeding but also in techniques for preserving produce. For example, why not use ashes from banana leaves as a preservative for millet, instead of using DDT?

A clear concrete example shows the strengths of using local resources. In order to kill the ticks that carry East Coast fever, animals are driven into dips full of insecticides. Sometimes the animal dies from strong internal toxicity; at other times the insecticides penetrate the skin and are deposited in fatty tissues and the milk. This whole process would be unnecessary if animals remained in their natural localities, because there they are already resistant to such endemic illnesses. Furthermore, those owning only a few animals could remove the ticks by hand.

Africans have to be extremely careful before adopting new means and methods in agriculture. To the question of which organisational structure to apply in African agriculture, the answer is according to the African ideology: put simply, cooperatives should not be forced and large farms should not be formed. The existing agricultural system—that is, the traditional system—should simply be improved.

Moral signposts

Along with recognising the value of African ideology, each African country has to raise for itself a moral 'signpost'. It is important that Africans develop their own morality on the basis of their own traditions. The signpost should include positive traditional values (for example, respect for the elderly, fondness for children, a spirit of community, and so on), as well as condemnation of negative aspects of the traditional way of life (for example, superstition, monarchic tendencies, female circumcision). One should encourage Africans to find their orientation according to this signpost.

Religious ceremonies which are really a veiled means of obtaining and retaining power for some should be replaced by more traditional village festivals (celebrating births, deaths, harvests, and so on) which would allow the people to develop

a common spirit and, in so doing, suffocate the encroaching Western ideology of 'each man for himself'.

Finally, I would like to direct a few words to industrial countries. They should not act as if the current events in Africa have nothing to do with them. There is only one Earth, and technological progress in the media and transport are making it smaller. Changes in one region have consequences elsewhere. It is difficult to imagine that, in this world of ever-decreasing size, certain regions continue to become richer and richer and others poorer and poorer. Policies based on egoism, whether on a national or an international level, are doomed to fail.

This paper is based on Dr. Bizimana's book White Paradise, Hell for Africa, *available from Edition Humana, Grainauer Strasse 13, 1000 Berlin 30, Germany.*

THE IMPACT OF MODERNISATION ON INDIGENOUS PEOPLES: The Case of Sarawak

Evelyne Hong

Much has been said and written about social change in the societies of the Third World. The conventional wisdom has been that colonial contact—and more recently development—would free the less fortunate in these societies from poverty, hunger and illiteracy. The development advocated was all too often equated with economic growth, a development concept which has proved to be a fallacy. In the process of imitating a Western model, Third World communities everywhere have been losing out.

The disintegration of traditional cultures follows a generally predictable pattern. Subsistence farmers with their own land and tools are transformed into wage labourers. Those that manage to hold on to their land switch to cash crop production, thereby becoming subject to the mercy of the market economy and the chain of traders and middlemen. The dispossessed, the unemployed and the young leave their indigenous communities for the bright lights and opportunities of the towns, only to become the victims of urban poverty and squalor. Traditionally self-reliant societies become dominated by outside forces that are more powerful economically and politically. Individuals and communities are left with little or no control over their existence and livelihood.

What follows is a case study of a Kenyah longhouse community located on the banks of the Baram River in Sarawak, East Malaysia. In recent years, these people have been confronted by powerful economic and social forces which have threatened their

way of life and deprived them of their ancestral lands. This process began in the 1980s with the introduction of the market economy, formal education, and dam construction and logging operations in their forest lands.

Traditional Kenyah economy

The traditional economy had four important features:

- *Swidden agriculture*: In Kenyah society, swidden was once the main form of agriculture. It was based on a system of land rotation: land on which padi was grown for one season would be vacated and allowed to lie fallow while another plot was prepared for the next season's crop. There are a number of processes involved in swidden farming: slashing, felling, firing, sowing and harvesting. These major activities were done collectively by the community. Before these major agricultural activities were undertaken, the village as a whole had to discuss and agree on its commencement, as work on one swidden would affect neighbouring plots.
- *Land*: Since agriculture was the mainstay of the economy, land was the most important factor of production. Under the traditional system, there was no private ownership of land in the sense of aquisition through purchase. Under customary law, rights to land were based on felling virgin forest, occupying and cultivating the cleared land, and planting fruit trees on it. Rights over land which was uncultivated, on which no sign of cultivation existed, or which was abandoned and unclaimed, lapsed to the community. Usage rights in land could also change hands temporarily. The 'lending' of land (or usufruct rights) was a common feature among community members.
- *Labour relations*: There were two main forms of labour organisation in traditional Kenyah society: community labour and *adet senguyun* (mutual help). Community labour was used in building the longhouse, and on social and festive occasions such as funerals and weddings. These activities would be concluded with a meal in which everyone was obliged to

partake. Activities of this kind expressed community solidarity, and were sanctioned by *adet*, a traditional philosophy covering economic, political, and social aspects of Kenyah life. *Adet senguyun* was a system of reciprocal labour exchange among groups of families in the longhouse. It was employed for work in the swidden, in building a family room or a boat, or for any other activity which required help. It was an occasion for companionship and chatter, and was one of the main factors enhancing village cooperation.

There were also other forms of labour in swidden agriculture, namely *corvee* or obligatory labour. *Corvee* labour was performed by freemen for families of the aristocracy. This service was provided during the main stages of the swidden cycle.

- *Distribution of surplus*: Due to the low level of technology and the perishable nature of food, a food surplus was not easily stored. It was instead distributed through a form of generalised reciprocity or gift exchange. The more an individual gave, the more he was appreciated and respected for his generosity. This element of reciprocity in consumption enhanced the spirit of sharing sanctioned by *adet*. The aristocracy also observed this principle of reciprocity with their freemen. If a freeman's crops were destroyed, if he experienced a bad harvest, or if he could not complete his room, he could be assured of assistance from the aristocrat. Kenyah moral order was based on such relationships of reciprocity and interdependence. This system succeeded because credibility and purpose were ensured by the *adet* system. The gift exchange between freemen was also a leveling mechanism by which excess food and labour services were shared. This helped to minimise economic disparities between freemen in the society.

Introduction of the market economy

Contact with the market economy, and the legal, political, social and cultural institutions related to it, significantly transformed the Kenyah system of production. It was the introduction of

rubber cultivation that initially linked the communities along the Baram River to the fortunes of international trade. Once planted, rubber trees became a permanent feature of the land, and longhouses no longer shifted with the exhaustion of swidden farms. Now, the Kenyah people had to stay close to their rubber plots to look after them, and could not move as freely as before.

Cash crop cultivation also led to a more individualised system of production. Less cooperative labour was required since rubber, pepper and coffee could be worked efficiently on an individual basis. And unlike the major swidden activities, work on one farm did not have an economic effect on neighbouring farms. The result was less mutual dependence between families in production, less collective decision-making, and less labour exchange. Increasingly, each family concentrated on its own cash crop production and kept the fruits of its labour for itself.

In 1956, the state initiated subsidies for cash cropping. These schemes were introduced to discourage swidden cultivation and to encourage the development of a more sedentary rural population. These efforts drew the community further into the larger economy and society. Concentration on cash cropping also meant less time and labour expended on growing food for subsistence. When there was not enough, food had to be purchased.

Some of the most profound impacts resulted from changes in the land system. The classification of all virgin forest land as State Land in 1949 checked the further expansion of traditional swidden holdings over which families could gain prompt rights of use. As a result, less swidden could be grown, or the period of fallow had to be reduced. Land problems were made more acute by the fact that the best lands were frequently planted with rubber.

In the 1960s, State Land was leased out to timber companies. Logging camps and sawmills mushroomed all over Baram as the timber industry boomed. Employment was now available to the Kenyah, opening the possibility of earning a wage as an alternative to farm work. Many young Kenyah moved out of the traditional economy and its set of customary laws.

With increasing population, there was a need for more land; but by now, it had been made scarce by land legislation and the

exploitation of timber. Rubber had to be sold, and the further the rubber lands were from the trading *pasar* (bazaar), the less advantageous it was for the owners. Due to these factors, many communities began to abandon their homes and swiddens upriver to be nearer the *pasar*, the hospital, and the school for their children. As land downriver was prone to flooding, there was a shift from swidden agriculture and self-subsistence to swamp rice cultivation, which often had to be supplemented with purchased rice for the family's needs.

The shift to cash cropping from padi cultivation and the increasing monetisation of the economy had a great impact on social relationships within the community. The aristocrats who owned more land were able to engage successfully in rubber cultivation. Income from rubber was reinvested into more rubber land, and wage labour was employed both within and outside the village. Tribute labour lost its significance because hired labour also performed the job. Wealth was measured in terms of rubber land. The aristocrats could afford to engage wage labourers, and in some cases discontinued swidden civilisation on a subsistence basis. Cultural practices (such as *adet*) associated with swidden were abandoned by these groups.

Customary rights still held on swidden land, but not on rubber land. Rubber land became private property, with the owners holding permanent rights of ownership, cultivation and disposal. Owners could pay hired labour to cultivate the land, a system of wage labour which had never been part of the traditional system.

The use of surplus

With the exposure of the village to the market and the increasing commersialisation of the economy, the method of utilising surplus changed. The aristocrats could exchange surplus rice, and later rubber, for a large range of consumer goods bought from the *pasar*. Surpluses could now be converted into money to buy furniture, refrigerators, town clothes and bicycles, most of which were prestige items and manifestations of conspicuous consumption. Money could also be used in gambling. People

could travel to the *pasar* to buy goods and tinned foods, collect rent from their properties in the *pasar*, go to the cinema, eat in restaurants or entertain guests. Cash could now be saved in fixed deposits in the banks. Thus, more money meant more consumer goods and a 'fancier' style of life.

The village economy was no longer self-subsistent. Outlets for surplus existed in luxury consumption or profit ventures. This commercial attitude of the aristocrats led to a breakdown of reciprocal relationships. Freemen could no longer turn to them for rice or help, as every dollar could now be used for investment and profit.

In one revealing incident in the village, a sick man had to be sent to the hospital downriver. Instead of bringing him to the hospital on his own boat with outboard motor, the village chief suggested the man be sent on the slower commercial launch. This would not have happened in the old days.

Mercenary considerations have taken over in other ways, reducing community spirit in the village. A few of the better-off farmers have stopped participating in work parties and are now hiring workers to perform tasks in the swidden and rubber plots. These farmers, now involved in business, have opted out of the mutual help system of *adet senguyun*. Meanwhile, farms have become choosey about selecting help for the work parties. The sickly, weak or old are less than welcome because they can contribute less.

Money relations have also replaced customary social ties between the aristocrats and the freemen in the village. As a result, the distribution of wealth and income has become more unequal. Aristocrats have been able to enjoy higher levels of consumption at the expense of this inequality. Reciprocity between freemen has also broken down. Surplus meat and fish can now be sold to the timber camps instead of being distributed among the families.

Culture and lifestyle changes

In traditional Kenyah society, the longhouse community formed the total world in the sense that this was where all the spiritual,

cultural, and physical needs of its members were provided for. The importance of the longhouse was further strengthened by the wealth of rituals and ceremonies connected with the agricultural needs of the Kenyah. It was through the participation in these activities and rituals that Kenyah socialisation took place. All this had an ideological base in the *adet* system which maintained community values and the rules of customary law.

As the traditional self-sufficient economy unraveled, the Kenyah people became transformed into members of a consumer society. A taste for new products and services was acquired. Sugar, cigarettes, beer, clothes, transistor radios, TV sets and refrigerators became indispensable. Mothers gave up breastfeeding and began bottlefeeding their young. A new interest in accumulating money developed, as the means of acquiring goods, services and property from the outside. The 'good life' could now be had if one established links with wider society. For those who did not make it themselves, the dream was transferred to their children. So they worked and sacrificed to send their young to school.

Education

With compulsory formal education, the most important function of the community is taken over by the state. Kenyah socialisation is replaced by the schooling process, in which the child is systematically taught not only reading and writing skills but patterns of behaviour and values appropriate for a society based on competition, achievement and reward. For those who succeed in the primary school, secondary education is extended into boarding school in towns, and the child is given a taste of urban life and comforts. The youth who passes through this system is cut off from his traditional community. Education thus draws the young into the modern sector, initially through the school system and later through the labour market. The training and discipline a Kenyah child undergoes in school serves to alienate him from traditional community life.

Those who succeed in school outside the village are a great asset to the family. For those who fail, all the years in school are

wasted, and the sacrifices made by the family are bitter experiences. Parents have not only lost the gamble, they have also lost their children. School has not taught them to be farmers, so they cannot help in the swidden or even the rubber farms. They are thus neither qualified enough for a white collar job nor equipped for agricultural work. They are ashamed to return to the villages where they would be deemed failures. Unable to fit into the life of the community, they are more comfortable in the *pasar* doing odd jobs or working in the timber camps.

All over the Baram, longhouse communities are devoid of youths, who have flocked to the timber camps and the towns. Those who come back to the longhouse during holidays find it a dull place. They miss the cinema and the shops in the *pasar.* The conditions for the breakdown of the traditional Kenyah longhouse community in the future have been created as the traditional system loses the ability to reproduce itself.

To the successful educated Kenyah, the town is where the future lies, and they are ready to cut lines with the traditional community. It is very common to hear Kenyah girls saying that they do not want to marry a farmer. Marrying an educated Kenyah male means freedom to leave the longhouse and the traditional ways. Educated Kenyah males want wives who can speak English, dress well, walk in high heels, and drive a car. Traditional habits are discarded for the modern ones they share with their urban counterparts. Education thus makes the process of Kenyah deculturisation complete.

Although this study is based on a particular ethnic group in Sarawak, it is significant to note that the traditional communities in which these changes are taking place are relatively remote. Yet cultural change has come to stay. Given this fact, the degree of change occurring in areas which are not as inaccessible—and are thus more exposed to the market economy—must be even more profound.

Waking up from the development dream

The above analysis has shown how market forces and the ethos that accompanies these forces have transformed the traditional

economy and cultural values of the Kenyah. We can see similar conditions in many other traditional communities, where agriculture is being abandoned because there is no one to work the land, where those who can would rather join the market labour force working for wages. The replacement of subsistence production with cash cropping has made possible a form of consumption based on the market economy and the use of cash, in which more money allows for more consumption. This contact with the market economy has led to the breakdown of value systems in traditional societies.

The market economy generates a pattern of consumption which is both compulsive and necessary for the economy to sustain itself. In this context, a whole propaganda machine is needed to make one consume more. Whether this consumption is really necessary or irrational does not matter. This is the consumer culture in which 'the market has to be moulded to suit the product'. Ultimately, the 'homogenising of consumer tastes' results in the creation of a universal culture which is everywhere the same—in food, dress, song, leisure, housing, etc. Universal culture also means that since everywhere the same types of goods and consumption are being sought after, producers can enjoy economies of scale, as their products are identical the world over.

This universal culture is Western-based, as the products it promotes and the lifestyle it encourages are Western and 'modern'. This brand of consumption and lifestyle furthers the interests of the transnational corporations whose products are thereby promoted. As every city, town and village undergoes the process of becoming modern, they begin to share the same colourless anonymity that modern cities share the world over. The four-lane highways, skyscrapers, shopping complexes, condominiums, cinemas, supermarkets, discos—this is the cosmopolitan city, devoid of any indigenous character, culture or charm, and a very lonely place to live.

Advertising propels this culture even further. In most Third World countries (including Malaysia), the largest advertising agencies are American. In the advertisements that adorn the

glossy magazines and the television screen, the man who smokes a particular brand of cigarettes is always successful in life and with women. The girl who uses that particular perfume is always admired and loved. This TV set is used by the most popular film actress. Images of luxury are used: swimming pools, golf courses, sleek cars, airplanes, beautiful sophisticated women. The impression is that a little of the glamour and success somehow rubs off when the product is used.

Even more subtle is the other message put across all too often, that indigenous ways are to be discarded, even held up to scorn and ridicule. Indeed, throughout the Third World, traditional culture has become a negative reference group, a group that all ambitious go-ahead people seek to escape and deny all connection with. This is especially so with the younger school-going generation who have become totally displaced and alienated misfits in their own society. The school system after all trains them to fit into the efficient slots that modern society has been built upon, be it as clerks, engineers or accountants. There is no other definition for success. One is 'modern'—in dress, tastes, behaviour, employment, lifestyle—or one is a failure.

One of the most effective and successful purveyors of this dominant culture is tourism. Tourism clinches the images of the good life the locals have only heard about or seen in celluloid. The tourist's money and his lifestyle and the amenities that are created to cater to his 'needs' are as large as life. Tourism has an aura of its own: big beach hotels, swimming pools and casinos, skiing, yachting and unquenchable fun. Associating with it—as waiters, bellhops, cashiers, laundry men—also pays.

The kinds of aspirations resulting from Western cultural domination cuts people off from their cultural moorings, alienates the younger generation from traditional indigenous society and destroys people's self confidence. Cultural domination distorts the personality and engenders a sense of inferiority.

This sense of smallness and inadequacy can be extended to nations as well. When nations do not believe in their indigenous ability, knowledge and ingenuity, all that is traditional is thrown away (except when it is for the exotic approval of the tourist).

We replace it with all that is Western and modern. We mimic their dancing, music and art forms, while traditional theatre, song and dance is discarded with shame. We copy their cities, traffic systems, buildings, science and technology, health systems and education. We have simply lost faith and confidence in our own abilities to create and build for our own needs. What is worse, we perform this wholesale imitation in the name of, and at the expense of, our people and our communities.

Although it would be simply pure nostalgia to hark back to some concept of a romantic past, there was much good in the traditional society: the community spirit, the sense of sharing, the reverence towards the land which was the source of livelihood. In talking of 'development' then, these are the cultural values we should work towards, rather than those of the modern consumer culture which is both alien and alienating.

Many people in the West have become disillusioned with the soulless individualism of their system and are looking towards more community-based ways of living. It is ironic that they are often rediscovering it in the countries and cultures of the Third World, while we in the Third World are in fact rejecting and destroying community values and reverence for nature, replacing them with the the worst there is in Western society. At its best this aping of the Western model remains a caricature of the original. At its worst it destroys the minds, souls and even the physical bodies and lives of our people, as is evident in the existence of 400,000 drug addicts in Malaysia.

Development and production in the Third World should be one which is meaningful and self-reliant. It should harness the use of appropriate technology and conserve the environment. It should also inculcate the values of community spirit, humaneness and sharing. Despite the onslaught of Western systems of production, habitat and culture, there is still much in our society that we can save and build on. In the villages, there are still some common people who hold fast to their community values, their harmonious understanding, respect and love for the natural environment, who practise the appropriate technology and lifestyle which others talk about, and who are unhappy with

developments in the modern world. Hitherto these common people have been looked down upon as having conservative values, as being obstacles to development.

We ourselves must wake up from the development myth and dream, face the fact that modernisation is alienating our human values and destroying our resources. The deepening ecological crisis that threatens our very existence has its roots in the economic model upon which contemporary western civilisation is predicated, and requires us to question the very basis of industrial society. Therefore, we must rediscover our own identity, and re-build our societies along our own lines, based on community spirit, respect for nature, appropriate forms of habitat and technologies, simple lifestyles and finally—most important of all—based on human, really human values.