

The MYTH of DEVELOPMENT

NON-VIABLE ECONOMIES AND
THE CRISIS OF CIVILIZATION



OSWALDO DE RIVERO

SECOND EDITION



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THE MYTH OF DEVELOPMENT
Non-Viable Economies and the
Crisis of Civilization

Second edition

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to Penelope

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Introduction

Since the Industrial Revolution and the emergence of the modern nation-state in Europe and the United States, more than 194 nation-states have been born, most of them in Latin America, Asia, the Middle East, Africa and Oceania. A type of historical 'law of diminishing returns of the possibilities of national viability' has accompanied this proliferation across the years. In reality, the majority of the nation-states that arose in the nineteenth century, such as those in Latin America, and nearly all the new nation-states formed in the twentieth century, such as the Asian and African countries, over half a century or more later could better be considered as unfinished national projects that do not develop. They are quasi nation-states.

Many African, Asian and Middle Eastern states that emerged in the middle of the twentieth century have not been bogged down in underdevelopment, like the Latin American nations. They did not even experience the prosperity enjoyed by the latter with their world exports of guano, saltpetre, rubber, coffee, sugar, cotton, meat, grains, wool, fishmeal, minerals or petrol. They simply emerged without any national development options, due to the unfortunate coincidence of their independence with a technological revolution that needs less and less of the raw materials and abundant supply of manpower that are their only comparative advantages.

In the majority of industrialized countries, national identity preceded the formation of state authority. The nation, reflected above all in the joint emergence of a middle class and a market of national dimensions, formed the basis of the modern state. In contrast, in most of the so-called developing countries, this sequence was reversed. Political authority – the state – emerged from independence before the nation, that is, before developing a true bourgeoisie and a unifying national capitalist economy. For this reason, the majority of the wrongly termed 'developing countries' are

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children of their enthusiasm for freedom, but not the offspring of middle-class prosperity and scientific and technological progress. It has not been possible to replicate the developed, capitalist and democratic nation-state in most of the countries that comprise the so-called developing world. The greater part of humankind continues to exist with low incomes, in poverty, technologically backward and governed by authoritarian regimes or, at best, in low-powered democracies.

At the beginning of the twenty-first century, after more than sixty years of theories of development and development policies, some 156 countries are still 'developing' and only four have really achieved development: two city-states, Singapore and Hong Kong (China), and two small countries, South Korea and Taiwan. These four are the only countries where there has been a constant increase in the average rate of per capita revenue since 1960, in addition to technological modernization, a continuous process of income redistribution and a significant shift of population from poverty into the middle class. These four countries account for less than 2 per cent of the population of what the experts have, for the past fifty years, been calling the 'developing world'.

Consequently, I am once again asserting something that surprised many 'experts' when *The Myth of Development* was first published, namely, that development is no more than a myth which helps underdeveloped countries to conceal their misfortune and developed countries to soothe their conscience.

This assertion is all the more true in that we have now actually seen that the biggest obstacle to development, which is what the first edition calls 'physical-social imbalance', takes the form of shortages of water, food and energy and rises in their price as a result of the explosive growth of the poor urban population of the underdeveloped countries.

In this new edition of *The Myth of Development*, I also discuss another enormous obstacle to development: the crisis of our civilization, which is not only, as many people believe, an economic crisis, but actually a crisis of our unsustainable urban civilization that is spreading inexorably to all parts of the planet, thus making water and food scarce and expensive and using up contaminating

fossil fuels. Our global urban civilization is incapable of recycling or replacing the fossil energy it uses and which is heating up the planet; so far, it has also been unable to change the patterns of consumption which are destroying its own habitat.

Our civilization thus operates in the same way as a cancerous cell that goes on destroying the organism off which it lives. The crisis is far-reaching in the sense that it is ethical and based on the ideology of material progress at any price, a self-destructive ideology which believes that the planet can provide us with infinite resources and absorb unlimited pollution.

As a result of climate change, the earth has said no to this ideology. Climate change is the most clear-cut reflection of the crisis of our unstoppable urban global civilization. In view of this situation, I once again stress that the classical agenda of the wealth of nations has to be replaced by that of the survival of nations. In each underdeveloped country, a 'pact for survival' has to be adopted to achieve a physical and social balance between the urban population and the availability of water, food and renewable energies in order to avoid national inviability.

I am aware that this subject of national inviability represents a kind of taboo. By stating truths that have been studiously avoided, we run the risk of causing deep discomfort and of injuring false patriotic sentiments, which have only served to mask the historical inviability of the nation-state. I am convinced, however, that such reflection is essential in countries that have wasted the entire twentieth century without achieving development and now have to deal with the crisis of their own civilization.

Excerpt from the Introduction to the First Edition, 2001

In 1967, at the outset of my diplomatic career, I had the invaluable opportunity of participating in the Kennedy Round of negotiations under the General Agreement on Tariffs and Trade (GATT), where Peru played a leading role among the developing countries as a major producer of copper, lead, zinc, fishmeal, cotton and sugar. In those years, all of those raw materials were still very important for the industrialized countries. Thanks to that, Peru was able to gain tariff concessions without yielding a great deal in return.

Twenty years later, as head of the Peruvian delegation, I again took part in trade negotiations under the GATT. This time the matter at hand was the Uruguay Round, the largest series of trade talks of the twentieth century. Peru's main export products were virtually the same as in the previous round, but this time the negotiations centred on manufactures with high technological content and, above all, on trade in services and on standards for the protection of intellectual property. As a result, the developing countries, like Peru, that had neither increased the technological content of their exports in the previous twenty years nor developed competitive international services, nor invented anything of importance, were virtually left sitting on the sidelines in these, the grandest worldwide trade negotiations of modern times.

After more than two decades of diplomatic experience as a participant in international forums and negotiations, I was the dismayed witness to the gradual loss of Peru's negotiating power. I was ending my career as the representative of a country that was archaically inserted in the new global economy, that was still trapped in the exporting of raw materials or slightly transformed products with non-competitive prices, that was increasingly indebted, and that had doubled its population. To make matters even worse, its strategic situation was becoming critical as it switched from exporting to importing fuel and increased its food imports. At the

end of the twentieth century, the World Bank classified Peru among the twelve poorest countries in the world, with more than 40 per cent of its population living on an income of \$1 or less a day.

This inability to function in the modern global economy is hardly an exclusive trait of Peru. The history of the majority of the countries of Latin America, Africa and Asia, since their independence, has merely recorded a gradual process of dysfunction and global marginalization. In this way, a large number of misnamed 'developing countries', undergoing a veritable urban demographic explosion, are finding it difficult, if not impossible, to modernize in order to participate in a global economy that demands increasingly sophisticated manufactured goods and services and uses less of their raw materials and their abundant unskilled labour force.

Despite having been among the founders in the nineteenth century of the modern community of republican nation-states, born under the influence of the American and French revolutions, by the end of the twentieth century the Latin American countries had not been able to join the exclusive club of the developed capitalist powers, which currently has just twenty-four members. It has been said that the Latin American countries lost a decade in consequence of the debt crisis, but the truth of the matter is that they have lost fifteen decades, 150 years, without ever managing to become modern, prosperous, capitalist democracies.

Today, our countries have been overtaken in standards of living and technological modernization not only by Europe and the United States, but also by Japan, Taiwan, South Korea, Malaysia, Hong Kong, Singapore, Australia, New Zealand and Canada. In the nineteenth century, when Latin America made its historical debut, independent and rich in natural resources, those nations were either very poor, semi-feudal countries, or not very prosperous British colonies. The socio-economic landscape of Latin America 150 years ago resembled a European province or the North American frontier. By contrast, today it looks more like the poor countries of the Middle East or Asia. In less than a hundred years, Europe and the United States succeeded in eliminating virtually all their poverty, while in Latin America poverty has become practically hereditary.

I | The Twilight of the Nation-State

Quasi nation-states

Seen from outer space, our planet appears as a blue orb, robed in a thin film of life, the biosphere. Inside that layer, micro-organisms, plants, animals and the human species exist. By dint of centuries of violence and political evolution, the latter gradually organized the earth's territory into different nation-states. Although these entities' frontiers are invisible from outer space, they are ever present here on earth. With the exception of the polar regions and the oceans, not one centimetre of the planet exists without delineation and occupation by some state authority. At the end of the twentieth century, there were more than 195 nation-states, and that number may still increase, with time. This form of political organization continues to constitute the ideal for numerous human communities aiming to differentiate themselves from other groups, to achieve security and prosperity, and to participate on the international stage as sovereign nations. Throughout its history, humankind has given shining examples of heroism, of altruism and of creativity in the name of the nation-state but, in that same name, it has perpetrated acts of cynicism, cruelty, human destruction and environmental waste.

The nation-state, as we know it today, is the product of four hundred years in the evolution of Western political thought. Its foundations hark back to the Renaissance theses about the reasons for the existence of the city-states put forward by Niccolò Machiavelli, and, above all, to the ideas of Thomas Hobbes. Hobbes expounded the most convincing arguments of his time concerning the necessity for a supreme central authority in order to liberate man from his natural, brutish state, and grant him security. Hobbes compared this highest authority to the Leviathan, the supreme biblical monster described in the book of Job, whose power was unparalleled. From that time forward, the Leviathan became the

idol of a new civil cult exalting the 'reason of state', or national interest. In its name, mountains of human sacrifices have been offered. The cult of the Leviathan has encompassed a great variety of rituals, from absolute monarchy to democracy, passing through Nazi-fascist and communist totalitarianisms on the way.¹

The absolutism of European monarchs was the human incarnation of the Leviathan. During the sixteenth century, the monarchs extended their reign over feudal lords, counties, duchies, free cities, and in general over all the feudal powers of that time. They imposed a recruitment method for the royal armies, applied a centralized system of tributes, minted money, created the public treasury and established the nucleus of what would become modern state bureaucracy.²

The continual fighting under royal flags and emblems, the hegemony of a common language over Latin and the existing dialects, as well as the adoption in all the kingdoms of Europe of the Christian religion, in its Catholic or Protestant versions, all combined to increase each population's identification with the monarchy and to fortify the state, lending it the significance of the present-day nation-state. In 1648, the Treaty of Westphalia, which put an end to the wars of religion under the European monarchs, established the classic characteristics of the modern nation-state, closely patterned on the attributes of monarchy. Since that time, states have been seen as sovereign and equal, as were the kings before them. There is no authority or entity above them. All are Leviathans and, as such, are supreme, sovereign, equal and independent powers. Somewhat later, Louis XIV of France and Frederick the Great of Prussia personified this absolute sovereignty, with enormous bureaucracies and great military power.

With the independence of the United States in 1776, the monopoly of sovereignty held by the monarchies began to disintegrate. That revolution laid the foundations for the cult of the state under republican, democratic procedures and the respect for the individual's civil and political rights. In 1789, the French Revolution adopted the American principle of guaranteeing individual freedoms. However, instead of investing sovereignty in the people, as decreed by the United States Constitution, it placed sovereignty

in the hands of the ‘nation’, a new, abstract concept born of French rationalism. The Declaration of the Rights of Man and of the Citizen, of 1789, proclaimed that no individual could exercise any sort of authority that did not emanate from the nation. But what was the nation? According to Sieyès, the nation was nothing but the third estate, or the general will of the majority, as Rousseau had propounded.

The French revolutionaries could not have imagined the totalitarian consequences that might derive from the interpretation of this idea of the general will. In fact, the Jacobin revolutionary terror shortly thereafter proved very proficient in interpreting the general will and representing the nation above individuals, especially if these individuals were aristocrats or enemies of the Jacobins. Thus it was that, paradoxically, the exaltation of the nation allowed the Leviathan to increase its power and to override the human being’s individual rights. Consequently, it is not surprising that, from that time on and throughout the ensuing pages of history, totalitarian interpretations should arise, confusing the general will of the majority or of the ‘nation’ with that of a predominant ethnic group or a predestined social class. The Nazi state and the Soviet state were perverse results of the personification of the general will in the Aryan race or the proletarian class. Ideologies such as Nazism or communism, perhaps inspired by Rousseau, were very distant from Jefferson, whose main concern, following Anglo-Saxon tradition, was the protection of the individual’s inalienable liberties against the Leviathan’s excesses or excesses of any other political abstraction, such as the ‘nation’.

Without a doubt, it was the Industrial Revolution in Europe and the United States that put the final touches to the modern nation-state as we know it today. The development of industrial capitalism identified the cult of the Leviathan with the creation of a national market and a beneficial integration into the international market. The paradigm of a nation-state that was sovereign, integrated and united – not only by ethnic, cultural and religious ties, but also by the material well-being of its population – prospered in various parts of the globe. To the Leviathan cult was added the concept of national economic progress. In this way, the new civil

religion, originated with Hobbes, was brought to its completion with the prediction that personal prosperity and happiness would be achieved through the growth of the nation-state's gross national product (GNP). Thus were born the twin myths of progress and development, which still today are pursued as El Dorado by the majority of the backward and underdeveloped countries which have never undergone a real capitalist industrial revolution.

The illusion of a republican and democratic nation-state, where the people's well-being and happiness would be assured, was fundamentally the product of the American and French revolutions. After that era, it began to take root all around the world. In the nineteenth century this idea finished off the Spanish and Portuguese empires, giving rise to the new Latin American republics. At the beginning of the twentieth century, as a result of the First World War, the ideal of the nation-state destroyed the multinational Austro-Hungarian and Ottoman empires, and gave rise to new states in the Balkans and the Middle East.

After the end of the First World War, the dream of having a state of one's own grew ever stronger; this was as a consequence of the principles proclaimed by Woodrow Wilson, and confirmed in the Versailles treaties, concerning the right of nationalities to create their own state organization. Wilson's misguided idealism awoke the dragon of nationalism in all its guises. Starting with Versailles, every human group endowed with some ethnic, cultural and religious affinity felt that it had the right to become a state, even though it did not constitute a true nation and did not have the economic and technological means to be viable. Thus the cult of the Leviathan had reached its apex.

The nationalist dreams of the twentieth century relied on the principle of self-determination as their political and juridical instrument. Its application so far has been based on the assumption that as many nation-states can be created as there are nationalist elites that wish it, with no thought for these new states' governability or viability. The only thing needed is international recognition. While independence admittedly gave dignity to peoples who had been the victims of domination and discrimination, it did not necessarily create viable nation-states. The result of this is that a large number

of countries find themselves in a worse situation than when they were colonies, and many of them wish they could be recolonized.

The cult of a Leviathan of one's own and an ideology based on the principle of self-determination caused an unprecedented proliferation of nation-states during the Cold War. At that time, demagogues scoffed at any caution in applying the principle of self-determination, treating it as a pro-colonial, imperialist or racist attitude. To delay the right of self-determination unleashed the counterpart right to wars of liberation with the accompanying duty to help the insurgent population. It was anathema to go against the decolonizing avalanche that tried to reproduce the European model of the nation-state in human communities that had no concept of the state, or of the nation, and that lacked both the middle class and the national market they needed in order to be governable and viable. Upon granting them recognition as independent countries, the rivals of the Cold War lost no time in lavishing international aid on them so as to exercise their own influence on the new nation-states. When the Cold War ended, the strategic value of these countries evaporated, leaving them on their own, virtually without aid or special treatment as developing countries. They were now at the mercy of a process of natural selection by a new global economy of information and services that was less and less reliant on their raw materials and abundant uneducated labour force.

The principle of self-determination of the United Nations Charter was applied during the decolonizing fever without concern for the political, economic, social and cultural factors that determine the governability and the viability of a nation-state. Decolonization within the United Nations became a rather routine diplomatic posture to avoid making waves during the Cold War. This stance prevented a calm and gradual application of the self-determination principle, an application that would take into consideration the possibility of instituting a process towards self-government and economic viability. The colonial powers seemed to be in a great hurry to rid themselves of the explosive socio-political burdens caused by an anti-colonial movement that was more fired up by nationalist ideology than by the feasibility of economic and social

development. Even more, the ideological embodiment of self-determination reached such heights of fantasy as to believe that it was impossible to have development without independence and that, in the end, it did not matter that a country be born poor, since international aid would bridge the economic gap with the former metropolis. Today's reality stands in stark contrast. Economic and social development is merely a distant myth propagated by the political classes and international technocracies in these poor countries. After fifty years of experiments in development and billions of dollars in aid, the majority of them are still underdeveloped.

The emancipation euphoria often propelled by tribal nationalism and the Kalashnikov has ended in catastrophic processes of underdevelopment and national non-viability. The uncontested dream of one's own Leviathan overrode the real possibility of many human communities to organize themselves as civilized states. The majority of the member states of the United Nations supported this illusion, often with ideological automatism, without measuring the later consequences on regional and world stability to be caused by independence devoid of economic viability. In applying the principle of self-determination, they did not take into account the minimum prerequisites for the governability of the new entity, its capacity to provide well-being for its population, the availability of competitive enterprises, technology, food and energy production, as well as the probability of its exercising respect for human rights. Dozens of states joined the hitherto exclusive Leviathans Club, without having the conditions for their own future governability and viability. They were recognized as sovereign, but paradoxically were considered in need of international aid in order to survive. In direct contrast to the nature of the Leviathan, they were recognized as 'unequal' states. In other words, they were seen as 'incomplete' *quasi nation-states*, 'needing to develop'. Time would prove that they would never be completed either as states or as nations, and that the majority of these underdeveloped entities are not Leviathans. The idea that the European model of the nation-state could be reproduced proved to be not only false but dangerous for the stability of the region and of the world.

During the Cold War, all those false, incomplete Leviathans called 'developing countries' acquired strategic value by taking advantage of the East–West conflict in one way or another. Thus they gained room for manoeuvre for the purposes of obtaining economic aid or political support from one of the two blocs, in order to finance their non-viability. This allowed the dream of the nation-state to continue and entities that lacked future viability to survive. The end of the Cold War has turned that dream into a nightmare. Today the governments of the so-called developing states are beginning to confront the cruel reality of their urban population explosion, meagre production of food and fuel, and their lack of competitive advantages. In addition, they lack a strategic position which would permit them to negotiate more aid, a reduction of the heavy payments on their foreign debt or a 'special and differentiated treatment' in trade, investments or intellectual property. During the 1990s, under the supervision of the International Monetary Fund (IMF), the World Bank and the World Trade Organization (WTO), all these nations were obliged to take part in the global economy on equal terms with the industrialized countries. A great majority of these poor, technologically backward countries are today unable to stand the transnational competition and will be discarded as inappropriate economic species.

In the end, the price for the thoughtless overuse of self-determination in the second half of the twentieth century, together with the loss of the underdeveloped countries' strategic importance, is being paid by millions of unemployed young people in the countries that became independent over that period. Now they think only of emigrating to the capital of the former colony against which, ironically, their fathers and grandfathers had rebelled so as to give them a nation-state. It is not so strange, therefore, that the inhabitants of Puerto Rico and of the Pacific island of Palau do not want to become independent from the United States and that the inhabitants of the Comoros wish to be recolonized by France.

Nowadays, support for the right to self-determination is not as enthusiastic as it once was and is tempered by worries about the fragmentation processes that have occurred in multinational nation-states such as the Soviet Union and Yugoslavia. The great

Western powers, which had the responsibility to create a new international order after winning the Cold War, did very little to preserve Yugoslavia's unity or the new version of the territorial economic union of the USSR proposed by Gorbachev. This inertia in the face of the disintegration of such strategic states will carry a very high price in the future. One cost already has been the failure of the capitalist democratic project in Russia and in all the new quasi nation-states that arose from the former Soviet Republics in Central Asia and the Caucasus. As the USSR and Yugoslavia fell into fragments, new Caucasian, Central Asian and Balkan states were recognized, even though they had no experience in self-government and had little capacity for survival as states in the twenty-first century.

In the majority of the industrialized states, national identity preceded the crystallization of the state authority. In other words, the nation, reflected in a common culture, and above all in the emergence of a middle class and a national market, existed before the modern state was formed. In contrast, the majority of the quasi nation-states of Latin America, Asia and Africa, despite their historical and cultural differences, experienced this sequence in reverse. The political authority, that is to say, the state, emerged before the nation, before the national cultural identity and before the development of a true middle class and a unifying national market. As a consequence, in many of these countries the political elite, the state bureaucracy and the military are still trying to achieve a national project, through the use of symbols and myths that serve them as sustenance.³

Throughout the twentieth century, the elites of the underdeveloped countries have wanted to reproduce the modern European or North American nation-state or, in some cases, have tried to copy the Soviet model. Nearly all of these attempts have ended in disaster. Not to allow imitation would seem to be an irony of imperialism. The underdeveloped countries' elites, through a variety of national projects, have pursued the myth of development. This myth took on the shape of state intervention or of a socialist revolution, and is now in the guise of a neoliberal capitalist revolution. In all these cases, the authorities have exacted mountains of

social sacrifice, without managing to eliminate poverty and establish a true civil society ruled by law and by democratic institutions. The cost of the Soviet version of development was shortages and lack of freedom; today, that of the neoliberal, capitalist variant is unemployment and social exclusion. For the great majority of the so-called developing countries, it is increasingly difficult to achieve the formation of a nation-state united by a national market, high standard of living and individual freedom. The global socio-political conditions in today's world make it very difficult to repeat the experiences of such former British colonies as the United States, Canada, Australia and New Zealand, which are the only former colonies where the large majority of the population enjoys both a high living standard and freedom.

One of the clearest characteristics of the quasi nation-states of Latin America, Asia and Africa is the lack of connection between the official world and the vast ocean that constitutes the semi-urbanized population. This human mass organizes in its own manner, ignores legal and other formalities, conducts a separate economy that does not appear in the national accounts, and overwhelms the state with its demands and its spontaneous organization. This population is largely unemployed or underemployed, living outside the national and the global consumer society; it has recent rural roots and is partially urbanized, with no real awareness of nationhood. It often attempts to affirm its identity, not as a social class, which it is not, but rather through ethnic or provincial affinities, ancestral myths or in religious-magic interpretations and radical ideologies. These may even grow into cultures that violently reject modernity, as is the case with the various strands of Islamic fundamentalism as well as other radical movements that are emerging in countries where the state does not have an integrated nation at its base.

The appearance of quasi nation-states poses novel problems for the theory of international relations. Since the emergence of the modern state, despite legal pronouncements about equality, there have always been powerful nations and weak nations, large and small. In the nineteenth century, however, the smaller and weaker states, such as Belgium, Switzerland, Holland, Denmark or Japan,

managed to develop through their own efforts, with some help from occasional allies. In the twentieth century, the quasi nation-states have been stabilized in underdevelopment for many years, and are surviving in part because of international aid. This means that they are not viable with their own resources alone.

How can the quasi nation-states be made economically viable when their populations are growing explosively and their exports consist of primary or only slightly processed products, which fetch low prices and for which demand is low? How are we to deal with ungovernable countries where corruption is rife and the daily practice of democracy is rudimentary at best? How are the market economy and the consumer society to be produced in Latin American, Asian and African countries that have more than 40 per cent of their population living below the poverty line, on \$2 or less a day? How are nearly 5 billion persons with low incomes to be integrated into global consumption patterns without seriously damaging the biosphere? How is the enormous gap between rich and poor countries to be closed without gravely affecting the planet's ecological balance?

The myth about closing the gap between the so-called developing countries and the industrialized nations has translated into a splendid disaster. Three decades of United Nations efforts in favour of development have resulted in a kind of world socio-economic apartheid: a planet in whose northern hemisphere there is a small archipelago of wealthy nation-states, surrounded by the majority of mankind. The latter comprises the populations of more than 130 poor, or extremely poor, quasi nation-states, where the government does not control economic life, where the state is totally absent from entire provinces, where the urban population is exploding and the majority lives in the informal sector, where life is tumultuous and difficult, and where emigration is the only way out for the young.

These quasi nation-states that cannot develop lack the essential attributes of a modern nation-state. They do not have market economies of national dimensions, because of the numbers of inhabitants that live in poverty or below the poverty line. Besides, they do not control large segments of their economic activities,

because these are mainly informal, and what remains in the formal sector is controlled by the IMF and the World Bank. Nor do they have jurisdictional control over their entire territory, since large areas are in the hands of insurgent groups, bandits or drug dealers. And in many quasi nation-states, political life itself is controlled from abroad, with external monitoring of their human rights obligations and of their questionable electoral processes.

In the international field, the quasi nation-states have no negotiating power and do not exercise a positive influence on any major event. Instead, they are often the source of problems for the international community. They appear in the world press as territories with elected, but not democratic, governments, lacking basic institutions, where barbaric acts occur and human rights are violated, where armed confrontations and drug-driven terrorism take place, or where governments are violently overthrown. Another characteristic of these entities is their inability to be partners or allies, as a result of their weakness. The central activity of their foreign policies, if such a thing exists, is to solicit aid and exoneration from their international obligations, to accept economic adjustment programmes and periodically to restructure their foreign debt.

Most of these quasi nation-states exercise a kind of negative sovereignty, since they do not have the supreme power to achieve well-being and security for the majority of their population. Nevertheless, in some cases, they make a public display of their sovereignty, invoking the right to 'non-intervention in internal affairs' when the international community demands that they comply with their international obligations in matters of human rights. Still, these quasi nation-states have even been expelled from this last trench of their negative sovereignty by the international monitoring of human rights violations and by selective actions of humanitarian intervention.⁴

Perforated sovereignties

All nation-states have been principally engendered by revolution and war. For that reason, their security is based more on the military than on any other factor. War made the nation-state the supreme actor in international relations. The Leviathan was the only entity

capable of changing an international situation from pacific to warlike, with all the consequences a decision of that nature had on the lives of its citizens and of its enemies. The nation-state's high points in the role of master of lives were the two world wars of the twentieth century. Starting from the Cold War, the nation-state's role as supreme actor began to decline because, for the first time, nuclear parity impeded the most powerful Leviathans from making war in order to defend their national and ideological interests.⁵

The balance-of-terror policy, called MAD (mutually assured destruction), prevented an Armageddon, originating a period of strategic stability that lasted more than forty-five years. This facilitated the global expansion of capitalism and the entrance on the international stage of new, non-state actors, the transnational corporations. During the Cold War, the number of these enterprises burgeoned, from 7,000 at the beginning of 1960 to 37,000 at the end of the twentieth century, thereby producing a second scientific and technological revolution as important as the Industrial Revolution, if not perhaps even more significant. Not only did the transnational enterprises integrate the economies of the United States, Europe and Japan, but they connected them with the entire world, including even the economies of their Soviet bloc rivals. Ideological confrontation and the arms race during the Cold War did not stop the transnational corporations from doing lucrative business with the Soviet bloc. They managed to circumvent many prohibitions about investing and selling technology to the Communist countries. They opened branches of both Western banks and Western companies in the capitals of those countries; their investments in joint ventures with the countries of the Soviet bloc reached billions of dollars. The most graphic demonstration of the transnationals' relations with the Soviet bloc was the construction of the gas pipeline from Siberia to Europe, producing Warsaw Pact gas for NATO, no less.

As the Cold War faded, the transnational corporations continued to make inroads into the sovereignties of all nation-states. Today the greater part of the world's goods, services, financial transactions, entertainment and publications is produced by transnational

enterprises. In a modern world that is becoming global through the action of these powerful enterprises, states have been losing sovereign control over economic and cultural decision-making. Globalization is eroding national capitalism, which constituted one of the foundations of the modern nation-state.

Today, the threat to the Leviathan's sovereign power is not an invasion by foreign armies; it is rather the world scope of the economy that allows decisions taken outside the national territory to determine the behaviour of interest rates, the fiscal deficit, the currency value, the price of primary products, the amount of unemployment, or the relocation of entire industries. Activities that were formerly reserved as strategic have practically disappeared. They may be taken over by companies that are located abroad, and even in states that were traditionally considered rivals. At present, even the arms industry of the one remaining superpower, the United States, is globalized. Several of that country's arms systems depend on the manufacture of parts and on technologies produced by companies that are not based in its territory.⁶

Even the richest and most powerful states nowadays often try to coordinate their national policies with other states in order to solve such problems as unemployment and maintaining the value of their currencies. That is what happens at meetings of the Group of Seven (G7) most industrialized countries. For more than twenty years in the framework of the G7, the heads of state of the United States, Germany, Japan, France, Britain, Italy and Canada have met regularly in an effort to manipulate the world economy and to find solutions for global problems, but these meetings have been without visible results. Their attempts at economic coordination have been upset by global financiers: not even these powerful countries have a sufficient volume of reserves to defy the global speculators.

The globalization of the financial world is one of the transnational phenomena that has most potently impaired the nation-state's sovereignty, causing it to lose control over its own currency and fiscal policies. Today, the international financial system resembles a huge casino. Speculation amounting to billions of dollars occurs daily in the foreign exchange of the world's wealthiest states,

without any possibility of them being able to exercise control. A change in the value of one currency in relation to another can cause bankruptcies or bonanzas, inflate costs, produce unemployment, stimulate imports. All these bets are placed electronically through computing and telecommunications, at the speed of light, by international brokers in New York, London, Tokyo, Frankfurt, Paris and Singapore, all of them beyond the purview of even the Leviathans' finance ministers and central banks.⁷

The development of telecommunications and information by means of global television has brought into contact the most diverse nationalities and cultures. It has spread all over the planet the image of a Western style of living, based on high consumption, material comforts, and permanent entertainment (music, films, digital games). However, this cultural penetration is not causing a parallel global distribution of the democratic values and the respect for human rights that are the very substance of Western civilization. In the new generations, a sort of cultural homogeneity is being created. Its attraction consists in its promotion of the instant gratification of material needs, from sex to fashion. However, it is not necessarily creating a new planetary ethic, since it neither fosters human solidarity nor promotes environmentally friendly patterns of consumption. In today's world, in sum, capitalist comfort can live side by side with barbarity.

Nowadays, no state can isolate itself from the seductive transnational images that give priority to instant individual gratification over equality and solidarity. In its most radical individualistic version, in every country this capitalism appears as the only paradigm for the search for happiness. People accept and desire this form of capitalism, despite the risks of social exclusion, because their hopes are high that some day they too will partake in the material life's banquet. In reality, however, the consumer society does not extend globally for the estimated 1 billion unemployed people who exist at present around the world. In these conditions, it is not surprising that violence and fundamentalist movements are arising as a result of the frustration many feel at not having reached the levels of consumption that are globally advertised as a possibility for all.

Despite these trends, however, globalization of the communications media does perform a positive role in unifying humankind. Not only does it transmit images of the Western materialist lifestyle, but it also transmits images denouncing massive violations of human rights, abuses and injustices in the world. This is building up a common feeling around the world of real concern for human problems and sufferings. Men and women are beginning to realize that they are part of humanity and not only citizens of a single country. This new global human consciousness cannot be controlled by any one state, no matter how powerful it may be. Today the sovereignty of nearly all nation-states has been penetrated by the global revolution in telecommunications. The way in which governments treat their citizens is observed by the whole world.

The process of transnationalization and globalization of the economy has gone hand in hand with an unprecedented scientific and technological revolution that is creating incredible opportunities for prosperity, although it also raises colossal obstacles for the underdeveloped quasi nation-states. Industrial production today requires increasingly fewer raw materials and energy per unit of production, due to the invention of substitutes, new artificial materials and computerized organization.⁸ Many transnational corporations are capable of producing, in the laboratory, agricultural products that the underdeveloped countries traditionally export. In the same way, they are creating artificial materials that replace metals. This new technological trend will doubtless affect the viability of the economies of so-called developing countries to such an extent as to leave them virtually producers of the obsolete.⁹

The transnational technological revolution cannot absorb the 47 million persons who annually enter the labour market around the world. The competition among the transnational corporations forces them to automate their plants and restructure their production methods, frequently creating more unemployment than employment. The promise of full employment as an objective of the nation-state is today unfulfillable, and large sectors of the nation-states' populations are unemployed and excluded from society. In the quasi nation-states, unemployment will take on unforeseeable proportions in the years to come, because advances

in technology and in automation will coincide with urban population explosion.¹⁰

The critical environmental problems of the planet also undermine the sovereignty of the nation-state. When estimating the wealth of the nations, present-day national economic policies do not deduct from gross domestic product (GDP) the nations' irreversible ecological losses. In this way, resources are exploited until total depletion. At the same time, these policies foster consumption patterns that destroy the environment. These consumption patterns are very difficult to change, since to do so would create the risk of great social turmoil: high-income citizens would not wish to relinquish their high living standards, and the poor would not like to give up their dream of some day living like the rich.

This impasse can only be gradually solved, as a supranational environmental management system begins to emerge, with the participation of states, the transnational corporations and representatives of civil society. This system would lay down measures and provide financial and technological resources for sustainable economic activities and management of the common heritage of mankind, in order to avoid irreversible damage to the biosphere.¹¹ An embryo of this system can be observed in the present regimes to control the ocean depths and to care for the resources of Antarctica. If this embryo of a supranational system were to be extended to other areas of the human heritage, even the powerful industrialized nation-states would become administrators of supranational standards that would be applied in their own territories. The nation-state of the twenty-first century would then be very different from the powerful Leviathan that produced two world wars in the twentieth century.

Powerless powers

Today we are confronted with a sort of 'Law of Diminishing Returns of National Power'. The majority of the states that became independent in the nineteenth century gradually lost what little power they had, and those that were freed in the twentieth century were born with practically no national viability. The Latin Americans belong to the first group. In the second

group are found the great majority of the Asian and African countries. The partial exceptions to this law are China, India and Pakistan, as they have acquired nuclear power, although the bulk of their population remains trapped in poverty, and two newly industrialized countries (NICs) of Asia, Taiwan and South Korea, which have acquired economic and technological power.

The power in the world has not been redistributed in more than a century. During the past hundred years of history, the most powerful states have nearly always been the same. Britain, Germany, Japan, France, Italy, Russia and the United States were already powerful in the nineteenth century. Not one of the largest countries of Latin America – Brazil, Mexico and Argentina – in spite of having been founders of the nineteenth-century community of modern republican states, has been able to gain entrance to the club of the great powers. In fact, most of the countries in the world are losing history's marathon. Not only have they not managed to develop and participate in world power, but many of them have been losing national viability in the face of the enormous challenges that the global economy and the current technological revolution present.

But the new twist is that nowadays not only most underdeveloped states are losing national power. The great Western powers that maintained themselves as a controlling oligarchy during the past hundred years do not now have sufficient power, either, to organize the world. At this juncture, there is no community of great powers with the capacity for creating a new world order, as was done in Vienna in 1815 and in Yalta in 1945. Today nobody can put the world in order.

The United States is the only global military power. It can send troops and invade countries but it cannot occupy them, pacify them and in addition sustain significant losses. In Afghanistan, subversion and terrorism are escalating and have extended to Pakistan. In Iraq, terrorist acts occur daily and the rivalries between the Shiites, Sunnis and Kurds make stability increasingly unlikely. As a result of pressure caused by the casualties suffered, the Obama administration has announced that from July 2010 the US plans

to withdraw from Iraq and its withdrawal from Afghanistan will commence in July 2011. Thus the United States is unable to impose a *Pax Americana*. It is said that the United States is a superpower without a sword. This is, to a great extent, true.¹² After the dramatic lessons of Iraq and Afghanistan, the United States is now very careful not to intervene militarily with ground troops.¹³

Today the nuclear arsenals of the United States, Russia, Britain, France and China have lost their strategic significance; this is because the socio-political turbulence in the different regions of the world cannot be resolved by nuclear dissuasion. The strategic situation of the world is complex because it has emerged from an era of strategic stability anchored in the Cold War, and entered upon an unstable process of global disorder. The same bipolarity that for forty-five years affected the conflicts of the so-called Third World, also served to control them. The US–Soviet rivalry was a factor that regulated ethnic violence and historic rivalries. The local conflicts were selected, limited, controlled, given ‘low intensity’. The Cold War constituted a kind of violence controlled by the superpowers in order to avoid a direct confrontation.

With the end of the Cold War, the strategic dyke that the two superpowers had built so as to contain violence in the world was breached. An avalanche of political disintegration, insurrections, civil wars, ethnic or religious conflicts, massive violations of human rights, genocide, waves of refugees and displaced persons was the result. The unresolved historical conflicts and rivalries raged out of control and acquired their own dynamic, fed by myths, pocket ideologies, tribal nationalisms and messianic fundamentalisms. The Balkans and the Caucasus blew apart. Genocide broke out in Rwanda and Sudan, famine, and violence in Liberia, Somalia, Sierra Leone and the Democratic Republic of Congo. Civil war began and intensified in Iraq, Afghanistan and Pakistan, narco-guerrillas were active in Colombia and Peru; fundamentalist movements grew in Egypt, Algeria, Pakistan, India and Indonesia, and new urban narco-guerrillas emerged in Mexico.

The situation in many quasi nation-states, submerged in violence and on the brink of collapse, obliged the United Nations, which had been designed to confront international conflicts

between states, to become involved in difficult *internal* conflicts and civil wars, and to increase its peacekeeping operations. Nearly sixty thousand blue-helmeted UN troops were mobilized, to the tune of \$4 billion annually, in order to contain this tidal wave of violence. Nowadays, the UN is discredited and practically impotent to contain the depredation of nations that are collapsing into bitter domestic fighting.¹⁴

Nowadays, the great Western democratic powers' defenders of human rights have enormous difficulties in intervening militarily to set the world in order. This is not the result of lack of military capacity, but is rather the consequence of a problem of civilizations. The great powers' consumer societies, based on the principle of instant gratification, are unwilling to accept sacrifices to correct evils in poor and distant regions of the planet. The politicians of the great powers find it nearly impossible to sell to their fellow citizens the idea that it is essential to participate in the 'just wars' of the United Nations. Their electorates refuse to sacrifice the lives of their sons and pay more taxes in order to establish a new world order. No consumer society wants to take on the human or the economic costs implied in 'peace making'. The mere idea of television pictures of their soldiers returning in bodybags terrifies governments, because of the potential backlash from voters. In consequence the governments of the great powers have adopted the policy of military interventions with 'no casualties' as their norm, and have therefore been extremely prudent in embarking on UN peacekeeping missions. Their political practice in recent years has thus been to safeguard the national electorate by abandoning world order.

Today, the great powers do not function and, as a result, neither do the United Nations' peacekeeping operations. The great powers' answer to the disorder in the world is always a combination of extreme prudence and cynicism, disguising their lack of power. This is the main cause of the malfunctioning of the world organization, a cause that these powers either ignore or try to ignore, instead criticizing the UN as though it were in itself a great world power rather than the reflection of the policies of swordless powers such as the permanent members of the Security Council.

A nation-state can only be called a great power if it exercises a power policy – in other words, if it is willing to use force and to suffer many casualties, if it refuses to be humiliated, and if it inspires respect. To lose a thousand or more men in an imperialist policy, in colonial wars or in punitive expeditions was routine when the great powers behaved as such in Asia, Africa, Central America and the Caribbean. In Somalia in the 1990s, by contrast, the death of a handful of marines triggered the evacuation of US forces. The United States considered that Yugoslavia's disintegration was a European problem. In like manner, France and Britain refused to send troops to Bosnia and submitted to blackmail and humiliations from the local forces. In the end NATO intervened, but only after crimes against humanity had already been perpetrated. NATO then organized air strikes, which failed to solve the problem of Kosovo.

For their part, the United States and Europe have maintained a prudent military-humanitarian activity in face of the genocide in Rwanda and Darfur and also in face of the great human depredation in the Democratic Republic of Congo. It could be argued that none of these democratic great powers has interests in Africa, but precisely their lack of interest in filling a void in the region, using the opportunity presented to protect human rights, is proof that they have lost the instincts and behaviour of the great powers.

Just as the fall of the Berlin Wall transformed world power from bipolar to unipolar, the low-intensity wars in Iraq and Afghanistan plus the collapse of Wall Street have liquidated American unipolarity, opening a new apolar geopolitical era. In this era, neither the United States nor any other great power will be able to quell a growing international anarchy, to establish in its place a new world order.

The unipolar system is not being replaced by a multipolar system as some believe. To establish multipolarity, it would be necessary for the strongest powers – the United States, Russia, China, Britain and France – to share out world power or, on the contrary, fight among themselves to attain it. Nothing of the sort is occurring. The United States is not capable of dominating the world at this time, and its allies, the European Union and Japan, are a long

way from being able to take up the challenge. On the contrary, they need to be protected by the United States in case of trouble with Russia or China. For their part, these two powers, having replaced communism with an autocratic sort of capitalism, are not competing with the United States or the European Union for world domination. China only wants the United States to stay out of her problems with Tibet and Taiwan. Russia wants exactly the same thing with regard to the former Soviet republics, which it sees as its zone of influence.

Thus the world, with neither a unipolar nor a multipolar system, is heading straight for apolarity. The United States is no longer the sheriff of the global village and no one can replace it. We are witnessing the birth of a new geopolitical era, where the great powers exhibit their impotence facing a chaotic world, fragmented by poverty, terrorism, civil wars, genocides, and the trafficking of drugs, arms and human beings.

The decline of the nation-state is reflected not only in the loss of geopolitical power and the start of an era of apolarity, but also in the loss of power to transnational banks and corporations. Today, all nation-states are becoming promoters of transnational investment. Since 1980, all without exception have changed their economic policies, liberalizing, deregulating and privatizing their economies. Thus they create conditions that permit the transnational corporations to enter their markets, which is tantamount to abandoning their national capitalism to the mercy of global competition. The nation-state is withdrawing from the economic and financial domain and giving way to transnational globalization. It is becoming more an administrative than a sovereign territorial entity, a kind of surrogate for transnational capitalism. Now its main role is that of an efficient manager, with a mission to liberalize and deregulate, to supply good infrastructure, to flexibilize employment and to strengthen public security, in order to foster a positive investment climate for transnational enterprises.

There is no better demonstration of the loss of economic power of nation-states than the deregulation and rescue of the global financial system. The deregulation of financial markets has in fact turned finance into a giant transnational casino, and financial

operations that are primarily speculative have now become the main national and global economic activity. At present, financial assets in the United States and Europe are equivalent to 400 per cent of GDP.

When this huge casino imploded in October 2008 and sucked Wall Street and the world's most important financial centres down into a black hole, governments rushed to the banks' rescue chanting the slogan 'they are too big to collapse'. In other words, financial institutions had grown so much without national regulation that, in some cases, their assets were now as large as or larger than the nation's GDP.

The governments of the main financial powers therefore spent over \$10 trillion in taxpayer money to save the transnational financial casino they had helped to create. One year later, the same bankers who were responsible for the 2008 crash reopened the casino using the trillions of dollars in rescue money and once again started playing with highly risky financial products, including dangerous financial weapons of mass destruction such as credit default swaps (CDSs), securitization and collateralized debt obligations (CDOs).

Transnational banks are thus once again earning enormous amounts, and their executives are also once again receiving huge bonuses, as if nothing had happened. The global financial casino continues to be unregulated despite all the promises made by the governments of the financial powers. Even the *Wall Street Journal* has admitted that today's bankers have the best of both worlds because they are earning a great deal, but if anything goes wrong, they have taxpayer backing. As a result of transnational banks' power over governments, taxpayers are now the ones paying for the chips the global speculative casino is playing with.

The most powerful nation-states are thus the faithful servants of transnational capital; financial speculation will therefore continue to win out as globalization's main activity – until the next crisis occurs.

2 | Global Empowerment and National Impoverishment

The new global aristocracy

World power has always been a game of geopolitical balance among a diminishing aristocracy of great powers. From the nineteenth century to the First World War, the players were Britain, Germany, France, Russia and Austro-Hungary. Between the end of that war and the Second World War, the game continued with the United States, Britain, France, Germany, Japan, Italy and the Soviet Union as participants. Later, the game was drastically reduced, to just two superpowers, the United States and the USSR.

The game ended with the end of the Cold War. The United States, the only superpower, cannot play the global equilibrium game, since it has no military rival. Even so, it lacks sufficient military and economic capacity to impose order unilaterally in the world. As a consequence, the new game for world power will no longer be geopolitical because no other power or group of powers can fill the vacuum left by the United States. This global vacuum of power is leading the world to an era of geopolitical apolarity in which world power is no longer the result of military balance among great powers; rather, it will depend on capacity for technological innovation, and its main actors will not be the aristocracy of the great powers but the new aristocracy of transnational corporations.

Today 38,000 transnational corporations and their branches conduct two thirds of the world's trade, and the combined sales of the eighty-six most powerful enterprises are larger than the exports of nearly all the nation-states that constitute the present international community. Only the exports of the ten most industrialized powers – the United States, Germany, Japan, France, Britain, China, Italy, Canada, Holland and Belgium – exceed the sales of Shell, Exxon, General Motors, Toyota, Ford, Mitsubishi, Mitsui, Nissho Iwai, Sumimoto, Itoch Maruben and Hitachi, the ten most powerful transnational corporations.¹

The world power that was the exclusive province of the old aristocracy of great, industrialized nations is now beginning to belong to this new non-state international aristocracy. In the last quarter of the twentieth century the transnational corporations proliferated: from 7,000 enterprises to nearly 38,000, with 250,000 subsidiaries, spreading consumption patterns and a similar lifestyle all over the world. The new global aristocracy decides worldwide where, what, how and for whom to produce.² Today, the destiny of many national economies and cultures is being decided not in government offices or parliaments, but in the international financial markets of New York, Chicago, London, Singapore, Hong Kong, Tokyo, Frankfurt or Paris, and in the boardrooms of the transnational corporations.

International trade today is virtually a subproduct of the investments, alliances and agreements among transnational corporations. At present, nearly 70 per cent of world trade takes place among those enterprises. These new economic relations have nothing to do with the famous comparative advantages of the different countries cited in the neoclassical textbooks of economics. In their alliances with suppliers, in their licensing agreements, in their franchise contracts and in negotiating their global strategies, these enterprises are not really exposed to the policies of the free market so in vogue in the political and academic discourse of the end of the twentieth century. Present-day globalization is the result not so much of free global competition among nations, but of a network of agreements and productive and financial activities among the transnational corporations. A large part of international trade and finance is still registered nationally by countries. This is the case not because the countries are in fact carrying it out, but simply because the transnational corporations' goods and services cross their borders.

These gigantic corporations, which used to be viewed with such fear as manifestations of imperialism, are now considered the embodiment of prosperity and modernity. All countries try to attract the investment and technology of the transnational enterprises, in order to increase the comparative advantages of their national economies and to gain markets. The truth is that it is

practically impossible for a national economy to have a globally competitive export sector without being associated with some transnational enterprise. There is no doubt that, if China, Singapore, South Korea and Taiwan have great competitive segments in their economies, they are the result of transnational operations within their borders.

The underdeveloped countries, with their lack of national capitalism, huge rates of unemployment, high demographic growth, and exports with low technological content have no choice but to seek productive transnational investment. Only in that way can they hope to reduce somewhat their unemployment, increase the technological level of their production, and develop new exports with competitive advantages. For these reasons, there is at present a dearth of transnational investments in all the countries of the world. It is not an easy task to become the country chosen for investment by the much-sought-after and spoiled aristocrats of the global economy.

The transnational corporations are very cautious and selective in their investments. They are interested only in the national factors that will produce the highest profits without running any great risk. They are particularly attracted by the technical capacity and productivity and low salaries of the workers, by the opportunities for subcontracting to national companies with technological capabilities, by good infrastructure, by the size of the domestic market, by the legal security and the political stability of a country.

Until the present, these conditions have been found, according to the transnationals, only in the Asia-Pacific region, in countries like China, India, Singapore, South Korea, Taiwan, Malaysia, Indonesia, the Philippines and Thailand. As a second priority, with much smaller investments, they prefer certain countries of Latin America and former Communist countries, such as Brazil, Chile, Costa Rica and the Czech Republic, Poland and Hungary. The remaining countries of Latin America, Asia and Africa receive very little productive transnational investment, despite the market reforms and the incentives they offer, because they are considered to lack the prerequisite conditions needed to make the profits these corporations hope to obtain.³

The transnational corporations exert a strong influence on the political class of the industrialized countries, which they apply through battalions of lobbyists and by dint of economic contributions. That is the way they woo the economic diplomacy of the United States, the European Union and Japan to promote their global interests. Today, on the international scene, the former world aristocracy of the industrialized nations, represented by the G7 wealthiest countries in the world, frequently practises surrogate diplomacy in favour of the transnational companies, applying pressure to gain access to foreign markets for these companies' products, services and capital.

The most powerful transnationals have thus succeeded in convincing the diplomats of the great industrial powers to capture the major international economic agendas in favour of their global interests. In the 1980s, these were the powers that turned the IMF into a collecting agency for the foreign debt of Latin America, thus guaranteeing the interest payments to the international creditor banks. They also managed to use the Uruguay Round and the creation of the WTO to gain access to nearly all of the national markets for transnational services and to develop a stringent international system of intellectual property rights protecting the technologies of the transnational enterprises. In the recent global financial crisis, the IMF was converted by the Group of 7 into a gigantic provider of liquidity, so that the insolvent countries could pay the bad loans made by many transnational banks.

Nothing proves more clearly the world power of this new non-state transnational aristocracy, and the surrogate role of the great industrial powers in its favour, than the draft of the Multilateral Agreement on Investment (MAI) of the OECD (the twenty-four most industrialized countries). In the end, the draft was not adopted because it went so far as to attribute rights only to transnational corporations and duties only to the nation-states. It even included the right for transnational investors to appeal to the courts and demand compensation from governments for loss of earnings. This new global system for transnational investments is an attempt to consolidate definitively the hegemony that transnational capitalism already exercises over the states and the national capitalists.

The constant pressure exerted by the Group of 7 for continued liberalization of manufacturing, services and capital markets is aimed at converting the highest-income groups in the poor, most populous countries into clients of the transnational corporations. From this point of view, the opening of the Indian and the Chinese markets is of major importance, since this move captures at least 400 million high-income clients, or a market equivalent to that of the United States or Europe.

The economic surrogate diplomacy of the old industrialized state aristocracy in favour of the new transnational aristocracy is not restricted merely to gaining access to the markets of India and China. It also tries to gain millions more clients in the Latin American, Asian and African countries. This is the logic behind present-day globalization. The whole process would not give reason for concern if it were creating abundant employment and if the poor countries' exports were growing at the same pace as the transnationals' sales to them. In fact, the contrary is occurring. Today, nearly all the underdeveloped countries have become large importers of transnational goods, and many of them are suffering serious external deficits. However, this external imbalance is not discussed at the World Trade Organization (WTO) since, for the new transnational aristocrats and their surrogate governments, the purpose of free trade is to find clients and not to help countries to develop.

In spite of the surrogate relationship between the great industrialized countries and the most powerful transnational corporations, the latter do not feel any identification with the national interests of the former. Coca-Cola, Nestlé, Nike or Nissan do not identify themselves with the US, Swiss or Japanese national interests, since their products are manufactured in many countries and are sold throughout the world. In pursuing their global objectives, many transnational enterprises have even relocated activities from the very capitalist national economies where they originated, thereby creating unemployment in these economies. The operations of a large majority of the transnational corporations are distributed all over the world. They are allied with other transnational enterprises, and their executives include a wide variety of nationalities.

If their headquarters were not located in one of the countries of the OECD, no one would really know what their nationality was. Nowadays it can be said that the largest transnational corporations really have no nationality; instead they have a national origin and broad global interests.

The strangest fact about the emergence of this new non-state aristocracy is that the transnational enterprises enjoy increasing world power whereas, paradoxically, they assume no international responsibilities. In contrast to the old aristocracy of the great powers, who tried to balance their national ambitions against their international responsibilities, such as the protection of human rights or of the environment, the executives of the transnational corporations do not want to establish any link between their global negotiations and the problems that these often cause. To mention only a few of these problems, they frequently generate unemployment, cause environmental damage, or depend on complicity with oppressive regimes. It would be very surprising if the new transnational barons were to consider China's record on human rights in their decisions about investing there, or were to decide not to use a new labour-saving technology in Nigeria in view of that country's unemployment problem. It would be almost utopian to think that they would increase their oil production costs and transport costs in order to avoid the present risks of marine pollution. For the executives of the transnationals, global social, economic and environmental problems pertain exclusively to the competence of governments, and the latter should resolve them without interfering in the transnationals' markets.

The only responsibility that the transnational corporations recognize is to their stockholders. However, the speed with which the ownership of their shares is interchanged on the global market makes it nearly impossible to identify the owners. No one knows who they are. The worldwide power of transnationalism today is increasingly anonymous. So much so, that unknown persons who were not elected decide the value of a country's currency, the price of its raw materials, the cost of credit, and the prices of energy or food. These unknown persons thus affect the fate of millions of people in many nations. In consequence, the very essence of

democracy begins to erode, because the citizens have no way to influence the conduct of their own country's economy. They no longer feel that their governments represent them, as governments lack power to change the situation and even act like surrogates for the transnationals' interests.

Gradually, a kind of anonymous global economic and financial dictatorship is being established as a result of the transnationals' lack of responsibility in the face of unemployment, financial speculation, currency fluctuations and environmental disasters. As globalization of the market increases, democratic national control of the economy diminishes and, along with it, the feeling of belonging to a nation or a community. In this way, resignation and social anomie arise, but so do frustrations and violence. In the end, the governments have turned over their domestic and international markets to the transnationals without demanding in reciprocity a joint responsibility for solving the problems that the globalization of the economy is creating.

The only way to force the new international non-state aristocracy to take on responsibilities is simply to grant them international representation, with full membership in the international economic, financial and environmental organizations. The largest and most powerful transnationals dominate almost entirely the production of and world trade in energy, metals, chemicals, food, biotechnology, automobiles, aerospace, electronics, computing, telecommunications, transport, media, finance and banking. Therefore, they cannot continue to stand aloof from the world's economic, financial and environmental problems. Today, the member states of the UN, the IMF, the World Bank or the WTO are still looking at themselves in a sort of twentieth-century magic mirror. This image constantly deceives them, telling them that they are the stars of the contemporary international stage when that is no longer the case. Maintaining an exclusive representation of nation-states in the World Bank, the IMF or the World Trade Organization is totally absurd in view of the fact that the GNP and the exports of nearly half of the member countries of these organizations are less than the sales of the 100 most powerful transnational enterprises.

With the exception of the grand show at the Davos Forum, there are no permanent and effective international stages where the governments of countries can meet with the representatives of the transnational corporations to negotiate about investments, environmental protection, and the use and acquisition of technology. The underdeveloped nation-states and their national business leaders would no doubt be very interested in having a place where they could deal with these and other questions with the most important actors in the global economy. Until now, the UN programmes for environmental cooperation and development, as well as the programmes of the World Bank, have been negotiated without any participation by the transnational corporations.⁴

The international organizations cannot continue to be mere diplomatic forums, places for speeches, discussions and negotiations between government representatives that have no real power to change global economic and environmental trends. The concept of international representation and co-responsibility must be extended to include transnational enterprises and representatives of civil society. Only then can the international organizations truly reflect the real world. How can the environment be protected if there are not even consultations with the company that is causing the pollution, or with the company that invented the technology for pollution control? How can the modernization of sectors of the underdeveloped economies be programmed without contacting the possible investors? How is the volatility of the world financial markets to be managed if the new barons of real world power are not made co-responsible?

Today we are witnessing the emergence of a new and powerful non-state world aristocracy alongside the decline of the old aristocracy of nation-states. Between the two processes, a power vacuum is forming. Governments do not have the power to resolve the world's problems on their own, and the leading transnational enterprises do not want to assume any responsibility for these problems. The old world aristocracy and the new are behaving as though they were not living on the same planet, as though they or their descendants will be untouched by the tensions and the violence that are already rising as a result of globalization, as though

they will be untouched too by the fact that no one is trying to deal efficiently and seriously with social exclusion and growing environmental degradation.

The supranational clergy

Since 1980, not only has a non-state world aristocracy arisen, with more global power than the nation-states, but a powerful international bureaucracy has also been created. This body was not elected by the people, yet it establishes the rules of the economic game for the majority of the world's population. From 1980 the IMF and the World Bank acquired real supranational powers to dictate and supervise the economic policies of any developing country, affecting for good or evil the daily life of every one of its citizens, without being accountable to anyone.

In the face of this undemocratic supranational power, it is often argued that it is not the IMF or the World Bank that imposes such policies on the citizens; rather it is their governments that accept them. This may be the case in theory, but in practice governments had no alternative to the rigorous policies of the IMF and the World Bank. If a government rejected them, it was converted into a world pariah, with no access to international credit. The African leaders had an expression to describe this inextricable situation. They called it TINA, meaning, 'there is no alternative'.

This supranational power of the IMF and the World Bank was instituted in the 1980s, without the slightest international legal foundation. It was a response to the pressure brought to bear by the transnational banks and the creditor governments to obtain guarantees for the payment of the foreign debt. The IMF and then the World Bank were converted into strict supervisors of an adjustment designed to oblige the debtor countries to reorganize their economies and to pay their creditors.

The supranational monitoring, by the IMF and the World Bank, of the national economic policies of the Latin American, Asian and African countries is a new phenomenon in contemporary international relations. It clearly reflects the erosion of national sovereignty and the emergence of a supranational power over an entire category of quasi nation-states that call themselves sovereign.

In point of fact, under the supervision of the IMF and the World Bank, the so-called developing countries have lost democratic control of their national economic and financial policies.

Today all the governments of the underdeveloped countries are still subjected to public policies designed by an anonymous international technocracy that has not been elected by their citizens. Since they have no alternative, they are careful not to submit these supranational policies, which affect the daily life of their citizens, to their parliaments; much less do they seek the approval of a popular vote. Many newly elected governments immediately renounce the promises of their election campaigns and apply instructions from the IMF and the World Bank. Many elected governments in Latin America, Asia and Africa that call themselves democratic are rapidly being transformed, by supranational economic policies beyond their citizens' control, into very low-intensity democracies.

Such virtually exclusive dedication to the underdeveloped countries transformed the IMF and the World Bank into a powerful and missionary supranational high clergy. They were devoted to preaching, with great fervour and conviction, a 'single economic creed' for the salvation of all the underdeveloped countries from the nightmare of poverty and their conversion into emerging capitalist economies. This single creed was fundamentally contained in what John Williamson, of the Institute of International Economy, called in 1990 the Washington Consensus. This comprised a series of principles of economic policy that emerged from the continuous consultation of the Congress and government of the United States, the IMF and the World Bank with bankers, transnational executives, politicians and finance ministers. The central message of the creed was: the free market should regulate all economic activity; states should only intervene to maintain fiscal discipline, liberalize, deregulate, privatize the economy, as well as to make employment flexible, as the only way to gain access to credit and attract foreign investments.⁵

The success of the missionary task of the World Bank and the IMF was unquestionable. This supranational high clergy converted nearly all the countries of the underdeveloped world to the

creed of the Washington Consensus. The majority of the leaders of the poor countries believed that severe adjustment and the violent shock of opening up their national markets were the necessary penitence that would enable them to absolve the sin of poverty and to enter the holy land of prosperity, like new Singapores, Koreas or Taiwans.

Nevertheless, this success of the supranational high clergy was limited to its preaching and conversion work, but could not achieve tangible results in terms of salvation from the nightmare of poverty. Adjustment and the violent shock of opening markets have not yielded the desired success. While many poor countries stabilized their economies, lowered inflation and achieved modest economic growth, this only helped them to import more global products from the transnational aristocracy, without diminishing their poverty. After years of applying adjustments and reforming their markets, the great majority of Latin American, Asian and African countries are still trapped in the purgatory of neoliberal reforms, and have not managed to break free from the sins of unemployment and poverty. Furthermore, given their nearly exclusive dedication to the underdeveloped countries – the IMF and the World Bank neglected many important problems inherent in the current globalization process. They were not seeking solutions to control the highly volatile nature of the global capital speculation market.

The most glaring example so far of the failure of the supranational high clergy has been the collapse of the global financial system in October 2008, and the subsequent intervention of the governments of the United States and Europe – against the principle of the free market – with trillions of dollars to save banks and financial institutions from insolvency. Intervening to save capitalists who make bad investments flies in the face of the single creed that this supranational high clergy was preaching, since free economies have a very effective method of punishing reckless investors.

The failures of IMF and World Bank policies have awakened strong criticism around the world, from outstanding economists, business leaders and religious sectors.⁶ The criticisms are based

on twelve years of observation of similar neoliberal policies in the United States and Europe that have only increased social inequalities and unemployment. In the United States today, social inequalities are greater than before the Second World War, while in Europe unemployment has increased to unprecedented levels. The critics of the supranational high clergy wonder how such policies, which have created social exclusion and unemployment in the most prosperous countries, will be able to create no less than 1 billion new jobs and rescue from poverty 4 billion persons in Latin America, Asia and Africa, whose incomes are \$2–\$3 or less a day. According to the Human Development Reports of the United Nations Development Programme (UNDP), after twelve years of adjustments and reforms the income gaps between rich and poor people are widening continually – in the wealthy as well as in the poor countries. The World Bank itself is now concerned about world poverty and admits that the underdeveloped nations are a very long way from becoming newly industrialized countries.

It is important to point out that all the criticisms from American and European businessmen, economists and religious leaders of the policies of the IMF, World Bank and WTO are not directed against capitalism. On the contrary, all these critics recognize that the market economy is the most efficient economic system or, at least, the lesser evil of those that have been tried to date. Their argument is, rather, that the neoliberal shocks that are applied to the underdeveloped countries in order to turn them into modern capitalist economies overnight are a new experiment. They were never applied to the capitalist development of Europe, the United States, or Japan, or to the Asian NICs. All these countries grew as modern capitalist economies by protecting and helping their national capitalism and with subsidies to their agriculture. The United States itself has a most convincing example, in its defence procurement policy, of state industrial policy in favour of its national enterprises. For more than half a century, the defence procurement policy of the United States has acted as a true state intervention policy, granting subsidies to its industries and supporting its national technological development.

In spite of its historic failure, the supranational high clergy obstinately continues to believe in the theoretical postulates of neoclassical economics, which do not apply in reality as scientific law. The first of these is the theory of the ‘comparative advantages’ of the underdeveloped countries. According to this theory, a hyper-free market is required so that the advantages that the countries of the underdeveloped world have in terms of cheap labour and natural resources can attract the necessary transnational investments. In fact, today, the comparative advantages of the underdeveloped countries are no longer determining factors for attracting foreign investment. The transnationals do not place their investments according to the supply of natural resources or cheap and uneducated labour, but with a view to the hefty profits to be gained from the high rate of productivity provided by a highly skilled and cheap workforce and local enterprises with technological capabilities. These factors do not exist in the majority of the so-called developing countries. It is precisely for these reasons that the transnationals mainly invest in India and other countries in South Asia and in China.

The second theoretical postulate is reflected in the concept of ‘perfect competition’ of the Victorian economists and their present-day neoclassical followers. According to this theory, the most absolute economic freedom is required for demand to equal supply in the market. If they are equal, all the economy’s resources will be totally absorbed and all the economic participants will enjoy the highest degree of prosperity. In this theoretical world of competitive equilibrium, the state should not intervene in the economy to balance supply and demand. They are self-adjusting, and any intervention could be damaging for the actors, whether enterprises or persons. As a consequence, the state should be as small as possible, and fade away to the greatest extent feasible. This perfect equilibrium has never been attained in any national reality, no matter how many mathematical formulas are used to explain it in the modern textbooks on neoclassical economics.⁷ In practice, the only countries that have managed to escape from underdevelopment have been countries in which the state, by becoming an entrepreneur, has given support to the efficient capitalists with

potential comparative advantages for exporting, as happened in South Korea, Taiwan and Singapore.

Perhaps all this theoretical positing is not quite as utopian as the premises of the world proletarian revolution. Ironically, the supranational high clergy coincides with Marx on one central point of doctrine. Both want solely the material prosperity of the world and the disappearance of the state: Marx through the transnationalization of the proletariat, and the supranational clergy by means of the transnationalization of capital. Against his wishes, Marx achieved the contrary. His doctrine inspired totalitarian states. Will something similar happen to the supranational high clergy? Instead of global capitalist prosperity, will they produce a Darwinian world, plagued by unemployment, social exclusion, violence and environmental deterioration? Global indicators would suggest that the world is headed in that direction.

The international third estate

In face of the great emerging power of the new transnational aristocracy and the policies of the supranational high clergy embodied by the IMF and the World Bank, the power of the so-called developing countries has been marginal. Even the most powerful of that group, such as Brazil and India, have been unable to influence the rules of the international economic game.

The feeble economic power of all those countries is revealed by the fact that each of the 100 most powerful transnational corporations sells more than the export totals of each one of 120 so-called developing countries. What is more, the twenty-three most powerful transnationals sell more than the exports of the developing countries with the largest economies, including India, Brazil, Mexico, Argentina and Indonesia.⁸

During the Cold War, the countries of the so-called Third World acquired in different degrees a strategic advantage, thanks to the interest of the superpowers in gaining friends and allies. The policy of non-alignment provided some of these countries with a strategic advantage that permitted them to manoeuvre between the two blocs and obtain assistance from both. The clearest example of this was Yugoslavia. That country was virtually a byproduct of the Cold

War. Its estrangement from Moscow, coupled with the strategic significance of the Balkan region, earned it ideological tolerance and great financial support from the Western powers, which gave it room to try out an economic model based on self-management. When the Cold War ended, so did the financial subsidy. Yugoslavia became non-viable and imploded in a bloody war.

To a lesser degree than Yugoslavia, India, Indonesia, Algeria and Egypt also obtained political support, some economic advantages and equipment for their national defence, by manoeuvring between the two rival blocs. The other option for securing a position of strategic advantage during the Cold War was to throw all one's support behind one of the superpowers. An example of this extreme position was Cuba, which fought for the interests of the USSR. This alliance provided Cuba with a petroleum subsidy and high prices for its sugar exports and permitted it even to play a geopolitical role in Africa.

Today, with the end of the Cold War, most underdeveloped states have lost the strategic importance that made them recipients of aid or investments. International aid has considerably diminished, and the poor countries do not receive productive foreign investments in any significant amount. Moreover, in political terms, they no longer receive the special, non-reciprocal and differentiated treatment they used to. In consequence, they have to compete on equal terms with the developed countries. By the end of the twentieth century, almost all the poor quasi nation-states had been strategically abandoned to the mercy of the global market and the technological revolution's process of natural selection.

Within this trend, only a few of the so-called developing countries still have strategic advantages, as mega-exporters of oil or food, two resources that are becoming more important every day because of the world demographic explosion. Among these fortunate few are Saudi Arabia, Kuwait, the Arab Emirates, Venezuela, Nigeria, Iran, Kazakhstan and Azerbaijan, great exporters of petroleum. They also include Argentina, because of its position as one of the world's leading producers of grain, as well as those countries that are situated on straits or canals that are vital to the world economy – Iran, Oman and Saudi Arabia again, bordering

the Straits of Hormuz, through which a high proportion of the world's petroleum passes, and Egypt and Panama, as a large percentage of the world trade in goods transits through their canals.

Ironically, at the end of the Cold War, the only source of strategic advantage for some countries is the danger their instability represents for their rich neighbours. Indeed, some rich countries have no choice but to help their poor neighbours so that they do not become unstable, thereby avoiding waves of clandestine immigrants or refugees entering their own territories. In addition, the rich states help their poor neighbours to become buffer states, that is, territories that serve to contain the illegal immigration from other, even poorer countries.

Just as the Roman Empire created *limes* (or buffer zones) to contain the barbarian tribes, many rich countries will try in the twenty-first century to contain the new barbarians by stabilizing their poor neighbours with credits and investments so as to turn them into buffer states. Being a poor state that borders on a prosperous country or region will gradually grow more remunerative as the economic non-viability of the countries of the South creates increasing numbers of illegal immigrants and refugees.

The countries of the Maghreb are currently acquiring this type of strategic advantage as the poor neighbours of Mediterranean Europe. These countries will double their population by the year 2020, causing a further rise in unemployment – which already affects 40–50 per cent of their young people. Sooner or later, Europe will have to stabilize these countries, not only in order to contain fundamentalism and the illegal emigration from the region, but also to convert them into buffer states for sub-Saharan Africa. The population of the latter is growing explosively, and processes of national disintegration have already begun there, causing waves of illegal immigrants and refugees to head towards Europe.

Mexico too is acquiring a strategic advantage as a buffer state. The United States has chosen this country as a partner in order to stabilize it and to avoid being affected by immigration from both Mexico and Central and South America. The strategic advantage enjoyed by Mexico as poor neighbour and buffer has been confirmed with the creation of the North American Free Trade Area

(NAFTA) and with the colossal financial rescue of Mexico by the United States government in 1998 to prevent its latest bankruptcy. Only time will tell whether the United States has made a good investment. Until now poverty has not abated in Mexico, and nor has the illegal northward migration.

With these few exceptions, the deterioration of the strategic situation of what has been called the Third World is such that now the poor countries of Latin America, Africa and Asia have to fight for markets and foreign investments against the former rivals of capitalism: China, Russia and eastern Europe. The ex-Communist countries are, ironically, more strategic than the underdeveloped countries, because if their transition to capitalism should fail, the rich countries' stability would be threatened with greater unlawful immigration, mafia-type intrigues, trafficking in nuclear material, and even waves of refugees from the ensuing civil wars.

At the beginning of this century the majority of the poor countries of Latin America, Africa and Asia do not represent a direct threat, because of their poverty or non-viability, to any powerful neighbour. Nor do they possess any strategic advantage to increase their international negotiating power. The Non-Aligned Movement and the Group of 77 continue to perform their diplomatic ritual in the United Nations, although their negotiating position is virtually extinct. The Third World as a political entity has ceased to exist. Perhaps, most probably, it never did exist. It was just a diplomatic stand that appeared to be solid and to possess a negotiating power that it never really had. In point of fact, even during their halcyon days as negotiators during the petroleum crisis of the 1970s, the Group of 77 and the Non-Aligned Movement failed to extract any concessions from the aristocracy of the industrialized states in order to revalue the prices of raw materials and to lay the foundations for a new international economic order. The maximum that these countries obtained was that important conferences were convened, such as those of UNCTAD and the North–South Summit dialogue.

The Uruguay Round of multilateral negotiations (1986–94) and the creation of the WTO were the clearest proof to date of

the so-called developing countries' lack of negotiating power, and a definite demonstration of the growing power of the new world transnational aristocracy to obtain through the industrialized countries new rules for international trade favourable to them. Although the Uruguay Round was the longest, most ambitious and most complicated round of trade negotiations in the twentieth century, and even though eighty-one developing countries took part in it, during its final decisive years 1992–94 all the delegations of those countries in Geneva found themselves having to wait for the United States, the European Union and Japan to reach agreement on all the areas under negotiation, without themselves having been able to intervene or to change anything in the texts that the rich countries had accepted. The negotiation became virtually an exercise among the industrialized elite, aimed at harmonizing the global interests of the transnational corporations. The text of the Final Act of the negotiations was presented to the developing countries as a *fait accompli*.

The countries formerly known as the Third World were always too politically, economically and culturally heterogeneous to join forces as a world front based on common interests. Now, their interests are still more diverse and distant, as the result of a greater differentiation among them in the levels of national misery. Divided into different groups with greater or less poverty, the majority of these countries have not begun to compete in the prosperity rankings with the old aristocracy of the industrialized countries. Instead they continue to compete among themselves in the world poverty ratings. This situation is a major obstacle to true economic globalization, since it prevents the majority of the world's populations from becoming consumers of products from the transnational enterprises. For the devotees of Adam Smith's *The Wealth of Nations*, ironically, the concern today seems to be the poverty of nations.

Since 1990, the UNDP has used the Human Development Index, which assesses national misery more accurately than GDP does. This new formula combines GDP per capita with two other variables: life expectancy and access to education. It also takes into account profiles that measure the provision of basic human

needs such as health care, housing, sanitation, drinking water, and food. This equation gives a truer view of real living standards than the mere growth of GDP, since it is often the case that GDP growth does nothing to improve the living conditions of the majority of the population.

With this index, a world ranking of human development has been established for 194 countries, providing concrete evidence that poverty is the rule, and human well-being the exception. According to the poverty rankings published in the Human Development Report 2009, of a total of 135 'developing countries' only a dozen enjoy the luxury of having fewer than 30 per cent of their population living in poverty. The rest, the great majority – 123 countries – have an average of more than 46 per cent of their populations subsisting below the poverty line despite half a century of development theories and policies.

Listed in the highest ranks, with the highest degree of human development in 2009, are the traditional aristocracy of the industrialized powers and the three newly industrialized countries: South Korea, Singapore and Hong Kong (China). The only underdeveloped countries that are close in ranking to the world industrial aristocracy are Costa Rica, Argentina, Uruguay and Chile. Besides having higher per capita incomes than the rest of the so-called developing world, these countries appear at that level because they offer greater social integration, more education, and higher life expectancies. All the countries of Latin America, Asia and Africa that are below them in the ranking have very mediocre or low human development, with lower life expectancies and insufficient provision of the basic necessities such as food, education and health care.

Three mega-countries that are considered to have the potential to become world powers in the twenty-first century, Brazil, China and India, are badly placed in the human development ranking. In spite of its relative industrial development, Brazil has a mediocre human development. The same is the case with China and India. Paradoxically, both the latter are nuclear powers, even though they have a low level of human development and great sectors of their populations are living in poverty and neglect. These three giants of

the so-called developing world will need to make enormous efforts to provide employment for their explosive urban populations and help them to free themselves from poverty to form a middle-class majority. If these countries fail in this endeavour, the twenty-first century has serious socio-political disturbances in store for them.

The World Bank's measures of poverty and extreme poverty, based on an income of \$2 and \$1 a day, respectively, and the UNDP's human development rankings confirm the existence of an enormous mass of national misery in the misnamed 'developing world.' They also show that the huge numbers of people who are victims of low purchasing power or utter destitution prevent the formation, in the majority of these countries, of genuine market economies with national dimensions. No matter how much the economy is liberalized, deregulated and privatized, a great part of the population remains outside the national and the global markets. Poverty prevents the expansion of a large and productive middle class made up of consumers aware of their citizenship. That is a prerequisite for these countries to become modern, capitalist, democratic nation-states capable of integrating efficiently, along with the majority of their populations, in the global economy.

The 1.3 billion people living on less than \$1 a day and with a deplorably low standard of human development are not the only, or even the major, obstacle that will prevent the majority of these countries from being integrated into the global economy in the future. Another impediment, as forbidding as their social misery, is their national scientific and technological destitution.

On the international scene, the scientific and technological development of a country is calculated by the number of scientists and engineers it has, the quantity of computers, and expenditures in scientific-technological research and development. Today the misnamed developing countries, accounting for three quarters of the world's population (5 billion people), possess only 10 per cent of the world's scientists and engineers. Of these, 7 per cent are in Asia, 1.8 per cent in Latin America, 0.9 per cent in the Arab countries and 0.3 per cent in the rest of Africa. These countries have only 3 per cent of the computers and invest only the paltry sum of \$3 billion for scientific research and development.

In contrast, the world economic aristocracy, with one sixth of the world's population (1 billion inhabitants), has 90 per cent of the world's scientists and engineers. Of these, 90 per cent are found in the United States, the European Union and Japan. This aristocracy also possesses 97 per cent of the computers and invests more than \$220 billion in research and development each year.

The underdeveloped countries' national scientific and technological deficits will have serious repercussions on the viability of all these economies in the new century, since one of the new characteristics of globalization is the changes taking place in the structure of the world demand for manufactured goods and services. The demand for manufactures and services with a high technological content is growing far more rapidly than the demand for raw materials and manufactures that are only slightly processed. The world demand for high-technology manufactures is growing at 15 per cent per year, while the demand for manufactures with low technological intensity is growing at only 5 per cent, and the demand for raw materials at between 2 and 3 per cent. Nowadays, enterprises are obliged continually to innovate technologically in order to remain competitive. The economies that cannot do this will be gradually excluded from the global market.

The only so-called developing countries that have companies that invent and export software are China, India, Taiwan and Singapore. These countries and also Brazil participate in joint ventures with transnational corporations in high-technology industrial projects. Nearly all the remaining so-called developing countries are left on the sidelines, with negligible amounts of high-technology, or even medium-technology, manufactures for export. Latin America is an almost barren source of exports with high technological content. The only exception is Brazil, with its aeronautical and military industries.

The technological modernization that has become vital for any country hoping to compete in the globalized world will prove extremely difficult for many to achieve. This is the case not only because the study of applied science has been largely abandoned in the majority of the Latin American, Asian and African countries. It is also a result of the excessive protection of intellectual property

exercised by the industrialized countries today, which makes it practically impossible for the poorer countries to copy and adopt foreign technology. During the Industrial Revolution, many of the now-industrialized countries did not have to face international barriers such as these. Most countries at that time did not have national patent laws or, if they did, they were not connected to international commercial sanctions. This allowed countries to reproduce technologies developed elsewhere. Nearly all machinery was copied, as were many chemical formulas, the automobile, the aeroplane, the radio, radar and thousands of other inventions, without a single country being called a pirate and threatened with economic sanctions.

Today, the growing scientific and technological deficit in the underdeveloped countries and the enormous difficulties in making it good reveal better than any other indicator that it is a euphemism to call these 'developing countries'. They are unable to compete globally to obtain resources from the world market so as to increase the incomes of a growing and expanding urban population that is trying to subsist on the feeble income from low-technology exports. The greatest challenge facing the misnamed developing countries in the twenty-first century will be to avoid the trap of scientific and technological backwardness resulting from their lack of historical cultural interest in scientific theory and applied science.

The huge expansion of poverty and the current indices of low human development, coupled with an enormous lag in scientific and technological knowledge, make the plight of the underdeveloped countries look very much like that of the third estate in the *ancien régime* of France. Indeed, these countries together constitute the majority of the world's population, just as the third estate was the majority within pre-revolutionary France. Just like the third estate in France, all of the underdeveloped countries are today at the mercy of the power of an aristocracy, the transnational aristocracy, and dominated by doctrine – of the supranational high clergy of the IMF and the World Bank. The great difference with the French third estate is that this international third estate has no revolutionary potential and does not constitute the embryo of a new middle class of newly industrialized countries with the power

to negotiate with the new transnational aristocracy and with the supranational high clergy.

Because of their scientific and technological indigence, the great majority of these countries are caught in a real non-development situation. For decades they have tried to develop, using all sorts of models and ideologies, with no success in diminishing their poverty. After more than twelve years, they continue to follow with devotion or resignation the single creed of the IMF and the World Bank, granting all kinds of concessions to the transnational aristocracy in the hope of joining the global economy. However, the transnational investments and technology have not materialized, and these countries' lack of technological modernization prevents them from competing and increasing their income. Since they cannot work miracles with the scant income they obtain from exports (primary and with low technological content), to satisfy the growing needs of their exploding urban populations they have no option but to sink further into debt. The economic history of the so-called developing countries is nothing more than a series of growing debts and insolvencies.

3 | International Darwinism

From Adam Smith to Charles Darwin

In *On the Origin of Species by Means of Natural Selection* (1859), Charles Darwin maintained that by a law of natural selection only the species fittest to compete for their survival can reproduce and indeed survive. Little did he suspect that some 140 years later, at the dawn of the twenty-first century, a global market and a technological revolution would apply the same rule, allowing only the fittest people, companies and national economies to survive. Thus those deemed less competitive are marginalized and seen as economically unfit species. The only difference between contemporary economic, technology-based Darwinism and the natural law is that the latter discarded the unfit species over millions of years, while the current market and technology-driven selection process can put thousands out of work within months, expel competing companies from the market in a couple of years, and take no more than a decade to make many nation-states into non-viable economies.

By the mid-1980s, the Soviet system, based on a centrally planned economy in a pointless attempt to dispense with markets for a period of fifty years, began to collapse. At the same time, radically *laissez-faire* policies started to prevail in the world, particularly driven by the more conservative forces in the Western world, typified by the Reagan and Thatcher administrations. When the Berlin Wall fell, in 1989, these policies took on fundamentalist features. The long-forgotten prophet Adam Smith was revived to remind all men on earth that society does not exist, that only the market is real, a market where individualistic self-centred interests oppose one another to create happiness for all.

Today, Adam Smith is viewed as the inspiration behind the new world economic order. In his best-known work, *The Wealth of Nations* (1776), he tries to show that the pursuit of individual

interest benefits society as a whole. However, this work is by no means a fundamentalist vindication of the prevalence of market forces in the economy. Contrary to the interpretation of radical advocates of neoclassical theory, Adam Smith believed in the importance of social factors and moral concerns.

In *The Wealth of Nations*, individual interests are portrayed as the driving force behind a successful economy, but what Smith refers to as individual interest is not selfishness or antisocial ambition. Smith, who was a moralist, considered that personal interest was, indeed, the engine of a successful economy, but only if it was contained within a framework of social morals, which Smith called ‘reasonable conduct’. Following the traditional Anglo-Saxon political thinking of Hobbes and Locke, Smith assigns an important role to the state, not only through an efficient legal and judicial system, but also as the entity responsible for guaranteeing workers’ living standards. Smith thought that their living standards could deteriorate if the division of labour produced enormous material benefits but, through the individual’s over-specialization, impoverished their intellectual life. He feared that over-specialization could render workers incapable of maintaining rational conversations or conceiving generous or noble feelings. As a result, he felt that workers would neglect their personal duties and the interests of their country. Therefore, for Smith, the state is duty-bound to resolve these human limitations, ensuring that each individual exercises ‘intellectual and social virtues’.¹

Prior to *The Wealth of Nations*, Smith published another major work, *The Theory of Moral Sentiments*. Its main theme is the human proclivity to live in society and the need we all feel for our behaviour to be approved and appreciated by others. For Smith, satisfying individual interests is encompassed by this ethical proclivity of man, so that the individual economic interests of a person or a company do not allow for the unbridled pursuit of profits regardless of the moral and social consequences of such pursuit. Smith was not an economic Machiavelli. He did not attempt to justify the predominance of individual interests at any cost, but rather their dominance within the boundaries of moral sentiments designed to control egotism.²

His successors, the radically neoclassical economists and the ultra-liberal politicians, overlook the moral and social climate in which, according to Smith, the economy should operate. The positive egotism to which they refer, and which disregards all social and ethical concerns, bears no relation whatsoever to the moralist thesis argued by Smith in *The Wealth of Nations* and *The Theory of Moral Sentiments*. Partial quotations are taken from the former, while the latter is totally ignored.

Fashionable economists and politicians who revere Adam Smith have not only ignored the moral and social context in which his works were written. They have taken things a step further by trying to express in mathematical terms the metaphor of the invisible hand of the market, which Adam Smith used to show that, in a free market, balance is always restored between supply and demand, and which he believed guarantees that true consumer preferences are always satisfied. Modern neoclassical economic theory has formulated supply-and-demand mathematical calculations under the pretence of making economic policy into a pure science. Adam Smith never intended this metaphor – which appears only once in the four hundred pages of *The Wealth of Nations* – to become a hard-and-fast law of nature expressed in mathematical formulas. He never claimed to have proved that the market operates with the same degree of predictability as Newton's law of gravity.

To present economics as a pure science and the market as an ethically impartial law of nature, which decides which person, company or nation is fit to compete and which is not, regardless of the unemployment, poverty or degree of underdevelopment of each country, is to turn Adam Smith's description of economic freedom and moral responsibility into global market Darwinism. Indeed, the underlying neoclassical economic reasoning followed by the late-twentieth-century ultra-liberal politicians instinctively uses the same basic axioms posited by Charles Darwin: dualism, conflict and evolution.

For Darwin, 'dualism' is the antithesis between the species, on the one hand, and the environment, on the other. Species are constantly adapting to the environment in an effort to survive. According to current neoliberal economic thinking, the world

market is the natural environment to which one has to adapt in order to survive. Those persons, companies or national economies that fail to adapt are punished and pushed onto the sidelines as economically non-viable species. It follows that the market is not a human creation, but rather a natural environment, beyond our will: an invisible hand, devoid of moral judgement, a mechanism of natural selection that can eliminate jobs, stores, companies, and make national economies non-viable. All problems will be solved by the natural market forces. They will select the persons, companies or national economies that are efficient, exactly as nature selects the most fit among the species, discarding the unfit.

Conflict, for Darwin, is the natural state in which all creatures live: as predators. This means survival and reproduction. According to the neoliberals, companies and national economies must also be predators (tigers), waging the fiercest economic competition. Only the most predatory economies prevail and reproduce transnationally, multiplying their growing returns. Financial speculation, although it generates no jobs, and technology, although it destroys them, must both become the means of achieving the highest possible profits and allowing for a mutation towards more economically fit and powerful species.

According to Darwin, evolution makes species change from primitive forms to more complex and subtle forms through various stages of mutation. This ability to mutate enables species to triumph and ultimately endure over the centuries. Well-adapted species can replicate themselves and reproduce. This scientific axiom, too, has been automatically transferred to contemporary economic thinking. Companies and national economies must adapt (innovate and develop) in order to conquer in the economic environment and prevail as efficient, viable economic entities. Companies can only evolve and reproduce through technological transformations so as to succeed on the global market, generating an ever-rising spiral of profits and prosperity. Countries that have not yet completed their evolutionary process will do so through the liberalized global market until they turn into modern, developed, capitalist economies.

The Darwinian concepts of dualism, conflict and evolution reflect cultural reflexes ingrained in the subconscious of Westerners for generations. As such they resurface unfettered when social and economic events are considered. In this way, they serve to legitimate special interests and privileges. Concepts of dualism, conflict and evolution have been applied to modern economic and social reasoning both in Marxist rationalism and in the current neoclassical economic rationale that underpins capitalist globalization. Both schools of thought refer to Darwinian equivalents because they both stem from the ideology of material progress spawned by the Industrial Revolution.

Marx uses equivalents of Darwinian dualism, conflict and evolution. That is how he justifies the class struggle, the ensuing revolution and thus predicts the victory of a new, fitter species: the proletariat. Indeed, he wanted to dedicate Volume I of the English translation of *Das Kapital* to Charles Darwin. His ideological disciples, such as Lenin and Stalin, were enamoured of material progress and the idea of using the mechanisms of social accumulation and industrial production to foster the development of a new, fitter society: communism. The Soviet commissars became the omnipotent leaders of a megalomaniac drive towards industrial progress, which was responsible for massive human sacrifice, gulags and environmental crimes. The economic fundamentalism by which present-day capitalist globalization is being justified is no less reliant on Darwinism. It is wedded to productivity and competitiveness, whatever the social and environmental cost, so long as the highest rate of consumption and individual accumulation of material goods is achieved. Struggle and competition in the marketplace is natural, it is the course of life; the fittest person or company succeeds. The weaker go bankrupt or become unemployed. This is how, without the slightest pang of conscience, an analogy is established between Darwin's natural selection – which, like any natural law, is ethically impartial – and human economic activity – which cannot be morally neutral.

The underlying Darwinism of the neoclassical, ultra-liberal message that inspires current capitalist globalization turns the economy into the paramount factor determining all other options, whether

political or social and even cultural; nothing could be closer to the Marxist ideology. However, the archetype is not the robot-like *homo sovieticus*, but rather the *homo economicus*, whose sole motivation is money, the ability to consume more material goods, who is aggressively competitive, a kind of predator loose in the Darwinian jungle of social and economic deregulation. In this jungle, not only companies but also individuals, each social group, each community, must be the fittest, the strongest, the best. Those who are not competitive must be eliminated from the economic arena, regardless of social, moral or environmental implications. This is a zero-sum game, where there is no cooperation. You win or you lose.

Dispossessed of their ethical dimension, the laws of economics, market forces, are equal to laws of nature: amoral. Like the law of gravity by which the earth revolves round the sun, they operate regardless of whether we are good or bad, or whether lions prey on zebras. This whole ultra-liberal conception is closer to the biology of Charles Darwin than the economic policy of Adam Smith who, as already noted, did not ignore the moral significance of economic activity.

Smith would not have understood the rules by which the neo-liberal global game is being played. These rules allow goods and capital to circulate and compete freely around the world, but set obstacles for people in search of a job. People cannot travel and compete freely: stringent immigration laws are freely enacted to prevent the globalization of the labour market. In this way, neoliberalism does not apply to people – unlike Smith's liberalism, freedom does not extend to all the factors of production. The author of *The Wealth of Nations* would not be able to grasp, either, how economic growth can be attained without job creation. More impossible still for him to comprehend would be a global economy whose main driving force is the financial markets which produce no real wealth for the nations of the earth.

The global jungle

Nothing could be farther removed from the ethical and liberal principles underlying Smith's economic policy or closer to a jungle governed by Darwin's law of natural selection than the current

process of globalization. Indeed, the world market functions like a law of natural selection from which no one can escape, neither persons, nor companies nor nations. All must be resigned to adapt to this law, to accept unemployment, to witness entire sectors of the national economy being wiped out, and to welcome the generalization of consumption patterns that the planet's ecosystems cannot sustain.

In this global Darwinian jungle, the underdeveloped countries that fail to modernise technologically are not the only unfit species. The individuals and social groups that are less skilled in grasping and using new technologies are unfit too. Thus 30 per cent of the global workforce are unemployed or underemployed, and poverty and social inequalities have worsened throughout the world. There are close to 100 million poor people in the Western industrialized countries. If we add Russia and eastern Europe, the total of poor people reaches some 200 million. In the underdeveloped countries, there are almost 1.3 billion living in extreme poverty. According to the United Nations, the ratio of the income of the world's richest 20 per cent to that of the poorest 20 per cent rose from 30:1 in 1960 to 60:1 in 1991 and almost 80:1 at the beginning of this century. The number of poor people has grown in practically every country, and the middle class's income has not risen, as it did during the sixties.³

The Achilles heel of the world economy, as it turns into a global supermarket, lies in the underdeveloped world's lack of purchasing power. Of a total world population of 6.8 billion, there are scarcely 1.8 billion consumers who can really afford to buy products and services on the world market. The only products being purchased worldwide are those of the transnational entertainment industry, such as music, films, television series and cheap consumer products such as jeans, trainers, cigarettes and fast food. Nowadays, only a minority of consumers in the world have access to new cars, computers, video cameras, digital phones, faxes, the internet, quality clothes, tourist trips abroad or international credit cards.

According to the calculations of certain transnational banks, of the 6.8 billion inhabitants of the planet, only some 900 million have enough income to be 'bankable' or to be offered an international credit card. Therefore the great majority are not 'bankable', have

no access to international credit and thus cannot take part in the globalization of consumption.⁴ Nevertheless, most transnational corporations consider that there is still enough untapped market potential in the world. What matters to them is that national markets become increasingly liberalized so that they can seek the narrow strata with high incomes in the underdeveloped countries. India, once it has switched to the rules governing the game of global liberalized trade, with a population of over 1 billion will offer a market of at least 200 million people with adequate purchasing power, leaving the remaining 800 million Indians gazing at the shop windows. From the transnationals' standpoint, these 200 million people are equivalent to the entire US market (a mere trifle), enough to keep them in business for some time. This approach – of increased global prosperity with great social exclusion – is also applied to China. Transnationals do not aim to sell to the entire population. It would be sufficient for 300 million people in the upper income brackets, out of the total 1.3 billion Chinese, to become their customers, though this may create a dangerous gulf between two Chinas, one marginalized and the other comprised of consumers. Likewise, it is irrelevant that a major part of the population of Brazil, or Indonesia, or Russia, or Mexico or the Philippines is marginalized; what matters is capturing the high-income minorities.

Another feature of the global jungle is that it has created a vast planetary gambling house. Every day, in this world casino, a number of creative games in financial speculation are played, involving investors, mutual funds, stock exchanges, currency markets, bonds and securities. Billions of dollars' worth of transactions are made daily, trillions per year, mainly bearing absolutely no relation to trade or to direct transnational investments to create jobs. A week's worth of speculative transactions on the world currency markets is virtually equal to the aggregate total value of international trade and foreign investments in a year.

This gambling house never closes. After trading stops in Europe, it continues in New York, followed by Tokyo and Hong Kong. By means of a worldwide satellite-based telecommunications system, thousands of brokers, bankers, investors, capital managers,

executives and even private individuals, instead of playing poker, blackjack or roulette, through their computer screens bet billions of dollars on a global scale, buying shares, selling bonds, undermining the value of a currency, fixing a futures price, playing with derivatives and performing a variety of sophisticated and volatile financial speculations. The point is to make a lot of money, and fast. The main difference between this world casino and an ordinary casino is that it impacts even on those who do not bet. A change in the value of a currency or speculation on the price of a raw material can produce huge gains, but can also cause a flight of capital or a crash on the stock exchange, and can drive companies to bankruptcy and lead to people losing their jobs.

After 1990, investors in the world casino became more predatory. Nowadays they move in packs, invest heavily, make big profits, are extremely ambitious, and fly into panic at the slightest hint, not of losses, but of diminished returns. They tend to invest disproportionately in countries that become their favourites but, at the first cloud, they flee in a stampede leaving their previously cherished emerging currencies and economies devalued and devastated. In 1994, a capital stampede made Mexico insolvent; in 1997 another capital stampede turned economic tigers, including South Korea and Malaysia, into vegetarians and inflicted harsh punishment on the underdeveloped economies of Thailand, Indonesia and the Philippines.

In October 2008, the great, global, speculative, neoliberal casino exploded like a supernova, creating a black hole that led to the collapse of a major part of the global financial system and also to a great extent 'swallowed up' the global economy. The scale and the velocity of the global contraction were unprecedented, due to the free fall of production in the industrialized countries and the reduction of exports, imports, global consumption, foreign investment and international credit. The sales of all the great transnational companies, from auto manufacturers to makers of electronic equipment, fell as the global consumption of their products diminished, leading them to reduce production, close factories and fire thousands of workers on all the continents. In 2009, millions of additional unemployed people around the world resulted

from the deglobalization of production, capital, merchandise and migrant workers.

The thirty-six major exporting countries of the world reduced their exports by 20 per cent on average. The same thing happened with the Asian countries that were the stars of globalization. The exports of China, India, Hong Kong, Taiwan, South Korea and Singapore fell significantly. This shrinking commerce left thousands of ships stranded at docks around the world.

In order to face this deglobalizing recession, economists and politicians who previously were given to fevered preaching of the neo-liberal mantra tossed Adam Smith in the rubbish bin and converted speedily to neo-Keynesianism, implementing reactivation packages and bank rescues that passed the \$2 trillion mark. The sudden converts to Keynesianism expended a special effort to refloat the moribund banks and to shore up the guilty bankers who – in the midst of the crisis – had the gall to continue assigning themselves million-dollar bonuses. In this fashion, the governments behaved as veritable servants of the speculative financial system, turning a deaf ear to the advice of Nobel laureates Joseph Stiglitz and Paul Krugman, who recommended temporarily nationalizing the insolvent banks with a view to reforming and recapitalizing them.

Despite the communiqués of the Group of 20, no coordinated policy for dealing with the crisis has been formulated by the great economic powers. This lack of global governance could convert the present recession into an era of low growth for the global economy, causing as well an era of high unemployment and social devastation with unimaginable consequences for the world.

Neither globalization nor deglobalization are intrinsically good or bad; it all depends upon the orientation they are given. For example, the globalization of human rights, sport, and cultural exchange among nations is positive. In contrast, the globalization of the traffic in drugs, arms or human beings is negative and should be halted. Economic globalization (1980–2008) has not been positive, since – in addition to the growth in social inequality which it caused – the speculative financing of the capitalist casino grew insanely, to the point of dominating the real economy and producing the collapse of a major part of the global financial system.

The value of the financial assets in the United States soared to 450 per cent of its total GDP, and in Europe reached 356 per cent. In addition, the number of countries in the world whose financial system exceeded the value of its GDP grew from 33 to 72. The most serious aspect of this was the fact that this enormous process of 'financialization' of the world economy was achieved by inventing new, non-transparent and complicated speculative operations that led to the collapse of a major part of the financial system.

Today the financial system's problems are too large to be resolved. The global debt accumulated by the financial system, as a result of speculative operations such as credit default swaps (CDS), derivatives trading and the proliferation of securities and other toxic products, has reached \$160 trillion, or three times the world GDP. Yes, three times the combined production of all the world's economies. This system cannot be saved.

The global casino financed by toxic means pervades the entire world economy. Now this negative function must be deglobalized. The crisis is an opportunity to deglobalize these noxious financial products, to reform and regulate the global financial system, and to put an end to speculation, thus orienting finances towards genuine production of goods and services that create jobs. The crisis has opened a unique opportunity to reform the financial casino. However, the United States government's rescue packages to save the very capitalists who produced this Wall Street crash were enacted with no sign as yet of a true reform of the system. Even worse, these measures run counter to the laws of market forces so dear to the neoliberal bankers.

In fact, the trillions of dollars spent on rescuing irresponsible bankers have shown more clearly than anything else that neoliberal globalization is a false liberalism. Intervention to save capitalists who make speculative and risky investments is directly contrary to the laws of the free market. The market's 'efficient' method for punishing investors who run risks is bankruptcy. The recent rescue packages have gone against the 'invisible hand' of the market and have used taxpayers' money to save the global speculators responsible for the crisis.

In this way, a kind of financial socialism has been employed to save the capitalists. The payment of these speculators' losses has been socialized at the expense of a hundred million taxpayers who have never gambled in the global casino. Thanks to this rescue without reform, a great part of Wall Street has returned to its speculative practices as though nothing had happened. The real reform of the capitalist casino remains elusive.

Not only does the global jungle continue to be a financial gambling house, but it also globalizes consumption patterns that are incompatible with the planet. All contemporary consumption patterns are based on an economic model in which nature is viewed merely as another raw material to be consumed. Farmland is taken over by urbanization, reducing food production. Overfishing is depleting fish stocks. Greenhouse gas emissions create air pollution leading to climatic changes, droughts and floods. Chemical and nuclear industries continue to bury their toxic waste. Goods are shipped across the world wrapped in kilometres of paper and cardboard derived from deforestation.

With the globalization of consumption patterns, rubbish is also globalized. Mountains of nuclear, chemical and toxic waste, along with syringes, bandages, hospital gauze, paint, plastics, refrigerators, old tyres, clothes, metal objects, ceramics – all the things the industrialized countries discard – are systematically shipped to new global rubbish dumps in the underdeveloped world and in eastern Europe. What would happen if the same consumer-based prosperity were achieved in the underdeveloped countries? If globalization were to succeed, would it be possible to recycle the additional rubbish produced by 5 billion new consumers? Or would we have to start changing our consumption patterns?

If industrialized societies' consumption patterns are globalized, the earth's biosphere will be unable to sustain them. It is an established fact that while widespread damage to the environment started with the Industrial Revolution, its pace has accelerated exponentially with the emergence of contemporary mass consumer societies. The aim of the world jungle, however, is nothing other than to extend the unsustainable consumption patterns currently followed by some 1 billion people to the almost 5 billion inhabitants of the

‘developing’ world. The lifestyle in the highly consumerist societies is promoted throughout the world. The irony lies in the fact that unemployment, poverty and marginalization prevent its spreading; otherwise the earth’s biosphere would be rapidly destroyed by 5 billion international credit cards.

According to the present transnational globalization model, the planet is far from becoming a world village in which all nations partake in prosperity and nature conservation. It is rather like a string of planetary ghettos in which rich people, the consumers of the global economy, share the same lifestyle and destroy the environment. The inhabitants of Beverly Hills and the rich neighbourhoods of Mexico City, Lima, Johannesburg or Bombay, despite the continental distances between them, live in very similar conditions, in contrast with the most dissimilar conditions of the surrounding neighbourhoods. From Los Angeles to Vladivostok and from Rio to Manila, the poor, unemployed majorities, with no prospect of increasing their incomes, live next door to small elites in their walled-in properties patrolled by private police forces, consuming all sorts of exquisite global goods.

This Darwinian global village has a high street made up of the elegant ghettos of all the cities in the world. Slums, shanty towns and hovels proliferate in the back streets. In these new global urban areas – the largest and most populated human settlements – water, energy and food are scarce; sweatshops mushroom, along with air pollution, illegal work, child exploitation, unemployment, prostitution, petty crime and delinquency. Very soon, from these precarious and unhealthy global settlements – teeming with human energy, informal sector activity and unemployment – will spring the fate of many poor countries, for they will produce the new politicians, businessmen and professionals, and they will spawn the delinquents and extremists who will threaten the established order.

Deproletarianization and dematerialization

Guided by a Darwinian market, technology acts as the decisive factor in discarding those who do not adapt to its progress. Today’s technological revolution is eliminating the huge factories and the proletarian populations that ran them, and replacing them with

smaller production centres that are substantially automated, rife with computerized information and temporary jobs. This type of modernization is occurring in nearly all branches of industrial production. The result is an unstoppable process of world deproletarianization.

This shift from a world economy based on factories to one based on intensely computerized enterprises is more radical and traumatic than the nineteenth-century change from agriculture to factories. The labour-intensive Industrial Revolution was more gradual, allowing time for the agricultural society to adjust to the machine age.

In addition, the Industrial Revolution created more jobs than it destroyed. In contrast, the computer revolution can destroy more jobs, and do so more violently. It will not necessarily create better jobs for the large majority of workers, and it will deepen social inequalities. The computer revolution happens more rapidly, and its social effects are more drastic. The unskilled workers are simply discarded. If those who lose their jobs and those who are not trained in the new technology do manage to find employment, they have to be satisfied, in many cases, with lower salaries than before.

Modern production is displacing the proletariat. There are fewer jobs per unit of production. Within the labour force, the proportion of common labourers has diminished in recent decades. According to a study by Professor Peter Drucker, in the United States and in Europe in 1960 there was one labourer in every four employed persons. Now the proportion is one in seven. The technological revolution has not stopped at the factory door, but has also invaded the office. By extension, deproletarianization has penetrated the big bureaucracies, eliminating them by dint of software.

As a result of deproletarianization, there is now a marked reduction in the unionization of workers and employees. In the United States alone, the size of the unionized workforce has diminished by more than one third. It is also diminishing in Austria, France, Germany, Italy, Switzerland and Britain. Both in the industrialized countries and in the poor nations, the unions have lost strength

and political clout. Today only 17 per cent of the world labour force is unionized. The first Industrial Revolution, with its labour intensity, made a political force of the proletariat. With the present technological revolution, the only remaining political forces are capital and software.

Today the underdeveloped countries' population grows at a rate of nearly 70 million a year and the number of new job-seeking youths each year reaches nearly 38 million. That is, a population equal to that of all the Andean countries combined is born every year, and a population the size of Colombia's is looking for work. Today the underdeveloped world has 700 million unemployed or subemployed workers. What will happen in eighteen years to those who have just been born? What future can they have? The International Labour Office considers that, if the urban population continues to grow at the same pace in those countries, some 40 million new jobs must be created each year over the next decade just to keep up with the number of people looking for work.⁵ How is this mass of world population to be employed, under the new technologies?

It will be very difficult to provide jobs, because nearly all the major transnational investments in the poor countries that use large numbers of workers (of the assembly plant type) were already made in the period 1970–90. Moreover, it is very possible that new technologies will be gradually introduced in these same plants in order to cut costs, with the result that personnel will be further reduced or eliminated. The reason behind this move would be that it would be less costly and politically less risky to produce the same products in automated plants in the industrialized countries. In any case, if the employers wish to modernize their enterprises, and to improve their productivity and the quality of their products in order to become competitive global exporters, they will have no choice but to invest in new plant and more technologically advanced machinery, which will not create sufficient jobs.

New technologies and modern methods of production may possibly, after a painful transition period, reduce unemployment and low-paid employment in the wealthy countries, whose populations are practically static and generally skilled. However, they

can hardly be expected to provide employment for the millions of unskilled men and women launched onto the labour market every year by the urban population explosion in the poor countries. Everything seems to indicate that the technological revolution and the urban population explosion in the underdeveloped countries will enter on a collision course this century.

At the beginning of the twenty-first century, many underdeveloped countries have reached the stage that the specialists call demographic transition, that is, a decline in fertility and a better balance between births and deaths. Nevertheless, the growth of the urban population is still explosive. The cities of the underdeveloped countries grow at a rate of 150,000 inhabitants per day. Lima and other Latin American capitals grow by more than 2.5 per cent yearly, and cities in Asia and Africa reach a rate of 3–4 per cent. It will be enormously difficult to match the employment opportunities offered by the new technologies to this scale of growth.⁶

This means that millions of men and women in the urban areas of underdeveloped countries are entering the global employment market in fierce competition for an ever-smaller number of jobs. Many will lose their jobs, or will find a low-quality job, or will never find work at all. In the underdeveloped world today, being a labourer, an employee or a professional is practically a privilege, and will continue to be so for many long years to come. In the poor mega-cities around the world, thousands of young people are wondering what to do. It is, therefore, not surprising that the answer should be emigration, delinquency or political extremism.

The present structural trend away from the creation of sufficient jobs to meet the demands of the urban population explosion in the underdeveloped countries is operating within a planetary casino, hyper-speculative economy, disconnected from industry and trade and, as a result, from the creation of new jobs. In the course of this century, the combination of both these trends may consolidate a phenomenon made up of economic growth and insufficient job creation. The problem of the world financial casino might be controlled through international cooperation, at least to establish regulations to prevent new global crises like the crash of 2008.

Technological development, however, is irreversible – there is no such thing as disinvention – and the tendency of the present-day technological revolution is to dispense with the abundant labour force emerging from the urban population explosion in the under-developed countries.

Another Darwinian tendency of the market and of the technological revolution is the gradual elimination of national economies by the dematerializing of modern industrial production. The enormous demand for raw materials by China and the speculation on commodities will decline and commodity prices will once again be barely profitable. This is because the new technologies use less and less raw material and fuel for each unit of production. Today new technologies such as computerization determine the exact quantity of metal or fuel needed; moreover, new artificial materials are replacing metals and natural textile fibres. At the same time, biotechnology is creating agricultural goods to compete with natural products.

The wealth of nations has changed in recent decades. Any classical text on international economics would have considered rich those countries with abundant natural resources. Today, the technological revolution is progressively emancipating the industrial economy from natural resources. The modern-day wealth of nations is information, the grey matter to create and innovate products and services so as to save on natural resources. The key for this is software, which has become the new strategic raw material.

The most important dematerialization currently occurring is that of minerals and metals which are being replaced by artificial materials. Among these new materials, designed by software, are plastics covered with very thin metal, thermo-elastic plastics, and new forms of laminated glass, ceramics, polymers and graphite. All of them are in increasing use in the modern aerospace, electronic, chemical, telecommunications, computing, automobile and machine industries. Nowadays metal is replaced by ceramics and plastics in modern automobiles, aeroplanes and trains in order to reduce their weight, and thus use less fuel. A large part of the energy that used to be lost in copper conduction cables is saved today through the use of new materials in semiconductors such as

coaxial cables and optical fibres. Nowadays, 40kg of optical fibres transmit as many telephone messages as a ton of copper used to do. In the laboratories of Los Alamos they are experimenting with a new superconducting tape that can carry 1,200 times as much energy as a copper cable.⁷

The amount of metal and minerals per unit of industrial production today is two fifths of what it was in 1900. In the automobile, this proportion has been reduced by 40 per cent, in household appliances and in medicines by 50 per cent. The raw materials used to make a semiconductor microchip represent only 1 to 3 per cent of the total production cost. The experience of Japan, which used to consume raw materials at a great rate, is illustrative. For each unit of industrial production today, Japan uses 40 per cent less raw materials than in 1973.⁸ In the twenty-first century, this dematerializing trend in metals will have a growing impact on the countries that produce copper, aluminium, steel, tin, zinc, lead and iron.

Textiles are becoming the creatures of chemical technologies. Synthetic fibres are reducing the amount of cotton and wool in each unit of industrial textile production. Today there are already artificial microfibres so light that a kilometre of their thread weighs only one gram. From them, clothing can be made that is extremely light, like a second skin, and that adapts to the atmosphere, maintaining the temperature, heating or cooling, and preventing perspiration. During the Gulf War, these new fibres were tested in uniforms that allowed US soldiers to endure temperatures of 50 degrees centigrade.

The new chemical technologies, along with biotechnology, are also replacing agricultural products such as sugar, rubber, vanilla and palm oil. The market for sweeteners and artificial fats is being developed rapidly by the laboratories of the United States, Europe and Japan, thus reducing the demand for sugar and palm oil. Experiments are also under way to produce a bio-coffee capable of competing with the best-quality coffee in the world, and at lower prices. The new artificial vanilla is threatening thousands of growers in Africa. In the same way, research is being carried out to alter the DNA of flowers and tomatoes so as to make them cold-resistant and thus more suited to growth in the northern

hemisphere. Should this succeed, it would reduce the demand for these products from the underdeveloped world.

The dematerialization of industrial production in the developed countries will cause a decline in the demand for raw materials, lowering their prices to unprofitable levels. In the past, the endowment of certain nation-states of the Third World with abundant natural resources, and the growing demand for raw materials accustomed their governments to live on that income, with no thought for scientific research. Nowadays, as the world economy is engulfed by the technological revolution, the economies based on natural resources will work less and less well. Even the countries that are exporters of petroleum – the only raw material that is strategically vital today – will suffer severe crises due to the depletion of their reserves and the competition of renewable energies. Today, petroleum is the only basic product that still provides a high income. But the petroleum-producing countries, though they have earned abundant capital, missed their historic opportunity to use it to modernize their economies technologically.

The present industrialized countries and the Asian NICs, albeit not endowed with natural resources, have attained higher living standards than those countries sitting on ‘gold mines’ of petroleum, copper, bauxite, sugar or coffee. The only industrialized country that has enjoyed abundant natural resources has been the United States, although it owes its success as a world economic power not to them but to the grey matter it has used in order to invent and to innovate. Switzerland, a country about the size of a small department of Peru, has practically no natural resources, but it has attained great scientific and technological development. This allows it to sell industrial plant, chemical products, optical goods, watches, precision instruments, food products, and sophisticated financial services, which produce infinitely more than all Peru’s natural resources. In the last resort, Switzerland sells grey matter – an intangible, non-material resource contained in the technological innovation of its products and services. For that reason, it is a far more prosperous country than any country of Latin America, Asia or Africa that sells mountains of minerals or of woods, tons of fruits, sugar or coffee or kilometres of natural fibres.

The grey matter incorporated into software will be the most important factor in technological mutation to produce sophisticated goods and services and establish enterprises with comparative advantages for the twenty-first century. In order for a country to be viable, it has become increasingly vital for it to have an economy based on enterprises that are capable of building up the technological content of their production. If not, if they maintain the pattern of primary exports, the new technology that dematerializes production will perform its Darwinian selection function.

The Darwinian process of dematerialization through technology will intensify during the twenty-first century. The demand for manufactures with high technological content and, above all, for services that use little raw material, will grow at more than 15 per cent a year, while the average world demand for primary products will grow by only 2 per cent, and for slightly processed products by just 5 per cent a year. The only commodities that will maintain an acceptable demand in the twenty-first century will be cereals and petroleum, in response to the growing demand for food and energy created by the worldwide urban population explosion. Humanity is today a 'dual' planetary society, divided between a prosperous minority of persons dedicated to dematerialized intellectual activities, inventing modern technologies and new products and services, on the one hand, and, on the other, a majority of poor persons that still live by dint of their physical strength, by routine bureaucratic work, and by tapping their natural resources.

4 | The Search for El Dorado

Thinking the unthinkable

Theorists who cogitate about the wealth of nations and technocrats who specialize in formulating projects to increase production and raise living standards may be mistaken about the design of a development model, but they do not appear to entertain the slightest doubt as to the chances of development itself. For them, to consider the impossibility of development is to think the unthinkable.

Certainty about development has even led them to change the denomination of the ‘poor countries’. Before the appearance of development theories, the poor countries that had not experienced the capitalist industrial revolution were called ‘backward countries’. Then, in the 1950s, when development theories began to be discussed, the term was changed to ‘underdeveloped countries’. Some time later, in the 1960s, the name was again altered, to ‘countries undergoing development’, because this indicated that they were on their way to a high standard of living. However, this seemed to imply some doubt as to their achieving the goal at the end of the road. Thus, the term was again adjusted, to ‘developing countries’. This new denomination aimed to allay any doubt, by indicating that these countries were indeed on the road to material progress and high living standards. They seemed to be species that were being genetically reproduced on the pattern of the industrialized countries, assumed to be their ancestors in the history of material progress. In this way, development was represented as a natural process, like a Darwinian evolutionary certainty – the backward countries were ‘developing’, using the genetic potential of any nation-state to turn itself into a society with high living standards. The myth of development was born.

Development was one of the most persistent myths of the second half of the twentieth century. Theoreticians, experts and politicians

have been convinced that economic and social development is an inborn, one could say inevitable, process for all nation-states. They think that it is only necessary to apply the correct theories and policies and poor countries will begin to create wealth and become societies with high living standards, like those enjoyed today by the two dozen capitalist, industrialized democracies. Over a period of half a century more than 130 countries have attempted to apply various different economic and social ideologies and systems in search of development, as though that were El Dorado, the land of gold. Development, however, has proved to be as elusive as the conquistadors' dream.

The myth of development's origins lie in our Western civilization's ideology of progress. This ideology in turn was born during the Age of Enlightenment, and was fostered by the Industrial Revolution. To an extent never suspected in agrarian societies, the machine age demonstrated a capacity to create sufficient wealth and eliminate, for the first time, great masses of poverty. This ideology of progress was buttressed by the narcissism implicit in Darwin's theory of evolution, which suggested that the human species was the most apt of all the species on the planet, due to its capacity to adapt itself to any natural habitat and always to achieve progress.

Industrial evolutionism engendered the conviction that any society can create science, technology and industry, thereby progressing without limits. Just as the *Australopithecus* progressed to become a tool-wielding man, then to *Homo erectus*, who created fire, and later to *Homo sapiens*, who created language and culture, rural societies can progress from being agricultural producers to industrialized societies. Finally they become postindustrial societies endowed with intensive knowledge and perpetual well-being. The certainty of the nineteenth-century evolutionary industrial prediction was reinforced during the twentieth century by a tide of inventions that gave rise to epistemological optimism. This leads man to believe that all problems can be solved by science and technology. If a problem appears to have no solution, that is a momentary impression, because it is practically certain that the technology to solve it will be invented. Therefore, there

is no doubt about scientific material progress and its relation to human happiness.

In the context of this ideology of happiness based on material progress, already in the eighteenth century Adam Smith described the stages required in order to achieve the wealth of nations. He explained how the societies of hunter-gatherers could evolve towards pastoral and agricultural communities, to finally become manufacturing and trading societies. The thinking of Karl Marx, another great ideologist of human happiness through material progress, followed Smith's evolutionist path. For Marx, humanity's material progress is attained by passing from feudalism to capitalism and from there to communism, thus ending history and spawning perpetual happiness. In this, Marx partially coincided with the neoliberal Francis Fukuyama, who considers that today history has ended with the triumph of global capitalism.

One of the great modern promoters of the myth of development was Walter Rostow, a professor at the Massachusetts Institute of Technology. In 1960, he fascinated all the technocracies with his famous book on the stages of economic growth. According to Rostow, countries evolve from a traditional society, through stages of accumulation and take-off, to reach the final stage of mass consumption, which he says is nothing less than development. The natural environment has no importance in this process. It is just another raw material to consume on the march to progress and happiness. After Rostow, all the technocrats were convinced that they could achieve development. They only needed to know how to apply the correct theories and policies, create value-added, accumulate, take off and indulge in mass consumption. The idea was to reproduce in the shortest possible historical time the development processes of Europe and the United States. Since the 1960s, we have witnessed many 'take-offs', but few cases of national development. Twenty years ago, it was said that Brazil was taking off, that it was one of the future world powers. Then, some years ago, Mexico was in fashion, then India. This was followed by the vogue of the 'emerging countries' of Asia. Today the only take-off in fashion is that of China, a country with 1.3 billion inhabitants,

where only 300 million have a standard of living that would permit them to be consumers in the global economy.

The fact is that in the past forty years only two small countries, South Korea and Taiwan, have managed to progress from agricultural societies to technologically advanced industrialized societies. They have conquered their generalized poverty and raised living standards to create a predominant middle class. However, this was done with democratic, cultural, scientific and social levels far below those of Europe and the United States.

Two other territories, termed by the development gurus newly industrialized countries (NICs), Hong Kong and Singapore, which have also approached the living standards of the developed capitalist democracies, are not nation-states but small city-states. Their development did not confront the enormous problems entailed in raising the living standards of vast territories with an ongoing and unstoppable urban population explosion, as is the case with the majority of underdeveloped countries. Today, when underdevelopment is the characteristic of most of the planet's nation-states, and when environmental deterioration is caused by the progress (mass consumption) of a minority of industrialized countries, the words of Rabindranath Tagore seem particularly apt: 'progress for whom ... progress towards what?'

During the Cold War, the myth of development was expressed basically in two rival models: the Communist and the capitalist. Both were in environmental terms unsustainable. Now that Communism has collapsed because it tried to replace the market with centralized planning of scarcity, a type of global capitalism is emerging that has gone to the extreme of converting the market into a kind of supreme natural law, ethically neutral, like the law of gravity. As such it pays absolutely no attention to social and environmental considerations, and expects everyone to submit passively to this. This model, at present the only one to express the myth of development, attempts through globalization to reproduce modern capitalist societies in the majority of the underdeveloped countries. However, contrary to expectations, the prosperity explosion expected in the wake of capitalism's triumph is not becoming reality. History has not ended. On the contrary, it is

becoming complicated, because what is actually happening is the exclusion of major sectors of the world's population from the global economy.

However, since the myth of development has nearly religious connotations of hope and salvation from poverty, it remains untouched by the experience of the past forty years, which demonstrates so unequivocally the utter lack of development of the majority of countries. The mythical nature of development leads the politicians of poor societies to continue insisting on 'closing the gap' that separates them from the capitalist industrialized societies – closing it by attempting to reproduce consumer patterns that cannot be financed or sustained environmentally.

The myth of development has impregnated our civilization to such an extent as to inspire splendid, headstrong international stances such as the United Nations proclamation of the 'right to development', that is, the right of all underdeveloped countries to have living standards and consumption patterns like those of the industrialized states. The recognition of this right in United Nations declarations bears no relation to its real chances of becoming effective. Besides, its hypothetical achievement at present Western consumption levels would cause an environmental catastrophe on the planet.¹

Outside UN conference rooms and in the real world, there are countries that are simply incapable of 'closing the gap' with the industrialized countries, even with the most unfettered economic policies and the most abundant and cajoling international cooperation. The so-called developing world is rife with countries that have no modern capitalist class, and no scientific and technical personnel capable of using the liberalization of the economy and foreign aid to modernize the economy and make it competitive on a global scale. In these countries, the explosive growth of the urban population is producing very high levels of poverty and unemployment, as well as social, religious and ethnic divisions, accompanied by deficits in food, energy and water, which are the minimum resources required for the existence of an organized society, a nation-state.

To add to this worrisome situation, in the real world, as we saw in Chapter 3, international relations are Darwinian. The global economy increasingly demands products and services with a high technological content, while the underdeveloped economies are still trapped, like inapt species, in barely processed production with no technological innovation. Moreover, the new power of the transnational corporations keeps pushing globalization by opening up markets with environmentally unsustainable consumption patterns, making the poor countries import more. This increases their foreign debt, without helping these countries to modernize and be able to compete in the global economy of the future.

International aid, the daughter of the myth of development, is paradoxically the clearest testimony to non-development. For nearly half a century, the United Nations, industrialized powers, specialized agencies, international financial organizations, non-governmental organizations and humanitarian institutions have tried uncounted policies, strategies, programmes, and development projects, transferring billions of dollars in credits, technical assistance, equipment and donations. Part of this enormous mass of resources has been recycled through tied aid. Another part was lost in the corridors of corruption, and only a modest stream of this torrent of resources has been applied to alleviate poverty.²

The crude reality is that today nobody knows how to reach El Dorado. The rich are getting richer and the poor poorer, in all countries. The combined income of some 300 individual billionaires is equal to the total revenues of 2.7 billion persons who represent 40 per cent of the world's population. The individuals who have the means to consume the products and services of the global economy number only 1.8 billion. The remaining 4 billion-plus are left window-shopping. In nearly a hundred poor countries, real per capita income has not increased in twenty-five years.

If underdeveloped countries are unable to modernize their exports, adding technological content, and if they fail to reduce their birth rates, the extreme poverty that now affects 1.3 billion people will affect nearly 3 billion by 2020. In addition, 2.5 billion will not have adequate housing and 2 billion will have no access to clean water or a commercial energy supply. The overwhelming

majority of these marginal inhabitants will live in more than 550 cities with populations over 1 million and some twenty megalopolises of more than 10 million inhabitants. These cities will be chaotic, polluted, full of unemployed workers and plagued by delinquency. The harbingers of this nightmare are already on view in Lima, São Paulo, Bogotá, Lagos, Cairo, Nairobi, Dhaka or New Delhi.

Even though these trends, which can so easily be confirmed by a tour around the so-called developing world, have been utterly clear since 1990, the World Bank, the IMF and many specialized economic circles continue to predict a rosy future for the 'developing' or 'emerging' world. Possessed by the myth of development, they habitually predict El Dorados, identify miracle countries, future economic powers. Today it is China, and perhaps tomorrow it will be Turkey. They describe precarious economic recoveries without technological modernization, like those of Peru, Argentina or Ghana, as 'miracles'. Then come the debacles, but by that time they are already predicting other national miracles.³

In their analyses, they hint that the growth of China or of the Asian NICs can be copied in other countries, even in Africa. They are convinced that the present globalization process will create world prosperity. They comment and announce take-offs, economic miracles, praise painful refinancing of foreign debts, wax ecstatic over the high growth of the GNP. However, they say precious little about the chaotic world behaviour patterns that are emerging.

The IMF and the World Bank failed to foresee the main financial debacles: the debt crisis in Latin America, Mexico's insolvency, the bankruptcy of the Asian countries, Brazil and Russia, and the collapse of a major part of the global financial system in October 2008. With obsessive optimism, they supported nothing less than a plan to convert the USSR to a market economy in five hundred days! The result has been a cataclysm of social exclusion and the birth of the world's first klepto-market economy. The ideological lack of realism of the experts of the World Bank and the IMF prevents them from seeing even the poverty and delinquency next door to their own offices in Washington, a poverty that has been

caused precisely by a model very similar to the one they are recommending for everyone all over the world. The truth of the matter is that, in order to have some idea of what is going on in the world, one should travel more and spend less time reading the reports of the World Bank and the IMF.⁴

In the streets of Africa, Asia and Latin America, it is easy to confirm that the majority of the population is leaving rural life but is not becoming a broad middle class, conscious of its civic duties and of its democratic rights, as happened in Europe and the United States. Instead, a large part of the population is living in poverty and with rudimentary civic behaviour. In most countries, it is not democratic capitalism, coupled with modernized production, that is arising. Rather, what has emerged is backward, rustic capitalism, in low-intensity, even grotesque democracies, anchored in primary, barely processed production. Moreover, there is no rule of law, institutions are not respected, and even less is civil society.

The gurus of the myth of development, who measure everything, have virtually a quantitative vision of the world. They pay no heed to qualitative historical and cultural processes, to the non-linear progress of society, to the ethical point of view, and they even disregard environmental impacts. They misconstrue economic growth as the development of a capitalist modernity that does not exist in the poor countries. With such a perspective, they only perceive the economic epiphenomena such as GDP growth, export performance or the behaviour of the stock market; they do not notice the profound qualitative cultural, social, environmental and structural dysfunctions that prefigure the non-viability of the underdeveloped quasi nation-states in the new millennium.

In order for these gurus to become aware of that non-viability, they need to take into account the degree of scientific–technological integration that these countries have attained in the global economy. In addition, they must examine the physical and social equilibrium between the growth rate of the urban population, on the one hand, and the future supply of the indispensable physical resources needed for national cohesion and a civilized life, such as food, energy and water, on the other.⁵ Only with this sort of vision

will it be possible to detect the ‘viruses of non-viability’ affecting many of the presently misnamed ‘developing’ countries.

Non-viable national economies (NNEs)

In our time, the nations’ future depends increasingly on knowledge and information, that is to say, on the number of scientists and engineers, on the expenditures on scientific and technological research, and on the production of software. The underdeveloped countries that constitute 75 per cent of humanity (5 billion inhabitants) possess only 7 per cent of the world total of scientists and engineers, spend less than 2 per cent of the total world investment on scientific research and development, and produce only 3 per cent of the software. These estimates of backwardness may seem generous, because in fact half of this laughable arsenal of science and technology is concentrated in a handful of countries, basically Singapore, South Korea, Malaysia, Taiwan, China and India. All the rest live in the most absolute scientific and technological destitution, a situation that will gradually exclude them entirely from the global economy, where the demand continually increases for sophisticated manufactures and services.⁶

After in many cases 190 years of independence, the countries of Latin America should be competing scientifically with Southeast Asia, China and India; however, having invented nothing, it is a scientific wasteland. With the exception of Brazil, no country in the region invests more than 1 per cent of its GDP in research and development. Such a situation is the result of the cultural inclination in Latin America, as in developing countries elsewhere, to value the humanities over the natural sciences, physics, biology, chemistry and mathematics. Letters are preferred to logarithms, deduction to experiments, belief to scientific doubt, and the auditorium to the laboratory.

The resulting *ascientific culture*, which neither invents nor innovates, is trapped in underdevelopment. The production of these countries, with its low technological content, is far less valuable than the modern high-technology products and services that these countries buy. Countries without science have no alternative but to go into debt in their pursuit of modernity.

It is not pleasant to assign a country's underdevelopment to cultural causes, since the country can thus only blame itself for its own underdevelopment. Clearly the explanation is severe, but it is not false. It forces countries to recognize the underlying causes of their poverty. Thus they feel responsible for their destiny and must carry out an educational revolution and invest in research and development, instead of blaming their poverty on the admittedly unjust international economic order.

Without doubt, there are unjust external economic factors that obstruct development; however, they will never be overcome if a country does not revolutionize its education system to become an innovative nation that values science and research. South Korea, Taiwan, Malaysia and Singapore also suffered the onslaughts of the unfair international economic order, but they managed to overcome them by divesting their cultures of their ascientific leanings. This same process can be observed today in China and India, whereas the majority of underdeveloped countries continue to blame their poverty on multiple and diverse internal and external factors rather than their ascientific culture.

The persistence of an ascientific culture in the majority of the misnamed 'developing countries' means that humankind is divided as a dual planetary society. On one hand, it consists of a minority of prosperous countries who live off inventions and innovations; on the other, it has an enormous number of poor countries living off their natural resources and low-technology manufactured products, always forced to import the costly scientific progress that they do not know how to produce.

When the virus of the ascientific culture colludes with another non-viability virus, such as urban demographic explosion, non-development is virtually inevitable. This occurs because the meagre export income that many countries will receive in future from raw materials, agricultural products, and goods with low technological content will in no way be sufficient to create employment and satisfy the needs of the burgeoning urban populations in the underdeveloped cities.

Practically all the countries with low-technological-content exports will have doubled their populations by the year 2020 or

thereabouts. This viral combination of scarcely processed exports and demographic explosion is a leading producer of poverty. Today nearly half the total population of Africa lives in poverty. This is also true of 40 per cent of the inhabitants of the large and populous countries of South Asia, including India, Bangladesh, Pakistan and the Philippines. In Latin America, poverty affects nearly 38 per cent of the population and is especially concentrated in the Central American and some of the Andean countries, such as Ecuador, Peru and Bolivia. If the underdeveloped countries are unable to modernize their exports, adding greater technological content, and if they fail to reduce their birth rates, the poverty that now affects 1.3 billion people will affect nearly 3 billion by the year 2020.

As a result of their inability to obtain resources from the world market for their growing populations, countries do not develop. Instead, they acquire the characteristics of non-viable national economies (NNEs). All the so-called 'developing' countries were forced to survive during nearly the entire twentieth century on international aid, official loans and credits from private institutions, continually falling into insolvency and national bankruptcy. At present, they are surviving by dint of privatizations and with a great deal of volatile capital, generated by speculation in the global financial market.

One of the most illustrative examples of the characteristics of NNEs is the economic history of the greater number of the Latin American countries. During an entire century, the short-lived booms of the region were due principally to two factors: the temporary rise in price of some primary products and the coincidence of these price peaks with a period of abundant foreign capital and credit. This facilitated loans and investments, which later ceased.

In 1920, the spate of liquidity around the world resulting from German war reparations and from the abundance of US capital, produced various 'miracles' in Latin America, which ended in the crash of 1929. The Second World War, the reconstruction of Europe and the war in Korea all helped to raise the prices of primary products and increase the supply of foreign investments in Latin America. This brought a new period of expansion which

ended with crises and new recessions during the late sixties. In the seventies, another wave of liquidity and abundant capital supply from recycled petrodollars kept the economies afloat with loans from private banks. This whirlwind ended in the catastrophic debt crisis and the consequent insolvency of the Latin American economies. At the end of the twentieth century, global deregulation of the financial markets and the emergence of a global capitalist casino again permitted miraculous recoveries, with short-term investments based on speculation and privatizations. Now, as a result of the global financial crisis, the drunken spree with financial liquidity has passed, and the technologically backward economies of most Latin American and other underdeveloped countries will again be depressed under the weight of their unchecked urban expansion.⁷

Non-viability is a fundamental cause of the social disintegration, and eventual collapse, of the underdeveloped nation-states. In the majority of cases, nonetheless, economic non-viability does not necessarily degenerate into a terminal crisis of the nation-state, like a fatal illness in living beings. Non-viable economies can continue to stay alive for decades in a stabilized condition (non-development), undergoing the typical historical alternation of crises and miraculous recoveries, without eliminating the viruses of non-viability or diminishing national poverty to any noticeable extent.

This stabilized stage of non-viability, in which poverty does not decrease significantly nor does the nation-state collapse, is supported by temporary bonanzas that fail to modernize the economy. These bonanzas may be triggered in various ways: by a momentary rise in the price of some primary export product, by new, slightly processed exports (such as those assembled in the country from foreign parts), by drug traffickers' investments, by monies sent home from citizens living abroad, by short-term speculative investments, by privatizations or by financial rescues at the hands of the IMF or the World Bank. These countries may also be refloated by a consortium of industrialized powers who do not want certain nations to suffer a socio-political disintegration that might affect their own national interests.

Within the context of this sort of stabilized economic non-viability, it is possible for the GNP of an underdeveloped country

to register miraculous, albeit short-lived, periods of growth, thus confusing and elating observers, who believe that the country has finally taken off as a newly industrialized country (NIC), that it is becoming a new 'tiger' who will prowl the global market with the best of them. A tourist in a luxury hotel situated in one of the rare high-income ghettos of an underdeveloped country could report having found good restaurants, new automobiles, shopping centres full of foreign consumer products and artefacts. Upon departing, he would be convinced that the country in question is well on the way to development. This illusion is further heightened by some of the national and international press, with a fondness for discovering and highlighting 'miraculous' economic stories.

These cases of economic growth do not represent the sustained development of a modern, competitive capitalist economy, because the technological content of their contribution in the global economy has not improved. They are not the outcome of a critical mass of productive national and transnational investments that create jobs and spur a modernization process. On the contrary, they are most often the offspring of extremely volatile global speculative financial flows that could easily be withdrawn.

Ultimately, when these cycles of stability and precarious growth have ended, the only thing that develops with the passing years in countries that are stabilized in non-viability is the growth in the size of their low-income population. The best way to recognize whether a country shows symptoms of non-viability is not to observe the temporary spates of GNP growth, but to see whether its scientific and technological research is increasing, whether its exports are being modernized, whether personal incomes are rising, and whether national poverty is starting to decrease significantly and steadily, year after year.

During the period stretching from 1960 to 2008, only five countries – South Korea, Hong Kong, Taiwan, Singapore and Malaysia – posted an average per capita yearly income growth of 5 per cent, which enabled them all to eliminate poverty and create a middle class. China's income per capita also grew at a rate of over 5 per cent, even more than the five aforementioned Asiatic countries. However, the poor national distribution of the Chinese income

has still left 800 million persons in poverty. Only 300 million Chinese, concentrated in the great coastal cities, are earning sufficient income to be considered members of a consumption-oriented middle class. Even so, their incomes remain a great deal lower than those of Americans and Europeans.

In contrast, examination of the personal income growth of the remaining 134 'developing countries' for this same period (1960 to 2008) reveals that the average per capita income growth of ninety six of these countries, that is, the great majority, was only 2.6 per cent, woefully insufficient to enable them to emerge from poverty. The other thirty-eight countries barely reached the minimum for overcoming poverty – that is, 3 per cent.

At the beginning of the twenty-first century, the poor growth of per capita incomes had left the underdeveloped countries with nearly 46 per cent of their population in a deplorable state of human development and with their middle classes struggling to avoid slipping into poverty. Only a minute minority enjoys patterns of consumption and living standards similar to those of the industrialized countries. In the countries with non-viable economies, the majority of the population lives in a hell, a small middle class lives in purgatory, and only a handful enjoy the paradise of a consumer economy, with instantaneous gratification.

Today, there are already countries in Africa and Asia that display all the characteristics of NNEs, and are being left on the sidelines of globalization, through the process of selection applied by the market and technology. In this dire situation are to be found the greater part of the countries of sub-Saharan Africa, including Angola, Burkina Faso, Burundi, Central African Republic, Chad, Côte d'Ivoire, the Democratic Republic of Congo, Equatorial Guinea, Ethiopia, Gambia, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mauritania, Mozambique, Niger, Rwanda, Senegal, Sierra Leone, Somalia, Sudan, Tanzania, Togo, Uganda, Zambia and Zimbabwe. In Asia, Afghanistan, Bangladesh, Bhutan, Cambodia, Myanmar (Burma), Nepal and Yemen fall into the same category. In Latin America, the only economy with definite signs of non-viability so far is Haiti.

Of all the above-mentioned African and Asian countries, not one of their economies has a trace of technological modernization in its export products; they hardly receive any productive transnational investment. Almost all are mono-producers or depend on the export of a few primary products with unstable prices. Their population growth rate is an extremely high 3.1 per cent per year. By the year 2025, they will have doubled their total number of inhabitants, while their food production diminishes. Thus the populations have less food security every day. Food imports represent between 25 and 80 per cent of their total imports. They also lack energy security. Compared with the yearly energy consumption in an NIC of 1,000 kilos of petroleum per capita, these countries use only 120 kilos. Due to this lack of access to energy, the population resorts to firewood, thereby causing rapid deforestation, which erodes the soil and reduces food production. These countries' imports of energy average about 22 per cent of their total imports. The same desperate situation applies to their water security. More than 70 per cent of their populations lack drinking water and sanitation. In all these countries, almost 53 per cent of the population live in poverty; therefore, these countries cannot build an economy based on a national market.⁸

Alongside this group of African and Asian countries, there is another group of underdeveloped countries in Latin America, Asia and the Middle East whose economies are incubating similar symptoms of non-viability. This second group includes such countries as Algeria, Bolivia, the Dominican Republic, Ecuador, Egypt, El Salvador, Guatemala, Guyana, Honduras, Jordan, Morocco, Nicaragua, Pakistan, Paraguay, Peru, the Philippines, Sri Lanka, Syria and Tunisia.

These economies have very bad income distributions and export mainly raw materials and manufactured products with very low technological content, for which the demand will not grow appreciably in this century. The prices for these products will be barely profitable, thus failing to provide the resources necessary to overcome the poverty and unemployment resulting from their urban population explosion. Like the African and Asian countries in the first group, these countries do not receive the critical mass

of productive transnational investment that would serve to modernize their exports and give them a start towards a competitive advantage in the global economy.

The countries of this second group are also characterized by a very high yearly growth rate of their urban populations, above 2.5 per cent. All these countries will double their population by 2025. Many of them will have various cities that pass 1 or 2 million inhabitants and, by the same year, some of them will have megalopolises of more than 10 million inhabitants, among them Manila, Lima, Cairo, Dhaka and Karachi.⁹

A majority of these countries are beginning to lose ground in terms of food security; many already depend on international food aid to cover the calorie deficit of their populations. Jordan, Peru, Bolivia, Egypt, Pakistan and all of Central America are in this situation. These countries are also starting to lose their ability to cover their energy requirements. A majority of them will import increasing amounts of petroleum, even though their per capita consumption of energy is extremely modest. Only Ecuador and Algeria still export petroleum and gas, but their future energy security too is under threat because of their high population growth rates. In addition, all these countries are beginning to suffer serious shortages of water as a result of the explosion in their urban populations. While the poverty in these countries is less severe than in the African and Asian countries of the first group, it is still very great because it involves between 30 and 40 per cent of the population. As a consequence, since many of the population are poor, with incomes of less than \$1 a day, these countries cannot create a genuine national market economy.¹⁰

Both the first group and the second group have in common an export structure that is technologically dysfunctional with the global economy. These countries continue to export virtually the same primary agricultural and mineral products that were in vogue in the nineteenth century and the first half of the twentieth. Their archaic integration corresponds to the first capitalist industrial revolution, typically intensive in its use of raw materials and abundant unskilled labour. This type of export structure is now totally out of touch with the trends of the new global capitalist economy.

My description of these two groups of countries of Africa, Asia, Central America, the Andean Region and the Middle East as incubating symptoms of economic non-viability does not mean I judge that the future is necessarily rosy for the underdeveloped countries not included in these two groups. Nor does it mean that their manifest destiny is to be like Taiwan, South Korea or Singapore. For example, Argentina, Chile, Colombia, Costa Rica, Mexico, Uruguay and Venezuela have increased their exports, have reduced their demographic growth rates and have established food, energy and water security. However, the goods these countries export are still principally primary products, or manufactures with far less technological content and fewer global competitive advantages than the exports of South Korea, Malaysia, Singapore, Hong Kong or Taiwan.

Argentina and Venezuela alone may be sure of being more or less integrated into the global economy in the next twenty years, thanks to their positions as important world exporters of petroleum and cereals, two extremely strategic products for the future in view of the world urban population explosion. In contrast, Chile, Colombia, Costa Rica, Mexico and Uruguay are still a long way from becoming NICs, and if they do not undertake a decisive modernization of their exports to give them greater technological content, they also will probably suffer exclusion from the global market in the years to come.

There is no guarantee, either, that such mega-countries as China, India and Brazil will manage to reduce their enormous poverty and raise their paltry human development levels to a standard of living at least near to that of the present-day industrialized countries. While it is true that these countries have very large economies, they also have colossal social and environmental problems. These giants are suffering an urban explosion process with burgeoning consumption patterns that place enormous pressure on the environment and great demands on the supply of vital resources, such as food, energy and water. In these three countries will be found the principal megalopolises of the twenty-first century. Mega-urbanization will transform the economies of China, Brazil and India into gargantuan consumers of energy, food and water. How

will these countries resolve their physical and social imbalances? No one can tell. The only certainty is that it will not be easy.

Non-development

Two hundred years after the emergence of the modern capitalist nation-state, and more than fifty years into the reign of the myth of development, reality shows that the rule is the non-development of at least 144 countries and the exception is four newly industrialized countries – Taiwan, South Korea, Singapore and Hong Kong (China). If we analyse in more detail this historic result, we must admit that during practically an entire half-century only two small nation-states – South Korea and Taiwan – and two city-states – Singapore and Hong Kong (China) – have been able to develop into modern capitalist countries. In total the four represent a mere 2 per cent of the population of the misnamed ‘developing world’.

These are the only states that could be said to have undergone a process similar to that experienced 150 years ago by the present-day capitalist industrialized powers. That is, they have achieved a productive technological transformation and a sizeable conversion of the poor into middle-class citizens. Nevertheless, these NICs still do not enjoy the high incomes or the scientific and cultural development, much less the democratic institutions and civil society, characteristic of Europe or the United States.

Because the world strategic context has changed, it would be impossible to reproduce the emergence of this small archipelago of four almost-developed capitalist economies in the vast ocean of world underdevelopment made up of the poor, low-income populations of Africa, Asia and Latin America. During the 1970s, the Cold War meant war in Asia. The threat of Sino-Soviet expansion was tangible in Vietnam. The United States and Japan were obliged to reinforce the economies of Taiwan, South Korea, Singapore and Hong Kong as bastions to contain Communism and to avoid a domino effect in case Southeast Asia was lost. For that reason, they flooded them with abundant international investment and credits and allowed them something that is today considered taboo: to create state-supported capitalism, protecting and orienting private enterprises towards exports. These four countries also

received large investments from Japan, a country that, under the protection of the United States, was spared the heavy costs of an arms race.

Today the situation is radically different. The end of the Cold War and of the Communist threat for many countries also put an end to their strategic opportunities for attracting capital investment. Instead, an ultra-liberal form of global capitalism bars the state from a managerial role in support of comparative advantages for national capitalism. On the other hand, the real prices of manufactured goods with low technological content, such as those that the Southeast Asian NICs were exporting initially, have deteriorated compared to their prices in the 1960s. This means that it is no longer possible to be competitive with such manufactures, as the Asian NICs were in the 1970s.

Besides, it is highly unlikely that the countries of Latin America, Asia and Africa will receive a tidal wave of foreign capital for investment in productive export activities, as did the Asian NICs forty years ago. In today's world financial market, very little capital is available for productive, job-creating investment, and most of that goes to China, India and the industrialized countries themselves. The same foreign investment that was used to create factories and a huge exporting platform in Asia some decades ago has now become so speculative that it even drove into bankruptcy Wall Street and the principal banks and financial institutions of the United States and Europe.

Despite all, the conviction remains, among many leaders of the G7 and among the international technocrats of the IMF, the World Bank and the WTO, that a modern capitalist process can emerge in the backward and poor countries by merely liberalizing and privatizing their non-viable economies. Peru, Egypt, Morocco, Algeria, Thailand, the Philippines, Indonesia, Kenya, Nigeria or Pakistan may indeed liberalize, deregulate and privatize their economies, but this alone, without technological modernization of their exports and without solid democratic institutions, will never suffice to create a genuine economy and a modern capitalist democracy. It is tantamount to buying a computer without the necessary software. With governments that are elected but are not

democratic, that do not accept supervision by the judiciary and by an autonomous parliament, the result will be a rustic, even brutal, capitalism, devoid of democracy, fuelled by speculative capital, plagued by political favours and klepto-capitalists. The GNP may grow, but national prosperity will not.

The only way to protect the poor countries from becoming economically non-viable would be to modernize rapidly their production and to enable them to start to export manufactures and services with increasing amounts of technological content. They have to free themselves from the trap embodied in the exclusive export of minerals, agricultural products, woods, hides, beverages and textiles, and they have to trade in other, more sophisticated products, such as electronic equipment, semiconductors, biotechnology, pharmaceuticals, petrochemicals and, above all, software and parts for the transnational telecommunications, transport and aerospace industries. They need to invest, as well, in more competitive national services, modern infrastructure and, particularly, in scientific and technological research and development.

This modernization cannot be brought about with the woefully insufficient national capital and the nonexistent domestic scientific-technological resources that these countries possess. Experts estimate that this modernization would require a critical mass of transnational investments and technologies of at least US\$300 billion per year.¹¹ As noted above, the chances of receiving this critical mass of direct investment from transnational corporations to modernize the backward economies are virtually nonexistent. But even in the hypothetical case that this critical mass of transnational investment were to be directed to the underdeveloped countries, and were to begin the longed-for modernization, the new industrial processes would have to use labour-saving modern technologies. They would be unable to create employment for the nearly 30 million unskilled workers who are seeking jobs in the large cities of Africa, Asia and Latin America.

In fact, if the poor countries did industrialize and reproduced the production and consumption patterns of the present growth model, the environmental cost would be disastrous. Lands, rivers, seas and lakes would be heavily polluted and the gases emitted

would further affect the climate of the entire planet. An example of such environmental damage is provided by the Asian and Pacific countries that received the bulk of the few productive investments in the underdeveloped world between 1970 and 1990. In the year 2020, these countries alone will produce more than one third of the world's emissions of gases into the atmosphere. What would happen if all the poor countries were to adopt the export model?

In fact, however, this could hardly happen. The famous El Dorado of development by means of an export-based economy has inescapable limits. Such models only succeed when the number of world players is limited, as was the case for South Korea, Taiwan or China. In contrast, if the entire world, including mega-countries such as India, China and Brazil, are eager to play the game of becoming exporting tigers, no one wins. How could each country in the world increase its annual exports by nearly 20 per cent when the world economy, in the best of cases, will grow between 1 or 3 per cent a year?

In the twenty-first century, there will be frequent cases of states that collapse into deep economic crisis, and then recover to become stabilized in a state of non-development. Their alternative may be to implode into violence, as has already happened in parts of Latin America, Africa and Asia.

5 | Human and Natural Depredation

Treatment as a different species

During the entire second half of the twentieth century, we grew accustomed to hearing that development could be achieved, violence would cease, and history would be ended, all by changing our economic and social systems or structures. As we begin the third millennium of the common era, we must emphatically deny the truth of such beliefs. If the systems and structures continue to produce poverty and violence, it is because they are a reflection of the predatory nature of our own species. The history of *homo sapiens*, studied without narcissism, leads to the inevitable conclusion that, ultimately, man is still a predator of his own species. This tendency has been constant, in greater or lesser degree, for the past ten thousand years of civilization. Such depredation has occurred under all sorts of socio-political systems, from slavery, feudalism, absolutism, colonialism, and Nazi-fascist and communist totalitarianisms even to capitalist democracy. What is more, all cultures and civilizations have rationalized and glorified the maximum exponent of human depredation: war. This predatory activity has been considered a legitimate means of bringing to fruition the ambitions of the tribe, the clan or the nation-state. Depredation among humans has been and still is a historical constant, one that has not yet been tamed by any great ethical or religious current.

Depredation as a constant in human history is rooted in an innate tendency of *homo sapiens* to consider his own group (family, tribe, clan, ethnic group, nation, religion or culture) different and superior to other human groups, thereby dividing the human species between *them* and *us*. Doing this means that we do not share our humanity with other human beings who belong to different ethnic groups, creeds or cultures, and we go so far as to treat them as a different species, thus engendering the concept of 'the enemy'. This predatory rationalization is called by the German

ethologist Irenaus Eibl-Eibesfeldt pseudo-speciation.¹ Humans have an instinctive tendency to pseudo-speciate other humans, treating them as though they were a different species.

Examples of the abasement of humanity are common throughout the history of man, and they continue to occur today, in the form of social exclusion, frequent violations of human rights, terrorism, or the civil wars of extermination and genocide that occur in different regions of the world. Today, human groups that feel different and superior because they dominate new technologies treat as virtually another species those groups who are less advanced. Conversely, human groups with traditional cultures who feel offended by so much modernity consider the more technologically advanced groups as a satanic product to be violently opposed. From the tribe to the modern nation, humans continue to mistrust other humans with whom they feel no affinity.

Starting with the Enlightenment, Western rationalism maintained that this instinctive predatory tendency of man could be controlled by constructing societies based on justice. From that time onwards, the quest for happiness in the West would become the art of organizing just societies. The first attempt was the French Revolution, which gave birth to the modern concepts of revolution and of political and social engineering. The last of these would later inspire the Bolshevik totalitarian revolution and many other national revolutions, as well as the organization of the modern nation-states, running the gamut from liberal to totalitarian regimes. Paradoxically, as soon as the ideas of revolution and political and social engineering were born, the human predatory tendency that they were meant to control became even more vicious. This was due to the fact that the political and social engineers themselves saw each other as mortal enemies, since they espoused rival projects for happiness.

For the above reasons, our Western civilization – the most technologically advanced of them all and the cradle of human rights, democracy and the idea of progress – has practised human depredation to a degree unequalled by any other civilization. In the name of a just society, two world wars were unleashed in the West, wherein the scientific and industrial power of the countries

involved was transformed into an infernal machine wreaking annihilation. The First World War mobilized 65 million soldiers, 9 million of whom perished under a hurricane of iron and shrapnel produced by the modernization of the firearms inherited from the turn of the century. The Second World War, with 92 million combatants, produced 50 million victims, both military and civilian. This was the overall result of massive aerial bombings, automatic weapons, gas chambers and two atomic bombs. The machinery for total destruction was thus improved, making cities and civilian populations also the target of the substantial progress in lethal technology. In all, treatment as a different species, cloaked in just causes and patriotic fervour, wiped out 150 million people during the first half of the twentieth century.²

In the second half of the century, treatment as a different species emerged as a strengthened ideology. In addition to the promotion of patriotic duty to defend the national interest against the enemy, crusades were launched to bring about the triumph of either the capitalist or the Communist ideology, these being the outstanding exponents of projects to establish a just society and to reach material prosperity. A series of low-intensity conflicts broke out, controlled by the United States and by the USSR as representatives of these rival projects for happiness. These did not spread into world conflagrations, for fear of nuclear retaliation that would mutually destroy the two superpowers and possibly extinguish a great part of life on the planet. Consequently, the treatment as a different species that had triggered two world wars was brought under control, for the first time in the history of the world, not by justice or by ethical considerations, but by 6,000 nuclear missiles, each one a hundred times more powerful than the bombs dropped on Hiroshima and Nagasaki. The fear of nuclear arms raised for the first time the spectre of the extinction of the species and made us see ourselves as one single human race. For the first time in hundreds of years, this fear prevented our recourse to war as a means of imposing just societies and national interests.

The ideological war between capitalism and Communism during the second half of the twentieth century was not a conflict between totally different ideologies. It was, rather, a civil war between two

extreme viewpoints of the same Western ideology: the search for happiness through the material progress disseminated by the Industrial Revolution. Both capitalism and Communism are products of the Industrial Revolution's manufactures. The first represents the individualistic and democratic approach based on the market and inspired by Anglo-Saxon thinking, the second embodies the collectivist and authoritarian approach stemming from German political philosophy: they are two predatory interpretations of the same ideology of material progress. Each of them treated the other side as a different species, thereby denying their common humanity. Surrounded by nuclear missiles and bloated with propaganda and misinformation on an unprecedented scale, capitalism and Communism accused each other of being inhuman systems, while presenting themselves as champions of a higher, more ethical world order, one that definitely excluded human depredation.

There is no doubt that totalitarian Communism was by far the more dehumanized of the two, because it did not even recognize the freedom of the individual to question its ideological project for happiness. Real socialism never admitted that civil society and the law might stand above the interests of the Communist Party hierarchy. Nothing shows more clearly the greater degree of inhumanity in Communism than the imperialist wars waged by both sides before the end of the Cold War. In the case of Afghanistan, despite the fact that the majority of the Soviet people opposed the war, they never dared to express their disagreement for fear of repression and in any case were unable to do so because of the total suppression of public opinion in the USSR. A similar situation never existed in the capitalist democracies, where strong currents of public opinion criticized the United States' intervention in Vietnam, eventually forcing the US to withdraw.

The Soviet disinformation published during the ideological civil war kept the developed capitalist societies paralysed with fright during nearly forty years, leading them to believe that Communism was as efficient as capitalism in achieving material well-being. This Soviet propaganda mitigated capitalism's predatory attitude in several ways. It forced the capitalist democracies to grant independence to the colonial peoples of Asia and Africa,

to establish international development aid, and also to introduce social reforms that humanized the capitalist democracies. In the long run, Communism's totalitarian depredation began to produce its own technological backwardness and an enormous scarcity of material goods, finally convincing its own leaders that the system was non-viable. Thus, to the astonishment of the capitalist democracies, the collectivist side of the Western ideology of progress collapsed, ironically, due to its inability to produce that same progress.

The triumph of the capitalist side of the ideology of progress has not, by any stretch of the imagination, meant that we are entering upon a new ethical order and have overcome depredation. On the contrary, we are today facing world hegemony in its most predatory, most individualistic version. This brutal version of capitalism pursues happiness as never before, to be achieved by the highest degree of material accumulation. It spreads environmentally unsustainable patterns of consumption, and uses the market and technology to plunder persons, enterprises and nations. Now that the fear of Communism has faded, the only interest lies in higher profits, quick and easy money, with no thought for the environmental and social costs.

Stands in favour of democracy, freedom and human rights, which are the most valuable aspects of the capitalist version of the Western ideology of progress, would seem to have been merely an anti-Communist tactic. In the post-Cold War era, all too many examples can be found of a global capitalism that gives up its defence of democracy, freedom and human rights. As examples could be mentioned the general indifference in the face of the genocides in Africa, the benevolence to the ayatollahs that liquidated many of their opponents who had found asylum in Europe, the unholy alliance between the West and the oppressive sheikhs of the Gulf and the tolerance of the corrupt and authoritarian, low-intensity democracies of Africa, Asia, Latin America, the Balkans and Russia.

Not only do Western capitalist democracies abdicate the defence of democracy, they also join Communism to depredate humanity. A stark example of this convergence is 'Chinese-style socialism'.

This model combines the gulag with the most brutal capitalist exploitation of the workers. Still, the model is tolerated and even praised by Western governments and investors, who are greedy for the 300 million consumers that the Chinese market can provide.

Present-day economic globalization is promoting a primary type of capitalism, more interested in selling pop music, Coca-Cola or McDonald's than in promoting democracy and genuinely spreading democratic institutions, civil society and human rights. In other words, it is abandoning precisely the values that gave capitalism the strength to defeat Communism. In Latin America, in Russia, in Asia or Africa, markets have been liberalized and economies have in large part been privatized. However, this alone, without democratic institutions, civil society and social solidarity, will never create genuine modern capitalist democracies. The only things that are really being created are more imports to which the bulk of the population has no access, new social inequalities, new monopolies and many klepto-capitalists.

The political rights of individuals, democratic institutions, and social rights – the essence of Western civilization – are at present being subordinated to the liberalization and deregulation of the market. In its most predatory version, capitalism's triumph is an obstacle to the rise of a new planetary ethic and of a global society with less social exclusion and more environmental protection. The economy is being globalized, but ethics is not. Today the fashion is the quick profit, instantaneous material gratification and the obsession to participate in the material consumption banquet, at any price and no matter how. These are the components of a Darwinian, competitive and predatory behaviour. All science, technology and economic theory are at the service of this frenzy for quick profits and material gratification that is devouring social rights, as well as the environment.

Communism's fall has allowed the most extreme version of the material progress ideology to be spread to all corners of the earth. This version is a far cry from the successful capitalist models of reconstruction and cooperation that were applied by Britain, France, Japan and Germany during the Cold War. The current economic and financial globalization model is a predatory process,

making the rich dangerously richer and the poor poorer. It also dismantles the social progress that capitalism had attained during the twentieth century, subjects the development of democracy to economic interests, destroys national capitalism, and creates precious few jobs.

Economic and social depredation is commonly rationalized as a process of natural selection that throws us into competition and into a fight for our own survival and that of our business in the market, heedless to ethical and social and environmental parameters. The humanist Sir Julian Huxley, who defended Darwin's theses at Oxford, used to say that we cannot learn moral lessons from nature, because nature is totally 'amoral'. In one of his debates, he stated: if we take nature before the court of ethics, it will be condemned, since it is morally indifferent. Therefore, the progress and peace of human society depend precisely on not imitating, in human relations, the Darwinian laws of natural selection. As an antidote, Huxley proposed that instead of violent imposition and competitive destruction, we should exercise the principles of self-control and benefit from the help of our fellow men. For this humanist, our ethical concern should be directed not towards the survival of the fittest, but towards making fit the greatest number possible, so that they may survive.³

Today, man as an economic and environmental predator is irresponsibly gaining legitimacy. The dominant economic ideology considers that the sum of this depredation is the source of society's material prosperity. This line of argument is the weak point in the ethical, political and environmental veneer of legitimacy that masks this highly predatory new version of post-Cold War capitalism. It forgets that the genetic base of the human species obliges man to be an ethical and social animal or to suffer the revenge of his fellow men who have been the object of depredation.

Promoting the instinctive predatory tendency of man is a dangerous philosophical and political adventure that will lead, in the end, to more violence. The social exclusion of human beings is not the same thing as the natural depredation occurring in a food chain, where one animal species preys on another species, as is the case with lions and zebras. The human groups that are preyed

upon are not from a different species, and do not always behave like zebras. A human group that feels permanently excluded from the bare necessities of existence, preyed on by the market and by modernity, will finally turn upon its predators, resorting to varied forms of action ranging from delinquency to terrorist fanaticism.

The law of the jungle cannot continue to be applied among men without serious consequences for the whole community. Our genes, which are programmed for survival in society, begin to protest that we are being excluded, that our family or social group is in danger. Then, when we reach that stage, we too dehumanize our predators, resorting to irrational and violent actions against them, as though they were a different species. When certain limits of human depredation are passed, everyone is the loser, including the predators, and the result is massive social and political turmoil.

The present globalization model's predatory logic, which justifies financial speculation above job-creating investment, which dismantles social achievements and which, in addition, uses labour-saving technologies, is dangerously increasing social exclusion in many underdeveloped countries that are suffering, as well, an explosive growth in their urban populations. In recent years, television has shown innumerable scenes of national depredation, civil wars, drug-financed guerrillas, terrorism and extreme delinquency. We are even witnessing the way in which quasi nation-states of the underdeveloped world, instead of developing, have been imploding into violence as ungovernable entities, converting themselves into a kind of aborted Leviathan, engulfed in infernal struggles, and infected by an emotional plague of pseudo-speciation, in which rival groups deny each other's humanity.

Ungovernable chaotic entities (UCEs)

During the Cold War, it was considered unquestionable that the civil conflicts and the domestic violence of the underdeveloped countries were stimulated and even created by the imperialist policies of the two rival superpowers. Any domestic disorder was thus suspected of ideological impregnation. The regions of Asia, Africa and Latin America were seen as gameboards where the struggle for world power between capitalism and Communism was being played out.

Today the Cold War has stopped, but the armed battles and acts of terrorism in the underdeveloped world have not only continued but multiplied. A wave of armed conflicts has spread over all the continents. Since the Berlin Wall fell in 1989, some twenty-four internal conflicts have emerged (or re-emerged), involving over fifty armed groups. The countries affected include the former Yugoslavia, Afghanistan, Algeria, Burundi, Cambodia, Colombia, Côte d'Ivoire, Democratic Republic of Congo, El Salvador, East Timor, Guatemala, Haiti, India, Iraq, Kosovo, Liberia, Mexico, Pakistan, Peru, the Philippines, Rwanda, Sierra Leone, Somalia and Sudan.

None of these domestic armed conflicts is related to any world ideological struggle. On the contrary, many of the new warriors of the underdeveloped world are predatory creatures set off by the demographic explosion, unemployment and ethnic, religious and social resentments. All of the above conflicts have been exacerbated by the worsening non-viability of their countries' economies in the face of a new global economy. Social exclusion brings out social, ethnic, religious or cultural resentments, causing battles to erupt that destroy what little there was of state or nation. This violence has produced 100,000 refugees in Latin America, 7.5 million in Africa, 6 million in Asia and around 4 million in Europe. By the beginning of the twenty-first century, more than 17 million men, women and children had been victims of the outbreak of this worldwide predatory plague.⁴

The domestic armed conflicts in the quasi nation-states are veritable *conflicts of national self-depredation*, wherein all respect for the most elementary principles of humanity is lost. There, civil war is combined with massive criminality. Such predatory struggles neither liberate nor dignify any people. They only cause massive physical suffering, emotional damage and genocide.

Some countries that have suffered conflicts of national self-depredation have needed humanitarian interventions from the United Nations or from regional organizations in order to reconstruct civilized life or to relieve human disasters that created thousands of refugees and displaced persons. Such were the cases, for example, of the Democratic Republic of Congo, Sudan and Haiti.

Other countries that have suffered, or still suffer, rebellion, armed conflict and terrorism, for example Sri Lanka, Algeria and Peru, have managed to control the situation without international intervention. However, there is no guarantee that their national self-depredation will totally disappear. In many of these countries, like Mexico, violence has become a characteristic of national life, in which the growing criminality, drug trafficking and terrorist armed violence combine into a sinister reality.

In countries where violence has erupted, such as Algeria, Burundi, Colombia, the Democratic Republic of Congo, El Salvador, Haiti, India, Liberia, Mexico, Nicaragua, Pakistan, Peru, the Philippines, Rwanda, Sierra Leone, Somalia and Sri Lanka, the symptoms of economic non-viability had worsened during the 1970s and 1980s. In their economies, based on slightly processed, low-priced exports, the populations grew at explosive rates. Food production and per capita consumption of energy and water lagged far behind population growth. In this manner, the imbalance between population and the physical resources that are vital for social cohesion grew apace. Food insecurity increased. These countries increased their food imports and became dependent on food aid. At the same time, the lack of energy security became critical. Some countries lost their self-sufficiency in petroleum, while others raised their imports of that strategic fuel. All of this produced very low growth – or no growth at all – in real incomes per capita in the period preceding the outbreak of violence.

For example, during the twenty-five years prior to its civil war, El Salvador registered, on average, zero growth in per capita income, while the population increased at 2.5 per cent per year. Haiti and Somalia for thirty years both registered an average decrease of 1 per cent in per capita income, with an annual population growth of 2 per cent and 3 per cent respectively. In the course of the twenty-four years preceding the great increase in the terrorist violence of Shining Path and the Tupac Amaru Revolutionary Movement (MRTA), Peru had an average yearly income-per-capita growth rate of 0.1 per cent, with a yearly population increase of more than 2.3 per cent. Nicaragua registered an average yearly

decrease of 1.3 per cent in per capita income during the twenty years prior to the outbreak of civil war.

In all the countries that today suffer some degree of armed violence, the average per capita income for more than thirty years (1960–90) grew by less than 3 per cent, which is the minimum growth needed in order to escape from poverty. In Algeria over three decades, the average growth rate of per capita income was 0.5 per cent; in the Democratic Republic of Congo 0.2 per cent; in Sierra Leone 1 per cent; in Sudan 0.1 per cent; in Mexico 1.8 per cent; in Colombia 2 per cent; in Peru 0.2 per cent. The same tiny income growth rates happened in Liberia, Rwanda, Burundi, India, the Philippines, Sri Lanka and many other countries. The violence was due not only to these low income-per-capita growth rates, but also to the combination of these with an unjust distribution of the national income which created enormous social exclusion.

The armed struggles caused by social exclusion can settle into situations of intermittent violence, with repeated armed truces followed by new outbreaks of fighting, in which the warlords divide up or share the monopoly of violence that was formerly the exclusive prerogative of the state. When this occurs, the country has become an ungovernable chaotic entity (UCE).

The UCE is characterized by a collapse of state control over the territory and the population. It is a violent entity where public order no longer prevails either in the cities or in the rural areas. The entire country rebels against central power. Regions, provinces, cities, all lack a representative government and are controlled alternately by military chiefs, warlords and drug traffickers, even thieves, or by an assortment of these. The political process evaporates, legality disappears, representative institutions are replaced by armed forces, or armed rebel groups and drug-trafficking mafias. In some UCEs the civilian populations have become citizens of the International Red Cross, Caritas, Médecins Sans Frontières (MSF), hundreds of NGOs, and the intensive humanitarian care of the United Nations.

At this moment, the ranks of the UCEs include Afghanistan, Colombia, the Democratic Republic of Congo, Haiti, Iraq, Pakistan, Somalia and Sudan. The proliferation of UCEs since 1990 is

global reality's most definitive confirmation of the myth of development. At this moment in history, countries not only do not become newly industrialized, they disintegrate instead.

If the current situation of social exclusion in much of Africa, Latin America and Asia remains unchanged and if the urban population explosion continues, the moment will come in many more states when the people's inability to satisfy their vital needs will shred asunder the fragile social fabric, fostering the outbreak of more UCEs.

Peace enforcement and intensive care

The international community lacks effective mechanisms for dealing with the implosion of the poor countries into UCEs. The ineffectiveness of the United Nations Security Council and of its blue-helmeted troops has been accepted as an inescapable fact. The United Nations was designed in 1945 to deal with international conflicts between states. It was not given the means to pacify the contemporary domestic anarchy that began to proliferate in the world.

The ineffectiveness of the organization is a consequence of the lukewarm political commitment of the great powers, sending out peace missions that did not achieve peace. In civil conflicts, the blue helmets did not intervene to impose a ceasefire and disarm rival bands. They only attempted to guarantee that international humanitarian aid would reach the civilian populations that were victims of the conflict. Paradoxically, they delivered the aid, but did nothing to protect the victims. At the same time as they were distributing food, medicine and shelter, they were witnessing killings without doing anything to stop them. The fiascos of Somalia, Bosnia, Rwanda, the Democratic Republic of Congo and Darfur are the clearest examples of this surrealistic combination of humanitarian aid and genocide.

The lack of political will, on the part of the great powers, to become militarily involved in the protection of the human rights that they are so wont to preach has its roots in the consumerist nature of their own societies based on material gratification. Their citizens are unwilling to sacrifice resources and lives for

causes that are not related to their immediate prosperity. Now that Cold War tensions have abated, no one in the Western developed countries wants to see their soldiers die in 'barbarian lands' in wars they do not understand. The democratic governments of the great powers have an obsessive fear of sending armed contingents, of suffering casualties, and of the consequent electoral reprisals. When considering an intervention, most of their military high commands first calculate the possibility of doing so with zero, or nearly zero, casualties. If the casualty estimate is higher than that, they simply do not take part. That is the main reason for their refusal to constitute a permanent peacekeeping force under the United Nations. Every time domestic mayhem breaks out, the debate about intervening or not is reopened in the Security Council. In most instances, the Security Council abandons the country to its fate, granting only humanitarian aid to ease its collective conscience.

One of the few possibilities of establishing a permanent United Nations force for peacekeeping operations, while dispelling the obsessive fear of the great powers that their armed forces might suffer casualties, would be to recruit a mercenary force financed by the United Nations, placing it at the service of the organization as a sort of blue-helmeted Foreign Legion.

The legion at the United Nations's service would be a corps of professional soldiers, recruited and contracted in all the countries of the world. They would have the most modern military technology and combat techniques. They would also count on the powerful logistic, naval and air support of the great powers. Their high command would be subject to the authority of the Security Council and they would be based at strategic points of the globe, with rapid deployment units to defuse conflicts, extinguish domestic fighting, and take as prisoners those who commit crimes against humanity, in order to send them to the International Criminal Court.

The idea of serving in the mercenary forces of the United Nations must be separated from the memory of racist mercenary groups that have fought in recent times against the independence of African countries. Rather, this mercenary force must be associated with the need to have a professional military force at

the service of just international causes, such as defending human rights and impeding crimes against humanity. A review of world military history would reveal that mercenaries have been used by many countries to defend causes that they considered just. Professional Swiss regiments have served the kings of France, Napoleon and the Pope, with honour and efficiency.⁵ France and Britain have entire regiments of foreign mercenaries, such as the Foreign Legion and the Gurkha regiments. The Latin American wars of independence were also fought with some participation of British sailors and mercenary regiments.

Today, countries with great military traditions, such as Britain, the United States and France, have totally professional armed forces. They could be said to be mercenaries with a single national origin, who offer their services for a salary and for a military career. Furthermore, the situation is changing so radically that now it is the African governments that are hiring mercenaries to establish order in their chaotic and violent societies. In South Africa, a transnational corporation called Executive Outcomes is providing security with professional armed brigades to many African states. It is paid in natural resources or in hard currency. Its members are not adventurers, but disciplined and efficient professionals, who are very careful not to violate human rights.

In the United States, an organization called Military Professional Resources Inc. (MPRI) has been founded, staffed by more than 2,000 retired US generals and military specialists, whose services may be requested by any country in the world. The largest mercenary military enterprise in the world, specialized in military consultancy and training, this company advised and trained the Croatian and Bosnian armies against the Serbs. It would not be surprising if the United States, in the course of this new century, were to resort to private companies and mercenary units, in order to intervene militarily while avoiding national casualties that would upset public opinion.

There is no reason for the United Nations to exclude itself from this growth in the offering of professional military services. The 'blue mercenaries' formula could dispel the great powers' fears of incurring casualties and, in addition, provide a sword with which

the UN could pacify domestic infernos in a timely fashion. However, it is most probable that the organization will not be strengthened with a military branch but will continue to deteriorate, as an international organization that has not adjusted to the mission of pacifying domestic wars of national self-depredation.

Indeed, in the high circles of the great powers there is every day less political will and enthusiasm for strengthening the United Nations. The leaders and the citizens of the prosperous Northern societies have exhausted their compassion for so much misfortune and killing in the underdeveloped world. They have become accustomed to seeing poverty, violence and genocide every night on television.

Faced with the absence of a permanent force at the service of international peacekeeping, as well as with the existence of deficient government forces in many poor countries, it is likely that the transnationals will begin to offer private military services and, in the future, hire mercenary military units themselves for the protection of their installations and personnel. Thus, the transnationals would recruit private battalions of *universal soldiers*, trained with state-of-the-art technology, who would provide military services to countries and protect the transnationals' own interests around the world. Today due to the bankruptcy of government power in many poor countries, this trend to privatize military force has already taken hold. Many African governments have contracted transnational services for public safety and for advice on internal security.

Given that it is practically certain that the United Nations will not be strengthened and provided with the military capacity to quell domestic conflicts, the only way to compensate for this shortcoming would be to establish a preventive system of intensive economic care for poor countries showing symptoms of non-viability in their economies and threatened with the disintegration of their social fabric and with the outbreak of a war of national self-depredation.

This intensive economic care should aim to cancel a large part of the threatened country's foreign debt, offer new credits, massively increase family planning assistance, increase food and energy production and the water supply, and implement measures to avoid

social disintegration. Equally important, this intensive care should also design a strategy for modernizing the national enterprises, providing greater technological input for production and exports. These measures would aim to help the economy to become economically viable. Such modernization cannot be achieved through twentieth-century international cooperation methods, including international aid and the adjustment programmes of the IMF and World Bank. The most efficient manner of solving the modernization problem of many non-viable economies would be to grant participation in such an enterprise to the transnational corporations and their vastly experienced managers.

Of course, the transnational corporations' participation in modernizing these economies would have to be approached as a business proposition rather than as an international aid operation. Otherwise, these enterprises would not agree to take part. The most difficult aspect would be to find formulas that would attract their collaboration. They could, for example, participate through a consulting firm to identify which companies with potential global competitive advantages could be encouraged in a given country. Another formula could assign to a transnational consortium the task of developing a programme for modernizing one given industry, in exchange for part of the returns when the enterprise began to turn a profit. Still another possibility would be to give such a consortium a percentage for the efficient management of one services sector. It might also be agreed to pay the consortium a percentage of the new exports that are created under its supervision. There are many formulas that might be tried, while always keeping in mind the requirement that the economy should begin to modernize and that income levels and the employment rate should show a substantial improvement.

The transnational corporations have not yet envisaged this matter as a future business possibility, and perhaps they will take some time to realize its potential, since they are still enjoying the best possible circumstances, with a worldwide free market devoid of any global responsibility. The majority of transnational corporations see very clearly that world power today has an economic and a technological dimension that favours their businesses without

obliging them to bear any international economic, social, or environmental responsibilities. Moreover, in view of the present process of global liberalization, many transnationals believe that they will have sufficient markets in the future. In China and India alone there are nearly 500 million potential consumers, that is to say, a market almost like those of the United States and Europe combined. A scarcity of global markets in the short run thus does not seem to worry the transnationals.

Nevertheless, if social exclusion and unemployment continue to beset the world during the second decade of this century, only 2 billion of the 7.6 billion inhabitants of the planet in 2020 will have a high enough income to be consumers of the global economy.⁶ Their clientele will then be only a small global class made up of a major sector of the population of the northern hemisphere in addition to the small social groups that have high incomes in the poor countries. Perhaps then, faced with this market limitation, capitalism's ability to adapt will lead many transnational executives to realize that the quest for profits is not incompatible with participation through business in international intensive care projects aimed at modernizing the non-viable economies and creating global clients.

For the time being, the transnational enterprises are only interested in the clients with the most money and do not seem concerned about the vast majorities with low incomes. Today nobody knows with any certainty whether or not a long-term relationship exists between the low incomes of the vast majority of the world population and the expansion of the market for the transnational corporations. It may become necessary to investigate this matter, because it might help to know whether some day transnational corporations will take an interest in world poverty or not.

Most transnational executive officers, like the bulk of the great powers' political leaders, as well as many technocrats of the IMF and the World Bank, do not feel threatened by the poverty, socio-political turbulence and environmental disasters that are occurring around the world. Rather, they are firmly persuaded that the global economy will recover and worldwide prosperity will be achieved.

Given such a simplistic world vision, it is currently impossible to establish any system of preventive intensive care to provide timely assistance to non-viable economies threatened with collapse into UCEs. The main obstacle today is not a lack of financial or technological capacity. It is the lack of an ethic that considers humanity as one single unit. The economic interests may be global, but the ethic is parochial. The reason is that the citizens, the politicians of the great powers do not feel the effects of the economic non-viability being suffered by the majority of the world's population. In this respect, the world is not so global. There is still no inextricable connection between the misfortunes of the South and the well-being of the North. The only tie existing today is the compassion of a handful of persons and NGOs, but this cannot create a new global ethical conscience.

Within this international context, the great powers will continue to consider case by case the national self-depredation conflicts and the implosion of countries into UCEs. Some countries will be abandoned, like Somalia, while others will be supervised but not modernized, such as Haiti. Preventive intensive care will be reserved only for those countries that some theoreticians have called 'pivotal states' – that is, countries such as Afghanistan, Algeria, Colombia, Egypt, Indonesia, Iraq, Mexico, Morocco, Pakistan, Saudi Arabia, South Africa and others, whose stability must be maintained because their collapse into anarchy would represent a threat to the interests of the great powers.⁷

The Anthropocene

Homo sapiens not only preys on other members of *Homo sapiens*, as though they belonged to a different species, he also recklessly plunders the irreplaceable natural resources of his habitat, thereby overheating its climate – driven by the ideology that material progress has and should have no limits.

According to the 4,000 men of science on the United Nations International Panel on Climate Change (IPCC), global warming is now an established fact. During the twentieth century, the temperature of the earth increased by 0.74 degrees centigrade, accelerating the hydrological cycle. The growing frequency and intensity of

hurricanes, cyclones, typhoons, torrential rains, floods and the corresponding droughts around the globe bear witness to this dire fact.⁸

In the view of Nobel Prize laureate Paul Crutzen, we are no longer living in the Holocene, which is the climatic period that followed the Ice Age, but rather in a new climate era created by man himself, which he has christened the Anthropocene. Crutzen sets the beginning of this period in the year 1790, when James Watts perfected his steam engine, unaware that he was thereby changing the climatic history of the planet. In fact, the Industrial Revolution took off under full steam, driven by highly contaminating fossil fuels such as coal and petroleum. Since that period, the amount of carbon dioxide in the atmosphere has continually built up, creating a greenhouse effect which is perilously heating the climate of our planet.

If drastic action is not taken to reduce these emissions, the IPCC scientists predict, the global temperature may increase, in the most favourable estimates, by between 1.8 and 4.0 degrees centigrade by the year 2100. A temperature increase of even 2.4 degrees centigrade, they consider would be extremely dangerous for the prosperity of all countries and, above all, a disaster for the underdeveloped world. On the basis of this scientific estimate, the IPCC is asking for immediate action to reduce emissions drastically by the year 2015 at the latest.

Doubtless the countries most seriously affected by climate change will be the developing countries, since they do not have the resources needed to mitigate the effects of the hydrological catastrophes they will suffer. The World Bank has estimated that a rise of 2 degrees centigrade in the global temperature will cost the developing countries a reduction in their GDP growth of nearly 5 per cent. Many countries already have non-viable national economies (NNEs), due both to their lack of technology and to the fact that, over the past fifty years, their per capita income has grown by 2 per cent at best. Under the calamities caused by climate change, they will not only be unable to develop, but many of them will risk collapsing into UCEs. Thus global warming will cause a totally adverse climate, in which countries attempting to escape poverty will find development all too elusive.

So long as gas emissions continue to build up in the atmosphere, with the resultant warming of the climate, the aforementioned hurricanes, cyclones, torrential rains, floods, and the phenomenon of El Niño, which are already laying waste to poor countries, will become even more destructive. Droughts and the consequent desertification will have worsening effects on food production worldwide. In addition, within a couple of decades the glaciers of the Andes and the Himalayas will have shrunk, seriously diminishing the water supply and contributing to an even greater loss of food production. At the same time, the Arctic, Greenland and the Antarctic will suffer considerable melting, raising ocean levels which will threaten many small countries, islands, estuaries, coasts and heavily populated port cities – homes to the majority of humankind – with permanent inundation.

Of all these effects, the most dangerous threat to the viability of the so-called developing countries will be the growing scarcity of water. Water is becoming as strategic a resource as petroleum. It causes disputes that may grow into violent domestic and international conflicts. In China and India, the most populous countries on the planet, water scarcity is constantly escalating, because of their expanding urban populations. Add to this the disappearing glaciers of the Himalayas and the resulting loss of volume in the Yellow, Yangtze, Brahmaputra and Ganges rivers. Inevitably the question arises of how China and India will be able to overcome the colossal problem posed by their shrinking water resources in the face of their exploding urban populations. No one seems to have the answer. What is certain is that a loss in the volume of these great rivers would cause an enormous ecological collapse, jeopardizing the governability of these two nuclear-armed mega-countries which house one quarter of the world's population.

As mentioned, not only are the Himalayan glaciers disappearing, those of the Andes are melting rapidly as well. The experts opine that they could disappear in fifteen to twenty-five years, leaving some 40 million persons without water in the great cities and agricultural regions of Bolivia, Colombia, Ecuador and Peru. One study by the Andean Community concludes that these glaciers'

disappearance would cost some \$30 billion, seriously decreasing the Andean countries' GDPs.

Another obstacle contributing to the mythification of development will be the reduction of agricultural land per capita in the planet; this inevitably makes food scarce and more costly. All agricultural land today is suffering degradation, even in the wealthiest countries, such as the United States and Canada, the granaries of the world. According to the World Bank, food production has decreased in eighty developing countries, a situation bound to become more drastic with the droughts and floods caused by climate change. The growing cost and scarcity of food will have the most serious effect on the net food-importing poor countries, particularly those already undergoing droughts and desertification, such as those of East Africa, the Sahel, the Maghreb, the Andes, Central Asia, China and India.

One of the most devastating effects of global warming is the increase in the oceans' temperatures, bringing more frequent and destructive hurricanes, cyclones, and typhoons, as noted above. The number of grade 4 and 5 hurricanes, that is, with winds of 200 to 300 kilometres per hour, has grown significantly, and scientists do not expect their violence to decrease in the future. Global warming is also exacerbated by the intensity of the phenomenon called El Niño. The National Oceanic and Atmospheric Administration of the United States reports that during the twentieth century, twenty-three Niños occurred, but the four strongest happened after 1980. The Niño's intensity is such that today it has become global, affecting Oceania, Asia and almost the entire Pacific coast of the American continent, with repercussions reaching as far as Africa.

The shrinking glaciers of the Arctic, Antarctic and Greenland added to the burgeoning destructive force of hurricanes, cyclones and typhoons, as well as El Niño, are becoming a threat to the very viability of the majority of the world's population, who live in under-developed countries. For some of these countries, climate change will gradually have effects similar to those of a nuclear war, because it will annihilate them physically. Such could be the fate of many small island states, which are already affected by rising ocean levels.

Not only will climate change definitively confirm that development was one of the great myths of the twentieth century, but it will also become a serious threat to international peace and security. The environmental situation of the planet has become a parameter applied to strategic studies, because the frequency of devastating meteorological phenomena, the melting glaciers and the rising oceans will combine to destabilize many poor countries, leading to domestic and international conflicts.

A study by the think tank International Alert states that some forty-six countries of Africa, Asia and South America, with 2.7 billion inhabitants, will in the future run the risk of engaging in armed struggles as a consequence of climate change. They estimate that another fifty-six countries, with 1.2 billion inhabitants, will suffer serious political instability for the same reason. The root causes of these conflicts and political instability will be the serious lack of food and water, as the result of the persistent sequences of droughts and floods caused by hurricanes, cyclones and torrential rains. A Pentagon study entitled 'Climate Change and the National Security of the United States' predicts that the great scarcity of water and the massive droughts caused by climate change will affect food production, causing more than a few national and international tensions and conflicts, with the resulting waves of refugees. In the same vein, *National Geographic* magazine finds that, if the melting of Greenland continues, ocean levels could rise three metres by 2100. Such a rise, according to this magazine, would change the geopolitical map of the world, since it would obliterate several small island states and drastically flood Bangladesh and the great Nile delta. As an inevitable consequence, vast numbers of refugees would move towards already-crowded neighbouring regions, engendering inevitable conflicts.

The most fragile countries faced with climate change, and the most likely to undergo serious socio-political upheavals as a result, are the African, Asian and Latin American states that are already subject to devastating droughts. To this group must be added the forty-six small island states of the Caribbean, the Indian Ocean and the Pacific, which are suffering from more frequent and violent hurricanes, cyclones and typhoons than in the past, with the

future prospect of pervasive flooding due to rising sea levels. Other areas under serious threat from the mounting tides are the massive human settlements in the deltas of the Nile, Ganges, Brahmaputra and Mekong rivers. In contrast, the changing climate will cause grave water shortages during this century for the Andean countries and the enormous populations of China, India and other Asian countries, as it continues to melt away the Andean and Himalayan glaciers.

This mass of countries, whose populations total in the billions, confirms the link emerging between climate change and domestic and international turbulence. Based on the vision of this trend, when I was the Peruvian ambassador to the United Nations I launched an initiative to coordinate with my colleagues from the environmentally vulnerable/threatened countries – in particular with the ambassadors from the small underdeveloped island states – to bring before the UN Security Council a proposal to consider climate change as a new threat for peace and security, since its effects on the environmentally vulnerable countries are as devastating as war.

Today the Security Council has included on its agenda the question of climate change as a threat to world security and peace. This amounts to a great step forward, because Article 39 of the United Nations Charter empowers the Security Council to formulate measures to counteract this menace by setting limits on greenhouse gas emissions for each country and eventually establishing sanctions for those who do not comply with these standards. For the moment, the five permanent members of the Security Council – the greatest producers in the world of these gas emissions – hold this goal in stalemate, opposing any attempt to limit their own emissions. Nevertheless, the fact that the proposal is on the Security Council agenda is important. If efforts to reduce greenhouse gas emissions continue to fail, an avenue is thus available for the developing countries to petition the Security Council for action to reduce the emissions and to compensate them for the damages caused by the emissions.

It could be held that the only two truly natural disasters are earthquakes, which are totally unpredictable, and volcanic eruptions,

which are inevitable. With the exception of these two catastrophes, the present exacerbation of hydrological disasters is induced by indefensible human activity. This anthropogenic activity has distorted the earth's hydrological cycle. Since 1980, some 12,000 hydrological disasters have occurred, producing 618,200 victims. The average annual cost of these events has grown from \$26 billion in the 1980s to \$67 billion in the following decade, while the number of human fatalities due to hydrological disasters also surged, from 22,000 in the 1980s to 33,000 in the 1990s. The United Nations Programme for the Environment estimates that by the end of 2010 there may be up to 50 million environmental refugees.

Throughout the twentieth century, economic thought was based on the premise that the planet could provide for perpetual economic growth. Today this belief has proved to be a fallacy, divorced from the environmental reality of the earth. As of this century, if we are to understand the world's destiny the ascientific economic forecasts will need to be replaced with environmental predictions. That is, we will need to replace the myth of economic growth with scientific data on the depredation of the planet.

An indicator of barbarism

Behind the Anthropocene and the disastrous consequences of climate change is no doubt found the ideology of perpetual progress, achieved through the growth of the GDP. This indicator, which calculates the growth rate of total national production, does not factor in the depredation of non-renewable natural resources. Thus, the accounting of the nations' progress and economic growth includes activities that warm the planet, contaminate the air, the rivers and the oceans, destroy forests, urbanize the scarce agricultural land, produce enormous waste dumps, and destroy biodiversity. Even though the growth of GDP entails the destruction of the human habitat, most economists and, above all, most politicians venerate this form of growth as the totem of development and national prestige. Venerating the destruction of one's own habitat is as illogical as venerating the cancerous cells that grow by destroying their own organism. Today this self-destructive ideology has reached its

limits. After two hundred years of industrialization and neglect, the earth has said 'enough' to the barbaric GDP-based cult of growth, with its ballooning environmental disasters; it is reminding humankind that its natural resources and its capacity to absorb pollution are not infinite.

Today GDP growth is fast becoming a colossal fallacy when set against recent studies on climatology, biodiversity and glaciology. Indeed, the economists who officiate as the high priests of perpetual GDP growth are beginning to appear to the real scientists as quacks, obsessed by the idea of an unlimited material progress that has no relation to the geological, biological and climatological capacity of the earth.

The economists calculate not only the GDP of each country, but also the gross world product (GWP), which aggregates the GDPs of all the countries in the world. If this indicator of global economic growth is subjected to the same criticisms applied to the perpetual growth of the national product, clearly the GWP may grow, but the planet does not. Thus both GWP and GDP are scientifically false indicators, based only on the national or global production of goods and services, with no thought for the sustainability of the earth itself.

The Worldwatch Institute's analysis of resource consumption finds that humankind is using resources twenty-one times faster than the earth is able to renew them. Such is the situation with regard to water supply, as well as agricultural land use. Today every person uses an average of 2.2 hectares of productive land, but there are only 1.8 hectares available globally per person. Likewise, the global consumption of petroleum expanded by 700 per cent between 1961 and 2007. At this rate, world reserves of this hydrocarbon will be exhausted by approximately 2030.

According to a study by 1,300 experts from 95 countries entitled 'Evaluation of the Millennium's Ecosystems', 60 per cent of the ecosystems that permit life on the planet are being degraded. This study concludes that over the past fifty years human activity has negatively transformed the ecosystems more rapidly and profoundly than at any other time in history. However, since the middle of the twentieth century, economists have described this

process of environmental destruction as the 'economic and social development' of mankind.

How can the destruction of our very habitat be seen as our economic and social development? Has the evolution of the human species – instead of inspiring it to adapt to its planetary environment – incorporated some sort of flaw in its structure, leading it to destroy its own planet and to rationalize the process as the pursuit of well-being and happiness? If we still believe that the human race has no such evolutionary flaw, we must hasten to find a new and more realistic indicator for the measure of human well-being – a new gauge that is neither scientifically wrong nor wedded to an ethically absurd conception of human felicity.

Fortunately, efforts are now made to replace the barbarous indicator that is GDP with a new realistic and ethical calculation of the wealth of nations. University of Maryland professors Herman E. Daly and John B. Cobb Jr, for example, have proved that GDP can be replaced with a new yardstick for prosperity called the Index for Sustainable Economic Welfare (ISEW), wherein the economic losses due to water and atmospheric contamination, destruction of agricultural land, deterioration of the ozone layer, and consumption of non-renewable natural resources, are subtracted from GDP. When these negative factors were deducted from the GDP of the United States, the image of North American prosperity changed. Rather than US income per capita having increased, as the official statistics showed, it had decreased.

Within this new perspective on the wealth of nations, another group of specialists from the United States developed an index called the Genuine Progress Indicator (GPI). Similar to the ISEW of professors Daly and Cobb, this yardstick subtracts from GDP the economic costs of destroying non-renewable resources, of air pollution, of energy waste due to automobile traffic congestion, and of delinquency. Calculating the per capita income of the United States for the period 1982–2002 according to GPI standards shows it increased by only 2 per cent, rather than the 56 per cent reported in official statistics.

Among the new proposals for harmonizing the economy and the environment, Professor Hiroyuki Yoshikawa of the University

of Tokyo has envisioned what he calls the ‘inverse factory’. This would consist in creating around the world a new cyclical industrial system composed of industries devoted only to recycling and creating recyclable products, that is to say, industries that produce not waste but inputs for other recyclable goods. These inverse factories would protect the environment and create employment, as well, since they could be installed as a new industrial system in the poor regions of the world.

The Nobel Prize laureate Amartya Sen was one of the first economists to maintain that development is not determined by GDP but by the peoples’ conviction that they have achieved self-respect and are leading full and dignified lives. For this end, enjoying access to health, education and culture is most important. Another Nobel Prize winning economist, Joseph Stiglitz, affirms that GDP growth is deceptive because it does not measure citizens’ quality of life. He cites his country, the United States, as an example, arguing rightly that despite its high growth rates, during the 1990s social inequalities grew markedly as a result of poor income distribution. He points out that if people could choose the country where they could live well, they would not select the country with the highest GDP growth rate; they would prefer a country with an attractive average personal income, with good social security services and very little delinquency.

Paul Krugman, another US Nobel Prize winning economist, also insists that his country harbours a contradiction between its GDP growth rate and the meagre growth of the average income of 90 per cent of its citizens. According to Krugman, the GDP growth of the United States during recent decades has favoured only the rich and has today consolidated a plutocratic nation. In fact, the CIA *World Factbook* shows, more than any other study, the divorce between the GDP growth rate and the growth of incomes and social equality in the United States. This study reveals that since 1975 all the income growth in the United States has been concentrated in the wealthiest 20 per cent of the population. Since the year 2000, the billionaires’ club has gained 76 new members, while the numbers on middle incomes have declined and the poor have increased by 5 million members. Now, as a result of the 2008

crash, the number of the poor is still larger, because US families have lost 20 per cent of their income and many of them have lost their homes as well.

Traditional economists mistakenly believe that economic growth not only enriches the nations but also makes the people happier. Nowadays we have sufficient statistical evidence and psychological studies to prove that the developed nations are not necessarily the happiest. In many wealthy consumer societies, the levels of stress and depression, as well as the rate of suicides among young people are larger than in many underdeveloped countries. Recent studies in the United States show that a large majority of young people are not as happy as their parents and grandparents were, even though the latter were poorer than these youths.

All this does not mean that the miserable and poor populations living on \$1 or \$2 a day are happy. It does mean that, after fulfilling basic necessities, for a dignified life happiness depends more on self-esteem and personal ethics than on the growth of one's economic environment. For this reason, many modern economists, especially those from the United States and Britain, are losing faith in the simplistic value of economic growth. The distinguished University of Illinois psychologist Dr Edgard Diener has prepared, in collaboration with a large number of scientists, a manifesto entitled 'Guidelines for National Indicators of Subjective Well-being or Misery'. Among the indicators are good and bad feelings, perceptions of good or bad health, personal satisfaction or lack of the same regarding certain current events, and lack of time for personal pursuits. In short, the manifesto offers a complete ethical guide for determining the quality of life, far removed from the deceptive and indefensible GDP growth rate.

In truth, behind the existing cult of the GDP growth rate, the ideology of perpetual material progress that emerged during the Industrial Revolution is still alive. It propagated the belief that humans dominated nature and that the future of humankind depended not on natural factors but on productive elements. Underlying this ideology, all economic thought is still dominated

by the premise that the planet has the capacity to provide perpetual material growth. Today this premise is a fallacy, totally at odds with the climatic reality of our planet. Perhaps, many years hence, when future generations study the method of measuring the wealth of the nations of our civilization, they will qualify GDP as the most conspicuous indicator of our barbarism.

6 | The Crisis of the California Model

The physical-social imbalance

Californian cities have the highest growth rate in the entire United States and indeed in the entire industrialized world. During recent decades, as the result of immigration and births, the urban population of California has grown by half a million persons each year. Now more than 80 per cent of Californians live in metropolitan areas that exceed 1 million inhabitants.

The king of this colossal urban expansion is the private automobile; many Californians have more than two cars. The reign of the automobile has permitted the expansion of Californian cities into ever-more-distant suburbs, some of which now reach the Arizona state line. Due to the reign of the combustion engine, the traffic in and around these cities suffers gigantic bottlenecks, which emit tons of carbon dioxide, the main gas that pollutes the atmosphere and heats the earth.

Such urban expansion into the Central Valley of California, an agricultural emporium spanning nearly 1,000 kilometres, is burying under cement and asphalt one of the most productive agricultural regions in the world. Between 1992 and 1999, 24 per cent of farmland in California was built upon. Water shortage is already an issue in this state, and if the population continues to increase in urban areas to the detriment of farming, its food security will be at risk – something that has never before worried Californians. This could undermine the productive life of a great American state, which is one of the top eight economies in the world.

A baby born in California represents double the environmental burden for the planet caused by one born in Sweden; three times that of an Italian baby; thirteen times that of one born in Brazil; thirty-five times that of a baby born in India; 140 times that of one born in Bangladesh; and 280 times that of one born in Chad, Rwanda, Haiti or Nepal. Can we, then, reproduce the Californian

environmental burden, which is the model for consumption patterns spread by globalization, for the 70 million babies born each year on the planet?

The colossal, environmentally unsustainable urban expansion in California has caused alarm. The Democratic and Republican parties agree that a threat exists to the Californian quality of life and prosperity, but they do not agree on a method for finding a viable alternative. Thousands of civil society organizations have proposed alternative solutions, adducing that the present model is no longer viable since it is financially and environmentally unsustainable. At present the State of California is bankrupt, with a budget deficit of \$62 billion. Its governor, the former actor Arnold Schwarzenegger, has taken on once more his role as the 'Terminator', slashing major social programmes that affect health, education and social welfare in his state.

The great problem with California is not only that it is the most extremist expression of the 'American way of life', but that it is also the global model for urbanization – a paradigm of the urban life that enthuses rich and poor alike. The whole world dreams of living like a Californian: owning a car, or two if possible, buying a new house with a garden and a pool and living in the fashionable suburbs. At the same time, people wish to have a huge shopping centre nearby, membership to a country club, and a house on the beach or in the countryside for weekends.

Today the Californian model of urban expansion is, to a lesser or greater degree, the global paradigm of urbanization and civilization. All the world's cities expand by pouring cement, by destroying agricultural lands and biodiversity, by insatiably devouring water, food and petroleum, by turning the private automobile with its combustion engine into the transport king, spewing into the atmosphere tons of carbon dioxide and other greenhouse gases, polluting the air and compounding global warming.

The year 2010 will be remembered as historic for humankind: for the first time since the Neolithic era began more than 50 per cent of the planet's population were living in cities. In the year 2050, the planet will be super-urbanized, with more than 80 per cent of its inhabitants living in sixty megalopolises and hundreds

of cities of roughly 1 million inhabitants. The greater part of this unstoppable planetary urbanization is occurring in the underdeveloped countries. Thus the cities of Latin America, the Middle East, Asia and Africa are expanding, like those of California, over agricultural lands and forests, consuming the water that should be used for food production, clogging their streets with automobile traffic and its pollution, adding more carbon dioxide and other greenhouse gases to those already accumulated in the atmosphere since the industrial revolution of the developed countries.

According to United Nations statistics, urban expansion in the underdeveloped countries is adding half a million persons per week to their cities. Most of these internal migrations are of poor peasants seeking work and of refugees from civil wars or natural disasters, in particular droughts and floods. Most of these migrations help to create slums or extend existing ones, resulting in very poor, chaotic, polluted cities where unemployment and delinquency are rife. This poor-city explosion will need the support of enormous supplies of food, energy and water – three increasingly scarce and costly resources throughout the world. Without them, the megalopolises will become real human infernos and environmental time bombs.

The present poor, underdeveloped urbanization is a new phenomenon; it does not follow the pattern of London, New York, Paris or Berlin – cities that were backed by an industrial revolution that employed quantities of workers and benefited from cheap coal and petroleum. In the nineteenth century, labourers as a last resort could emigrate legally to the colonies or any other part of the world. The explosive growth of cities in underdeveloped countries today relies on no such advantages. Rather they are plagued by unemployment or underemployment in the so-called informal sector, delinquency, water and light shortages, costly and scarce food supplies. Those who try to emigrate to the developed world risk being treated as criminals or, at best, illegal workers.

By 2020, the population of the underdeveloped countries will have reached 6 billion, the great majority of whom will be living in cities. Such a mass of humanity will consume millions of litres of water, tons of food, and incalculable amounts of energy. Following

the present trend, these vital resources will be ever more limited and expensive. At that point, what I call a physical-social imbalance will emerge between the available supplies of water, food and energy on one hand, and the poor countries' burgeoning urban populations on the other.

One of the best examples of the physical-social imbalance generated by the California model, between the population and the supplies of water, food and energy, is the explosive urbanization of China. The Chinese urban population has tripled since 1990. The number of cities in China has quadrupled; seven hundred new cities have arisen, while the existing cities have expanded. This colossal urban expansion has generated a deep physical-social imbalance. Today more than four hundred Chinese cities suffer from water shortages. Also, in imitation of the California model, the enormous increase in private automobiles in China has created the greatest source of air pollution in the world. The Chinese automobile fleet has already multiplied 130 times, necessitating the construction of some 100,000 kilometres of highways. Were this model to continue in force, and half of the Chinese population to become automobile owners, there would be 600 million cars in China – more automobiles than exist today in the entire world. The highways, parking lots and gas stations required for such a number of cars would consume the meagre agricultural land on which China depends for food production, and the contamination would make the cities uninhabitable.

The world today has many cultures but only one civilization, the global urban California model, which is present, to a greater or lesser degree, in all countries. This urban civilization model has reached a crisis: so far, due to ethical, political or technological factors, it has been incapable of solving two problems that are fundamental for its sustained existence. First, it has been unable to substitute its dirty fossil fuels, such as coal, petroleum and gas, causing the threat of global warming, and second, it cannot change its consumption patterns, plundering the earth's resources and converting it into a gigantic garbage dump.

A great many economists and politicians do not realize that the present crisis afflicting the world is not only a huge economic

recession but also a crisis of civilization. It is a crisis in the style of urban life – consumerist, free-spending, environmentally unsustainable – of the California model, which has been upheld by abundant credit, enormous debts, and deficits. All of this has ended in global warming and created a financial crisis that has engendered a global recession.

The politicians reactivating the economy do not realize that applying John Maynard Keynes's recommendations in the twenty-first century is dangerous, because this distinguished economist never imagined that there would be opulent consumer societies spewing gases that would cause global warming, beginning to melt the polar ice caps and the world's glaciers, raising the level of the oceans, all this combined with a gigantic world water shortage. Few people are aware that this crisis is different, that our planet, with the constant warming of its climate, warns us not to revert to unsustainable patterns of consumption dependent on greenhouse-effect energy sources (coal, petroleum and gas). The price to pay will undoubtedly be steep in terms of future catastrophes. The planet has become a participant, and the crisis now has an environmental dimension that it lacked in 1929. To judge where our civilization is headed today, it is more important to know about the environment than about economics. In the twenty-first century, the American dream, wrapped in its cloud of greenhouse gases, can no longer be reproduced, since the earth has deemed the global urban model of great consumption and waste to be unsustainable. This model has been bolstered by easy credit and financial speculation leading inexorably to global insolvency.

However, it is very common today to hear the concept of 'sustainable development' recommended as a panacea to solve this civilization's crisis. In fact, the proposed 'sustainable development' is an oxymoron, since development cannot be sustainable. No renewable energy source, nor even a combination of many resources, could replace today's daily requirement for 90 million barrels of petroleum to generate the 320 billion kilowatt-hours that produce the \$58 trillion worth of goods and services of the global economy.

More than 75 per cent of the energy used globally today is in the form of petroleum, coal and gas. At present, our civilization

is still far from capable of living without these polluting energies because the renewable energies that could replace them and make development really sustainable are not yet readily available. So far, these renewable sources of energy account for only 7 per cent of total energy consumption worldwide. Solar and wind-driven energy are in use already but they face two problems: their cost, and the difficulty in storing them for days without sun or wind. The other source of renewable energy being fully developed is the biomass that produces ethanol. This method, however, requires large extensions of agricultural land and a great deal of water, at a moment when these two elements are under the pressure of growing demand consequent to unstoppable planetary urbanization.

The only renewable energy source that is totally clean and perpetual, and could replace petroleum and coal, is hydrogen fusion. Achieving this energy would be like finding the holy grail of lasting, clean energy, or like producing on the earth the energy of the sun, with no danger of radioactivity. Fusion energy is still a project that needs vast research and development and billions of dollars. The experts believe that it would take another twenty years of research to make it feasible.

In any case, if we are to escape the crisis of our civilization, it is urgent that we continue developing more efficient and less costly sources of renewable energy, not only because global warming must be stopped, but also because the petroleum that moves the global economy at present is not everlasting. Studies and the opinions of qualified experts agree that the world's reserves of petroleum are running out: its production has already reached its peak and will begin its inexorable decline within fifteen years.

It is not sufficient, nevertheless, to change energy use patterns with a view to overcoming our civilization's crisis; we must also begin to change our patterns of consumption, which are polluting our cities, oceans and rivers, destroying biodiversity and the forests and converting the planet into a gigantic garbage dump. What would happen if the 5 billion inhabitants of the poor countries consumed as much as the Californians, who consume thirty-two times more than the average of all the underdeveloped countries? According to Professor Jared Diamond, that would be equivalent

to a world population of 72 billion inhabitants – a mass that the earth could not sustain. We would have to buy ourselves another planet, or perhaps two.

While scientists agree that our consumption patterns must change, no one has the magic formula. Change in our consumption implies, above all, an ethical change. We need an ethical renaissance to modify our hostile relationship with our planet, and that is a tall order. It cannot be achieved overnight. In any case, history teaches us that *Homo sapiens* changes not through virtue, but only through fear or suffering in the face of great threats or tragedies which endanger human existence. This could occur when we are confronted with recurrent environmental catastrophes, products of the planet's revenge.

By 2050, the planet will have 10 billion inhabitants, most of them urban dwellers. If by that time we have not modified our dependence on fossil fuel energy and our patterns of unsustainable consumption, our civilization's global, urban crisis will worsen, as the result of the physical-social imbalance between the available supplies of water, food and energy existing on the planet and the 6.5 billion inhabitants of the world's cities.

The decisive factors

What, in the last analysis, makes a nation-state viable? After reviewing the history of civilizations, I reached the conclusion that, since the beginnings of mankind, the fundamental requirement for civilized life and prosperity is that the population have a secure access to essential resources, such as water, food and energy.

All the civilizations that have survived did so by maintaining sufficient water, food and energy for their populations. Those that did not achieve that fell into a physical-social imbalance between these vital resources and the population, causing great political upheavals and, finally, the collapse of the state and of civilized life. The possibility of such a collapse is ever more present today, because global warming and the unstoppable global urban demographic expansion are combining to make scarcer and more costly the essential supplies of water, food and energy without which humanity cannot survive.

If the urban populations of Africa, Asia, and Latin America continue to grow, outstripping the production of food, energy, and water, the result will be more poverty, caused by a tremendous demographic pressure on these three crucial resources. The urban demographic explosion will encroach on agricultural lands, thereby making the lack of food security more acute. In the cities, with water scarce or polluted, epidemics will become endemic. Searching for fuel, the population will chop down the forests, causing soil erosion and an even greater decline in food production. With an urban population explosion and shortages of food, energy and water, there can be no hope of achieving development. Without water, the nation will not have food; no school will be of any use if the children are undernourished; no factory will have high production without energy and water; no family can lead healthy lives without sufficient food, water and energy. There will be constant poverty, sickness, unemployment, and rising delinquency, and the social fabric of many poor countries will unravel even further.

Among a series of recent multidisciplinary studies on population and world resources, the one prepared by the North American organization Carrying Capacity Network (in two volumes, totaling 2,600 pages) is noteworthy. These studies conclude that vital resources such as food, energy and water are becoming scarce and expensive in view of the surge in the poor urban population of many countries. Another interesting study, by Goldstone, on revolutions and rebellions in the modern world, explains with great erudition how the English revolution of 1640, the French revolution of 1789, the Central European revolutions of 1848 and the rebellions in the Ottoman empire and in imperial China arose from a lack of political capacity to meet the serious problems that were caused by the constant growth of the population and the shrinking supply of resources.¹

According to Goldstone, the political instability that is born of the growing discrepancy between population growth and resource levels is analogous to the instability of the tectonic plates of the earth. That is to say, it is known that some day the interaction of these tectonic plates is going to produce an earthquake, but nobody can predict exactly when it will occur. It is not possible,

either, to predict when a country will have passed the limit of tolerance of the gap between its population and its resources and when it will implode violently. Even less can anyone predict whether this violence will be disguised as an ideology, a religion, or an ethnicity, or if it will simply be a mixture of anarchy and common delinquency.

Professor Homer-Dixon of the University of Toronto, who has made possibly the most profound studies on resource scarcity and resource security, contends that up until now, the whole focus on the problems of the underdeveloped world assumes that the future of the poor countries is determined by socio-economic causes more than by natural causes. According to this researcher, this traditional view is the product of an ideology of progress that since the Industrial Revolution has forgotten nature. He feels that nature is coming back to take its revenge, in the form of resource scarcity and climatic change, at the very moment when an urban population explosion is assailing the planet. Homer-Dixon considers that in order to have a clearer idea of what will happen socio-politically in the world, a physical and social theory is needed. This means a vision in which the destruction of the environment and the dwindling supply of physical resources for life, in relation to the growth in population, count for more than do the traditional socio-economic theories.

By 2020, the population of the poor countries will have more than doubled since 1960 levels, reaching 6 billion, and it will be largely urban. Unless a drastic, unprecedented fall in the birth rate occurs and is coupled with an unprecedented rise in the supply of food, energy, water and jobs, the greater part of the population of the underdeveloped world will live in chaotic cities and megalopolises with millions of poor and unemployed, without adequate incomes, beset by malnutrition, pollution and violence.

For nearly all of Africa, for some countries of Central America, the Andean region, the Middle East and Asia, the great challenge for the beginning of the twenty-first century will not be national development. It will be, instead, national survival. In other words, it will be a question of avoiding further disintegration of the social fabric, as well as of preventing the collapse of the project of the

nation-state. These countries' governments and their incipient civil societies will have to expend an enormous effort to establish a balance between the supply of food, water and energy and the size of the urban population.

Thus, increasing the supply of food, water and energy, reducing the rate of population growth, and obtaining a strategic advantage become the decisive factors for national survival as the new millennium begins.

Water

Water to produce food and supply industrial and human consumption is scarce and difficult to access in vast areas of the globe. Some 97 per cent of all the earth's water is saline, and three quarters of the 3 per cent that is fresh is concentrated in inaccessible geographical areas, such as polar regions and glaciers. As a consequence, only a small fraction of the planet's water is both fresh and accessible in rivers, lakes and underground water tables. According to international hydrological studies carried out by the United Nations and the Stockholm Institute for the Environment, even this small fraction is diminishing and in 2025 two thirds of the world's population will be affected by water shortage. This is because of the diminishing of the earth's hydrological cycle, caused by the urban population explosion. The symptoms of a water crisis are already visible: underground water, lakes and rivers are shrinking all over the world.

Water security, always a condition for the existence of a civilization and a nation-state, has begun to disappear in many countries. According to the UN report cited above, already today more than 2 billion people suffer water shortages in more than forty countries. The World Bank estimates that 1 billion persons already live without enough drinking water and 1.7 billion lack sanitation. The lack of drinking water and sanitation is condemning millions of the inhabitants of underdeveloped cities to sickness and premature death. Having a safe water supply is becoming a decisive factor for national survival.

Even where water is available, the crucial problem is whether it is drinkable. Nowadays, most of the rivers, lakes and streams that

flow through large and expanding human settlements are polluted by agricultural pesticides, industrial waste and human excrement. The process of depletion and pollution of the available water is far more acute in the poor countries. Today, half the population of the underdeveloped countries live with a water shortage and suffer diseases related to water pollution, diseases which cause some 25,000 deaths daily. Only 2 per cent of human excrement and industrial waste are subjected to some sort of treatment. The rest, nearly 2 million tons daily, is dumped in ways that pollute rivers, lakes, seas and underground water tables.²

As a result of the explosive growth of cities and droughts caused by global warming, farmers in the poor countries will be under pressure to produce more food using less water. Poor countries that suffer from a lack of water security will have great difficulty in attaining that goal if the water from their rivers, lakes and underground strata, instead of being channelled to irrigate crops, is directed in increasing amounts to sanitation pipes, industrial use, swimming pools, parks, golf courses and stadiums.

The United Nations considers that the minimum requirement for a healthy and active life is 2,000 cubic metres of drinking water per person per year. The countries with water resources already close to that limit for survival are: Algeria, Burundi, China, Egypt, Ethiopia, Haiti, India, Jordan, Kenya, Morocco, Oman, Pakistan, Peru, Rwanda, Sri Lanka, Yemen and Zimbabwe. In 2005, many cities of these countries could count on only half the amount of water that they had in 1975. The most seriously affected were the large cities, such as Algiers, Amman, Cairo, Casablanca, Lima and Tunis.³ The water shortage in these underdeveloped countries is a problem not only of physical quantity but also of personal income and of the equal adjustment of consumption to the national environmental reality. Cities where the greatest part of the population is concentrated in huge arid zones cannot continue to grow in the shady green style of Beverly Hills.

The countries identified as having a chronic water shortage will not only be forced to import the food that, without water, they are unable to produce; they will also be exposed to epidemics. Megalopolises built in arid zones, such as Cairo or Lima, will be

the first in the twenty-first century to suffer the devastating effects of water scarcity on the inhabitants' quality of life. Soon they will be joined in their misfortune by other huge cities, because by 2020 at least 70 per cent of the planet's population will be urban and the planet's water cycle will be insufficient. By about 2020, the number of persons living in countries with insufficient water will have reached nearly 3 billion.

There is no doubt that the problem of water supply, both for agricultural use and for the urban population, has become more political in the twenty-first century. This is a consequence of both the insatiable thirst produced by the world urban demographic explosion and to the need for irrigation to produce more food for the cities. In addition, global warming will increase the scarcity of water with greater frequencies of drought around the world.

By the year 2020, water will be as strategically vital for living as petroleum. Hence, it would not be at all surprising if its scarcity were to provoke national and international upheavals reminiscent of the oil crises of the twentieth century. It is very possible that capturing water sources or polluting reservoirs may become strategic objectives of war plans and of terrorist attacks.

If countries that have considerable urban expansion and that are suffering droughts, desertification and water shortage do not begin to remedy the situation in the first decades of the twenty-first century, they will have to confront a growing water crisis. The worst situation will be that of countries that already have a low rate of water consumption per inhabitant and that concentrate the greater part of their population in mega-cities located in arid zones, as is the case of Algeria, Egypt, Iraq, Jordan, Kenya, Lebanon, Peru and Syria.

It is also very possible that water shortage may cause domestic upheavals in mega-countries like China and India, where urban expansion is continuing at full steam. In China, there is already a dire scarcity of water in nearly twenty-two large cities. Millions of Chinese are migrating towards the coastal cities, depopulating the countryside of farmers, and consuming in the cities part of the water that was formerly used for food production.⁴ India is in no better condition. Drought and lack of water are persistent because of soil erosion caused by deforestation, which is itself

caused by the search for firewood. This water shortage is causing serious problems for the agricultural sector and for the mega-cities of India, making it necessary to use increasingly the exhausted volumes of the Brahmaputra and the Ganges rivers.

Disagreements over the use of the great international rivers can generate international conflicts. The waters of the Tigris and Euphrates rivers, which are being dammed by Turkey to irrigate the region of Anatolia, are also vital for the survival of Iraq and Syria. If the three countries do not reach a tripartite agreement on their use, this failure may very well cause conflict in the future. In the case of Israel, Syria, Jordan and the Palestinians, agreement on the distribution and use of the Jordan river, which have not yet been defined, would doubtless be a fundamental condition for a durable peace among them. A conflictive situation could also arise around the use of the Nile's waters by Egypt and Ethiopia, since the dam that the latter country is planning to build would use part of that river's waters, which have been vital to Egypt since Pharaonic times.

For the countries that currently register the lowest water consumption per capita in the world, that have high population growth in great arid zones, and that suffer chronic droughts and have no water security, such as Egypt, India, Jordan, Kenya, Morocco, Peru and others, water security should be a strategic objective for survival. These countries have no other choice, if they are to preserve their fragile social cohesion, than immediately to adopt policies for water security. They must search for new sources of water, devise measures to save, purify and recycle the available water and also share out this national resource fairly in accordance with their environmental reality.

No one should doubt that in the new century a very low quantity and quality of water available per capita will be a clear international indicator of which countries are definitely non-viable, since they lack the most elemental resource for survival on the planet.

Food

Every country that imports food today should remember that the agricultural land per capita on the planet has diminished by 7 per cent since 1979. The soil does not produce as it used to: this

is the result of fertilizer saturation, salinity caused by bad irrigation, and desertification caused by deforestation. In addition, agricultural lands are being devoured by the unstoppable urbanization of the planet.

Agricultural production has started to decline in nearly every country. According to the World Bank, in nearly eighty poor countries, food production has lost the race with urban population growth; in this century the demand for food will increase by about 3 per cent, while food production will grow by only 2.8 per cent. Today the rate of growth of world production of basic food-stuffs – wheat, corn, soya beans and rice – has slowed. Since 1984, the rate of growth of world grain and cereal production has fallen below the rate of growth of the world population, shrinking every year by 1 per cent. The Worldwatch Institute has warned that to date there is no new technology that would restore the accustomed growth in grain and cereal production to a yearly 3 per cent and bring about another green revolution like the one that saved India and other countries from famine in past decades.⁵

Another factor that will affect the supply of food and influence its price is the expected fall in production of the most important world source of proteins; that is, fish. The seas are being depleted, and many species are becoming extinct. Since 1989, the supply of fish per inhabitant has been reduced by 8 per cent and the catches are smaller, from Iceland to Namibia, from Chile to California. The fishing fleets, with 23 million tons afloat, employing 15 million fishermen and operating with high-definition sonar and gigantic dragnets, are practically clearing the seas of fish.⁶

Also the food security of most underdeveloped countries will be affected by climate change. According to a Carnegie Institute study, global warming will hit the world's most important cereal crops. The crops' yield will fall between 3 per cent and 5 per cent for every 0.5 degree centigrade rise in temperature, affecting most the food security of net importing countries.

Furthermore, during the twenty-first century, the most populous countries on earth, China and India, will import more and more food as result of their urban expansion and environmental problems, including soil erosion, increased salinity and global

warming. These imports will further augment world demand and raise the world prices of these products, affecting in this way all the other countries that import them. Many poor countries will then be forced to beg for more international food aid to avoid serious political upheavals.⁷

All these trends are matters of grave concern: by 2020, agricultural production will need to have increased by 75 per cent in order to fill the nearly 7.6 billion hungry mouths on earth. This does not mean that we have embarked on a course that will carry us into a huge worldwide famine. The specialists hotly dispute that probability. However, they do agree that the world has entered a new era in which satisfying the food demands of the nearly 70 million human beings that are born each year in the poor countries will be more difficult and more expensive than it was in the past.

The experts of the Food and Agriculture Organization (FAO) of the UN consider that the food security of a country consists in always providing for the population a sure supply of sufficient food for an active and healthy life: sufficient, that is, so that malnutrition (under 2,400 calories daily) does not occur. At the end of the twentieth century, nearly 800 million human beings in sub-Saharan Africa, South Asia, Central America and the Andean region did not have food security and were dependent on international food aid. The countries currently most afflicted by food insecurity are: Afghanistan, Angola, Bangladesh, Bolivia, Cameroon, Ethiopia, Guatemala, Haiti, Honduras, Liberia, Mongolia, Mozambique, Nicaragua, Nigeria, North Korea, Peru, Rwanda, Sierra Leone, Somalia, Sudan and Zambia.⁸

Facing future food price increases, the industrialized countries and the NICs, such as South Korea, Hong Kong and Singapore, which have low population growth rates and reap large profits on the global market with their growing exports of high-technology manufactured goods, will have no problem in importing food even at higher prices. Neither will there be a problem for the countries that are major exporters of petroleum, like Saudi Arabia, Kuwait or Libya, even if they have high demographic growth, since their large food imports will be financed by their enormous oil revenues. The countries that will have serious problems will be those

mentioned above which have the lowest calorie consumption per capita in the world and which can only rely on the unstable income from their primary or semi-processed export products.

Those countries will not be able to import increasing amounts of food. This will make them even more dependent on foreign food aid; they will thus become indigent countries, almost bereft of sovereignty, at the mercy of the donor countries.

For such countries, attaining food security will not be easy, since its achievement does not depend exclusively on their national policies. In fact, the world trend in agricultural trade is to expose national farmers to global competition. The globalization and the liberalization of agricultural trade have granted a great power for penetrating the market to the transnational enterprises that produce food. Their very competitive prices eliminate from the competition the farmers from poor countries and erode these countries' national food security policies. This transnational power, moreover, is blessed by the new liberalizing rules for agricultural trade promoted by the WTO. These rules tend to penalize any state intervention to help local farmers and assure the supply of food. To replace food security policies, then, foreign programmes for food aid are promoted, making the poor countries even less able to produce their own food.

In consequence of the world urban explosion and the decline in irrigated land, foodstuffs are becoming veritable strategic resources for foreign policy. They will become scarcer and more expensive and will be used as levers to foster the national interests of the exporting countries. Countries without food security can hardly be viable sovereign states, because they will be at the mercy of external pressures from the countries that supply them with food aid. Thus, little by little, they will turn into beggar states. The only way to avoid this would be to undertake an enormous national campaign to increase food production and to diminish food imports and aid, to the greatest possible extent. In this sense, the minimum national goal for countries that today no longer have food security, such as Bangladesh, Ethiopia, Guatemala, Haiti, Peru, Somalia, and some others, would be to cease to be net importers of food.

Energy

All the poor countries try to copy the consumption patterns of the wealthy industrialized nations. The California model of urban modernity they try to emulate implies a growing consumption of petroleum, a non-renewable and polluting source of energy.

In consequence of these consumption patterns and of urban population growth, the voracity for petroleum of the underdeveloped countries is such that countries that once were self-sufficient and even medium exporters of oil have become net importers, endangering their energy security. Even countries that have gas deposits and other fuel sources cannot avoid importing oil; this is because of the difficulties involved in converting all the industry and transport of a country to other sources of power. Hence it is calculated that the oil consumption of the underdeveloped countries will continue to rise by 5 per cent per year, bringing in this century the demand for petroleum in the poor regions of the planet to over 50 per cent of the total world demand.⁹

Despite the high rise in demand, there are no indications of a possible cutback in the world oil supply, because the world reserves will suffice until the middle of this century, unless a major international conflict should break out affecting the Gulf reserves. Nevertheless, the prices of petroleum and of energy will rise gradually in the long run, not only because of growing demand but also because extraction costs will be higher. Additional costs will arise from the geographical location and the geological condition of new and old deposits, as well as from the use of environmentally friendly technologies in processing fuels and in all domestic or industrial transport systems.

It would appear that the price increase will not be sudden; nor will it produce world energy crises like those of 1973 and 1980. Rather, there will be a series of national shortages and energy crises that will affect many of the poor countries. This will be especially hard on those that have rapid urban population growth and that, in spite of having increased their oil imports, continue to register the lowest annual per capita energy consumptions in the world, between 200 and 600 kilos (the petroleum consumption per capita of an Asian NIC is almost 2,000 kilos). According to the

United Nations, the following countries are in this situation of fuel shortage: Afghanistan, Bangladesh, Cambodia, Congo (the former Zaire), Côte d'Ivoire, Cuba, El Salvador, Ethiopia, Ghana, Guatemala, Guyana, Haiti, Honduras, India, Kenya, Laos, Morocco, Mozambique, Nepal, Nicaragua, Paraguay, Peru, Senegal, Sri Lanka, Sudan, Tanzania, Tunisia, Zambia and Zimbabwe.¹⁰

Without doubt, these countries may have hydroelectric potential or deposits of uranium or natural gas. However, the enormous investments required in order to construct dams, hydroelectric and nuclear plants would hardly allow these countries to replace their oil imports in the near future. According to the World Resources Institute, as a result of urban population growth the future energy requirements of the majority of these oil-importing countries, in this century, would demand gigantic investments, as high as a trillion dollars. Obviously this sum greatly exceeds the foreign capital available for investment in new refineries, pipelines, dams, central power stations or alternative sources of energy.¹¹

The countries that have the lowest per capita energy consumption in the world also import food, all sorts of consumer goods, and capital. This will make it ever more difficult for them to continue importing increasing amounts of oil, in order to increase their per capita consumption, given the dwindling value of their exports (based on primary products and manufactures with low technological content). Energy shortage could then become a structural crisis and turn many of these countries definitively into non-viable national economies. Rural populations will continue to depend on firewood as domestic fuel, aggravating the deforestation process and soil erosion, and deepening the lack of food security. Without adequate energy supplies, these countries cannot provide water, sanitation and transport for their expanding cities. Even less will they be able to attract foreign companies to increase the technological content of their exports and improve their archaic position in the global economy.

The, scarcity of petroleum and its rising cost will turn the already notable social inequality into a gaping abyss, as only a small sector of the society will have the necessary personal income to buy enough energy to maintain the consumption patterns which

it copies from the rich societies of the North. The majority of the population, on the other hand, who live on less than a dollar a day or with very low incomes, will not be able to keep pace with increased consumption of commercial energy, and their material living conditions will drop even further below the standard.

The countries that currently have the lowest energy consumption per capita in the world and a growing urban population, such as El Salvador, India, Kenya, Morocco, Pakistan and Peru, must try to turn this energy shortage around. Otherwise they will condemn their populations to hereditary poverty and become non-viable countries. They urgently need to establish effective national policies for energy security. This means that their populations must be assured access to a large enough quantity of commercial energy to satisfy at least the basic necessities in food, housing, communications and drinking water.

To reach energy security, it is essential to save energy and to maximize the exploration for and exploitation of the renewable and non-renewable energy sources in the country. Another prerequisite is to relinquish the dream of imitating the consumer society of the wealthy industrialized countries. In the long run, the national energy security issue will act as the catalyst that produces another type of society, one that no one can foresee. It is clear, however, that it will be contrary to the paradigm of the consumer society, which neither poor nor rich are willing to abandon yet in any country in the world.

Although it is understandable that no one in the poor countries wants to relinquish the dream of the rich countries' consumer society, it must be admitted that nothing is more irrational than to try to globalize this ideal, based as it is on the intensive use of a highly polluting source of energy: fossil fuels. The poor societies would have to reach a per capita consumption of fossil fuels that approached the North American or the European rate. Try to imagine a great part of the African continent, Asia including mega-countries such as China, India and Indonesia, and all of Latin America, that is, three quarters of the world's population, consuming between 4 and 7 tons of petroleum per capita per year and expelling into the atmosphere millions of tons of greenhouse

gases, to add to those accumulated since the Industrial Revolution. The atmosphere would be still more loaded than today with carbon dioxide, methane, nitric oxide and chlorofluorocarbons; the planet's temperature would continue to rise. The effects of this would be felt in the form of still more severe climatic changes than those at present, producing more droughts and torrential rains that would adversely affect agricultural production. In addition, the damage to the polar ice caps would raise sea levels, flood the coastal countries and obliterate many islands.

In view of these threats of climate change, the renewable energy solution is still extremely expensive for underdeveloped countries. In the southern hemisphere where most underdeveloped countries are located, solar power will eclipse all other available types of renewable energy. Nonetheless, the possibilities of using this unlimited source of energy to replace coal, oil and gas are still far off, not only because solar power is expensive, but also because difficult technological problems have to be solved in order to store it at night and on cloudy days.

Today, the global California paradigm of the consumer society, riding on the intensive use of a polluting source of energy which is not easy to replace, has presented our civilization with one of the most serious dilemmas ever experienced in the pursuit of material progress: a low per capita consumption of fossil fuels leads to the economic non-viability of the nation, but a high consumption per capita by all the nations would lead to the virtual non-viability of civilization. For the first time, the energy dilemma unequivocally places environmental issues at the centre of the socio-political destiny, not only of individual countries, but of the entire human race.

Population stability

Every day the urban population in the poor countries swells by some 150,000 people. By 2020, the population of the great majority of these countries will have more than doubled since 1960 levels, reaching a total of 6 billion people. Almost 70 per cent of them will be living in cities. More than five hundred cities with more than 1 million inhabitants each and some forty megalopolises that will have between 7 and 20 million people each will burgeon in the

so-called developing world. Kinshasa will reach 14 million, Lima will have 9 million, Manila 14 million, Cairo 14.5 million, Dhaka 18 million, Delhi 20 million, Karachi 17 million, and Shanghai 18 million.¹²

This urban explosion will require the backing of mega-economies with enormous capacities to produce foodstuffs, energy and water. Without these three resources, cities become veritable human nightmares and environmental time bombs. When London's population reached just 5 million or when New York's arrived at 7 million, behind each of those megalopolises was a powerful industrial development, which absorbed great quantities of labour, coupled with a huge national and international market. They were also backed by prosperous agricultural sectors and cheap and plentiful energy in the form of coal and oil. Lastly, the poor and the unemployed in those cities had the option of emigrating massively in search of their fortune, to the colonies or to the Far West.

In contrast, behind cities like Casablanca, La Paz, Luanda or Maputo and future megalopolises such as Cairo, Dhaka, Karachi, Lima or Manila there is no modern national industrial drive that exports and employs. Even less have any of them an agricultural sector that produces adequate quantities of food, or vast oil reserves. The underdeveloped megalopolis possesses only the inadequate resources derived from the country's barely processed exports. It depends on foreign food aid, suffers water shortages and has to import increasing amounts of oil and food.

The countries with the greatest urban growth in the world and also with the lowest world consumption of food and energy per capita are: Bangladesh, Bolivia, China, El Salvador, Ethiopia, Ghana, Guatemala, Haiti, Honduras, India, Kenya, Liberia, Morocco, Nicaragua, Pakistan, Peru, the Philippines, Rwanda, Sierra Leone and Tunisia. In this group, China, El Salvador, Ethiopia, Ghana, Haiti, India, Kenya, Morocco, Pakistan, Peru, Rwanda, plus Tanzania, Uganda and Zimbabwe, have in addition the lowest per capita consumption of water in the world.

With the exceptions of China and India, all these countries are caught in a trap consisting of technological backwardness, scarcely transformed exports, and low rates of productive foreign

investment; their growing urbanization increases dangerously the imbalance that these countries already have between the population and the vital resources of food, water and energy. In the near future, this imbalance will become still more acute, because of population growth. If this situation remains unchanged, the above-mentioned countries will remain among the poorest national societies on the planet. Many of them may be driven into economic non-viability.

The underdeveloped countries experiencing urban population explosion and with low per capita consumption of food, energy and water need their GNPs to grow steadily by an annual rate of at least 7 per cent during the next ten years if they are to catch up with the urban population explosion, create employment and attain food, energy and water security as well. However, it is estimated that the GNP of most of these countries, because of their dependence on primary exports and low-technology manufactures, will grow by only 3.5 to 4.5 per cent per year. When population growth is taken into account, this will be reduced to an actual annual GNP growth rate of between 1.5 and 2.8 per cent.

As recently as the 1970s, many strategists held that a large population was the symbol of a powerful nation. Maoist China defended this thesis in the seventies, denouncing birth control as a sinister imperialist plot. Later, reality forced the Chinese leadership to perform an about-face, towards a totalitarian demographic policy of one baby per family and compulsory sterilization. Brazil too was a defender of the 'large population' thesis. In the 1980s its political leaders claimed that with 200 million inhabitants in the year 2000, it would be assured of its credentials as a great power. In the end, overwhelmed by the growth of poverty in its great cities, Brazil embarked on a voluntary family planning policy.

Today nobody dares to equate a large population with national power. Nevertheless, there is still a trend to downplay the high growth of the urban population as a determining factor in poverty. In general, there is a lack of concern about population growth, based on the belief that many underdeveloped countries have fortunately begun what the demographers call 'demographic transition', which means a decline in fertility, making for a more equal

relation between births and deaths. A significant reduction in poverty based on this calculation is exaggerated, if account is taken that the demographic growth in the major cities of those countries will continue to be 150,000 inhabitants each day well into the twenty-first century. This is an environmentally and socially explosive rate of population growth.

Nevertheless, research carried out by the United Nations Population Fund has positively shown that a reduction in the size of the family contributes to lowering the infant mortality rate, and to improving education, health, nutrition and living standards in general. It is not pure chance that South Korea, Taiwan, Singapore, Chile, Argentina and Uruguay, which have the fewest poor inhabitants among the so-called developing countries, also have the lowest population growth rates.

Despite this evidence, there are no effective population policies in El Salvador, Kenya, Morocco, Pakistan, Peru, Sri Lanka, Zimbabwe and almost all the other countries that combine the world's highest rates of urban population growth with its lowest per capita consumption of food, energy and water. Commonly in these countries, predictions and discussions about the future behaviour of the economy and society fail to take into account the population factor. It would seem that there is no national awareness of the impossibility of satisfying the growing human needs resulting from an urban population explosion that is over 2.5 per cent per year – given these countries' current dependence on raw materials and low-technology exports. There is no perception either of the fact that the urban demographic explosion will produce a great supply of workers that modern technology cannot easily absorb.

Behind this rather indifferent attitude may lie traditional cultural values, and the belief that resources are infinite and that the relation between environment and population will not affect the future of the nation. Economic traditionalism, coupled with a religious fundamentalism that considers any population policy an attack on life, ultimately blocks actions of the civil society and of the state in favour of voluntary and democratic family planning. Traditionalism and fundamentalism preclude measures to promote gender equality and to allow the less favoured sectors of

the population access to the same methods that the most favoured sectors use to reduce their fertility.

The Pact for Survival

Today the California model of planetary urbanization and climate change is creating a clear world tendency towards a physical-social imbalance between the necessary water, food and energy supplies on one hand, and the explosive growth of the urban population in the underdeveloped countries on the other. To overcome this physical-social imbalance will be decisive for the survival of the countries of Latin America, Asia and Africa which today combine the world's lowest consumption per capita of food, water and energy with the world's highest urban population growth rates. These countries are today: Afghanistan, Algeria, Angola, Bangladesh, Bolivia, Burundi, Cameroon, China, Côte d'Ivoire, Democratic People's Republic of Korea, Democratic Republic of the Congo, Egypt, El Salvador, Ethiopia, Ghana, Guatemala, Haiti, Honduras, India, Jordan, Kenya, Liberia, Morocco, Mozambique, Nicaragua, Nigeria, Pakistan, Peru, the Philippines, Rwanda, Senegal, Sierra Leone, Somalia, Sri Lanka, Sudan, Tanzania, Tunisia, Uganda, Yemen, Zambia and Zimbabwe.

In the course of this century, all of these countries must reduce their urban demographic growth, while they increase their food production and their supplies of water and energy, if they are to prevent their cities from becoming veritable urban infernos. To achieve this goal, the urban population growth should be held to less than 1 per cent. Their inhabitants' daily calorie intake, which at present barely averages 2,000 calories per capita, should be augmented to nearly 3,000. Their low per capita energy consumption, at present below 600 kilograms of petroleum yearly, would have to double, as must their annual per capita water consumption – now less than 2,000 cubic litres.

To attain these essential goals will become even more difficult than it need be because the political classes of these countries do not realize that, since the start of the twenty-first century, their countries' growing physical-social imbalance – between their food, energy and

water supplies and their unfettered urban populations – constitutes a socio-political seismic fault, ready to unleash earthquakes leading to the cataclysm of national disintegration. The myth of development is so ingrained in the collective unconscious of the underdeveloped countries' political leaders that they believe in the feasibility of exploiting their natural resources and their cheap labour to achieve development, without giving a thought for the imbalance between the unbridled urban population growth and their countries' glaringly insufficient supplies of food, water and energy.

These leaders do not perceive the critical situation that their civilization is suffering due to the impasse between their adopted California urbanization model and the climate change it is engendering. Even less do these political leaders of the underdeveloped world and their accompanying technocracies see that their countries may become ungovernable chaotic entities (UCEs) due to the growing physical-social imbalance between the urban population explosion and the lack of secure and adequate sources of food, water and energy.

Neither national nor international technocracies seriously consider the danger of national economic inviability. They always talk about development, having lived for more than half a century under the myth of development spell, which assumes that all the underdeveloped countries will eventually become developed nations – prosperous consumer instant-gratification societies just like those in the industrialized countries.

Today, after more than fifty years of development theories and policies, the per capita income of more than ninety mistakenly called 'developing' countries has only grown by about 2.6 per cent. This is far below the growth rate considered necessary to escape from poverty. Within an underdeveloped world population of around 5 billion, 2.8 billion are barely surviving on an income of \$2–3 a day, and 1.3 billion cannot even feed themselves on their \$1 per day income; that is, they live in extreme poverty. This reality must be coupled with the new challenges arising from the physical-social imbalance between growing populations and their already inadequate supplies of water, food and energy. Faced with this crisis of our civilization, we must abandon the search for El Dorado, abandon the elusive

agenda of the wealth of nations for a more realistic search for the survival of nations. If urban life in the poor and undeveloped countries is to be prevented from turning into an inferno, and their nations are to be prevented from collapsing into UCEs, the urgent priorities now must be to stabilize urban population growth and to augment significantly their available water, food and energy supplies.

Fortunately, this physical-social imbalance is not identified with any particular ideology; therefore, it can feasibly be agreed upon as a Pact for Survival by all the political leaders of any poor country where urban population is increasing rapidly and alarming symptoms of food, water and energy scarcity are appearing. One fundamental condition for the Pact for Survival to succeed in the poor countries is the existence there of genuinely democratic regimes. The Pacts for Survival should emerge from a great national dialogue and from a broad democratic agreement among the government, the political parties, the business leaders, the academic community and the civil society in general. Dictatorships and other undemocratic forms of government will lead their countries inevitably into non-viability, since they permit neither the dialogue nor the concerted agreement among all the country's leaders that are indispensable for meeting the difficult challenges of the twenty-first century. In fact, behind a lack of development lies a history of authoritarianism, corruption and exploitation which have prevented countries from escaping technological backwardness, cheap labour, and exports with little value-added.

The Pacts for Survival should not only be established through democratic dialogue and agreement, but also function permanently in that manner. Only through the constant exercise of these methods will the Pacts be able to meet the challenges that the market and the technological revolution will pose to countries infected with the viruses of non-viability, technological backwardness, export of primary products and, now, the physical-social imbalance caused by our civilization's crisis.

To achieve these Pacts for Survival will be doubly difficult because the greater part of the political establishment and of the general population in the underdeveloped countries is unaware

that their countries are infected with the virus of non-viability, resulting from the physical-social imbalance that has brought our urban civilization to a crisis. They do not realize either that the technological revolution has applied the Darwinian process of natural selection. They do not know that the urban demographic explosion in their countries is leading them into a collision with the modern technologies that reduce the labour force and the use of natural resources. They believe that their countries are wealthy because of their natural resources and competitive due to their cheap labour and that with these two advantages they will attain development. They do not see that with their national technological backwardness and the low prices paid for their untransformed raw material exports, they will be unable to satisfy the basic needs of an unemployed population that crowds into their cities. The uninformed political leaders, enmeshed in their personal ambitions and focused on the short term, are not aware that the countries they are trying to govern are slipping into non-viability, almost imperceptibly, every day.

By 2050, the planet will have 10 billion inhabitants, most of them city-dwellers. If by that date we have not changed the pattern of our energy use or of our consumption of food and water, the planet will be a hostile place for human beings. In any event, if we fail to adapt and our species disappears one day, cosmologically nothing will happen. The earth will continue to orbit the sun, carrying various millions of animal and plant species which will have outlived humankind, because this is not our planet's crisis but our own.

Notes

I The Twilight of the Nation-State

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4. See Robert H. Jackson, *Quasi States, International Relations and the Third World* (New York: Cambridge University Press, 1990).
5. Kennedy, p. 126.
6. See R. O. Keohane and Joseph S. Nye, Jr, *Transnational Relations and World Politics* (Cambridge, MA: Harvard University Press, 1966), pp. ix–xxix.
7. Susan Strange, *Casino Capitalism* (Oxford: Basil Blackwell, 1986), pp. 1–24.
8. United Nations, *Global Outlook 2000* (New York: UN Publications, 1990), p. 139.
9. *Ibid.*, p. 150.
10. *Ibid.*, p. 155.
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2 Global Empowerment and National Impoverishment

1. United Nations Conference on Trade and Development, *World Investment Report 2007* (New York: United Nations, 2007), p. 3.
2. *Ibid.*, p. 24.
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4. See the speech and proposal of Peru to the Second Meeting of the Preparatory Commission for the United Nations Conference on Environment and Development, Geneva, 1992.
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6. Among the critics are professors of economics at Cambridge University Ha-Joon Chang and Robert Rowthorn, Nobel Prize winners in economics John Tobin and Maurice Allais, the professor of economics at Stanford University Paul Krugman, and professor of economics at London and Manchester universities Paul Ormerod. Criticism has also come from Wall Street investment bankers Felix Rohatyn, George Soros and Warren Buffet, the *New York Review of Books* (April 1996), Oxfam, the Ecumenical Council of Churches, the Latin American Episcopate, the United Nations Development Programme and UNICEF.
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8. United Nations, *World Investment Report 2007*, pp. 21–3.

3 International Darwinism

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6. Comparative studies by the author on demographic trends, Human Development Reports 2000–08.
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8. *Ibid.*

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1. Declaration on the Right to Development, Resolution 41/128 of the United Nations General Assembly, 1976.
2. Comparative studies by the author on official aid by recipient country, Human Development Reports 2000–08.
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4. *Ibid.*
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2. Claude Julien, 'Le Siècle des Extrêmes. Leçons d'Histoire' (The Century of Extremes: Lessons of History), *Le Monde Diplomatique*, *Manière de Voir*, 26 May 1995.
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4. Oswaldo de Rivero, 'United Nations: A Peacemaker without a Sword', *Geneva Post*, May 1995.
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