

## 21 CRITICAL QUESTIONS FOR THE 21<sup>st</sup> CENTURY

### 1. Economic growth is the basis of development

Economic growth continues in the world, but it is both precarious and unfair. Its benefits regard ever fewer people and marginalize even more. Hundreds of millions live at a higher material standard of living, but thousands of millions are pressed into abject poverty, living in shantytowns and urban ghettos in the shadows of ostentatious affluence. The richest 20 percent earn 90 times the income of the poorest 20 percent, consume 11 times as much energy, eat 11 times as much meat, have 49 times the number of telephones, and own 145 times the number of cars. The net worth of 500 billionaires equals the net worth of half the world population. This is not only unjust and indefensible—it is highly explosive. The absolute deprivation of over one billion people and the relative poverty of two-thirds of the world's population is an arbitrary condition; one cannot ascribe the blame for it to a finite planet. If access to the Earth's physical and biological resources were evenly distributed, all people in the world could live at a decent material standard.

### 2. Food supplies are inequitably shared

If food supplies were equitably shared, every person would receive about a hundred calories more than are required to replace the 1,800 to 3,000 calories he or she expends each day (the healthy diet calls for an intake of about 2,600 calories). But people in the rich countries of North America, Western Europe, and Japan obtain not 100 percent, but 140 percent of their 2,600 caloric requirement, whereas people in the poorest countries, such as Madagascar, Guyana, and Laos, are limited to 70 percent. Americans spend only 10 percent of their income on food, and still buy so much that they throw away 15 percent of it. Haitians, some 600 miles to the south, as well as three-fourths of all Africans, spend more than half their income on food and are undernourished. Surveys by the U.N. Development Program and the Food and Agriculture Organization indicate that 87 countries today neither produce sufficient food to sustain their population nor have the money to import the missing amount from elsewhere.

### 3. There is a shortage in energy

The world's pattern of energy consumption is just as disparate. The average amount of commercial electrical energy consumed by Africans is half a kilowatt-hour (kWh) per person. The corresponding average for Asians and Latin Americans is 2 to 3 kWh, and Americans, Europeans, Australians and Japanese use up to 8 kWh. With 4.1 percent of the world population, the United States alone consumes 25 percent of the world's energy production, much of it wastefully—for example, by heating homes with inefficient gas-powered heaters or electric radiators in the winter, leaving air conditioners on for extended periods in the summer, and using gas-guzzling vans, pickup trucks, and sports utility vehicles for everyday transportation. The average American burns five tons of fossil fuel per year—in contrast with the 0.8 tons of the average Chinese and the somewhat more modest 2.9 tons of the average German.

In the course of the 80-plus years of expected life span of a child born to a middle-class family in the United States, he or she will consume 800,000 kilowatts of electrical energy. In



addition, he or she will also consume 2,500,000 liters of water; 21,000 tons of gasoline; 220,000 kilos of steel; the wood of 1,000 trees, and will generate 60 tons of municipal waste. At these rates, the average American child will produce in his or her lifetime twice the environmental load of a Swedish child, three times that of an Italian, 13 times that of a Brazilian, 35 times that of an Indian, and 280 times that of a Haitian.

#### 4. Economic growth increases poverty

Even if global economic growth were to continue beyond the next few years (which, as we shall see, is questionable), it would likely be highly concentrated, accruing mainly to rich countries, rich corporations, and persons in positions of power. Even on a global growth-scenario, by the middle of the twenty-first century some 90 percent of the world's people would live in the poor countries, and the great majority of them would be themselves poor. If today's highly unequal distribution of wealth is not rectified, it is difficult to see how they could satisfy even their most basic needs. As Gandhi said, although the world has enough to provide for all people's need, it does not have enough to cater to even one person's greed. In the rich countries of the world, greed is still dominant. In the name of the free market, many people use not only what they need, but all they can get. Affluent people use 80 percent of the world's energy and raw materials and contribute the lion's share of its pollution. The average human needs five liters of water a day for drinking and cooking and 25 liters for personal hygiene, but the average American uses 350 liters a day—80 liters just for flushing the toilet—and the average European and Japanese, 130 to 150 liters. At the same time, many Africans walk two miles to get safe water, if indeed they can get any; 48 percent of them lack access to water that is safe for drinking and cooking.

#### 5. We eat the World

Greed is also evident in the way people eat. The average Englishman each month consumes six bags of chips, six chocolate bars, six bags of candy, three sandwiches, two pies, two burgers, a donut, and a kebab while sitting behind the wheel. On an annual basis, Americans, worried about obesity, spend 30 times more trying to slim down than the U.N.'s entire budget for famine relief. Affluent people consume such quantities of red meat that the world's entire grain harvest would not be enough to feed all the cattle that would be needed if the rest of the world were to adopt a similar diet.

World meat consumption has increased more than fivefold in the last 50 years. More and more people demand meat, yet the meat they get is not the safe meat one's grandmother bought in 1950. It may contain progesterone, testosterone, avoparcin, and clenbuterol—chemicals farmers pump into cattle to fatten them up and keep them healthy. Anabolic steroids, growth hormones, and beta-agonists turn fat into muscle; antibiotics stimulate growth and protect sedentary animals against diseases they would not get if they were kept in more natural conditions.

#### 6 (7). Is meat necessary the basis for catering?

A diet heavy on meat is not only unhealthy, it is also immoral: It indulges a personal fancy at the expense of depleting resources essential to feed the entire human population. Red meat



comes from cattle, and cattle must be fed. The grain fed to cattle is subtracted from that available for human consumption. If cows returned equivalent nutrition in the form of meat, their feed would not be wasted. But the calorific energy provided by beef is only one-seventh of the energy of the feed. This means that in the process of converting grain into beef, cows “waste” six-sevenths of the nutritional value of their feed. The proportion is somewhat more favorable in poultry, but the average chicken still uses two-thirds of the nutritional value of the feed it consumes.

It is true that land too poor for crops can be used to graze livestock. Nonetheless, there is simply not enough grain to feed the animals that would be needed to supply meat for the tables of all the people in the world. The giant herds of cattle and endless farms of poultry would require more grain than the total output of the planet’s agricultural lands—according to some calculations, about twice as much. Given the amount of land available for farming and the known and presently used agricultural methods, doubling today’s grain production would call for economically prohibitive investments. It takes the yield of 190 square meters of land and no less than 105,000 liters of water to produce one kilogram of grain-fed feedlot beef. But to produce one kilogram of soybeans takes only 16 square meters of land and 9,000 liters of water. The same amount of land that produces one kilogram of beef could produce nearly 12 kilograms of soybeans or 8.6 kilograms of corn. And the farmers would save 96,000 liters of water by choosing soybeans and 92,500 liters by planting corn. The rational and moral solution is to phase out the mass production of cattle and poultry—not by massive slaughter but by breeding fewer animals and breeding them healthier.

The nutritive needs of the entire human population could be satisfied by eating more vegetables and grain and less meat, using first and foremost the produce of one’s own country, region, and environment. Grain- and plant-based food self-reliance provides a healthier diet, and it allows the world’s economically exploitable agricultural lands to be worked to satisfy the needs of the whole human family.

#### 7. (10). What examples should we give to developing countries?

Well-to-do people overuse the planet’s resources, and poor people misuse them. Of the 6.5 billion people on the planet, the two billion “developed” consume and waste more than their share, while the 2.5 billion “underdeveloped” misuse what little is left to them. To make things worse, many of the two billion in the middle, the “developing” masses, hope to adopt the life ways and consumption patterns of the two billion “developed.” But this ambition is more than the resources and ecosystems of the planet can fulfill.

In China, as throughout the developing world, the lifestyles of the affluent are admired and emulated. Because the two billion “developed” drive a private car to work, shopping, and recreation—even in cities where public transport is available—the two billion “developing” hope to own and use cars for much the same reasons and the same purposes. A good portion of the 1.3 billion Chinese are on the way to realizing this ambition. In the center of the “miracle city” Shenzhen, there are hardly any bicycles left, but private cars, including luxury models, abound— together with traffic jams and air pollution. Much the same emulation occurs in regard to eating habits. Because people in the industrialized countries have a preference for steaks and hamburgers, people in China and other developing countries aspire to the same kind of diet. Hamburger stands and fast-food restaurants are springing up



throughout the poor countries and regions of the South. Even Eskimos in the North drink Coke and eat hamburgers.

Suppose, then, that the two billion “developed” decided to live in a more responsible way. Would that make a difference to the aspirations of the two billion hopefully “developing,” and the condition of the 2.5 billion almost hopelessly “underdeveloped”? It very likely would. Simpler lifestyles and more responsible choices would free a significant portion of the planet’s resources for consumption by all the people who inhabit it. Given the rapid erosion of many agricultural lands and the coming water squeeze, this difference may be crucial.

#### 8 (11). Consumer goods instead of valuable food and healthy environment

What goes for meat eating also goes for smoking. The fact that smoking is dangerous to one’s own health and the health of others can be read on every packet of cigarettes, but it is not generally known that growing tobacco for export robs millions of poor people of fertile land on which they could grow cereals and vegetables. As long as there is a market for tobacco exports, agribusinesses and profit-hungry farmers will plant tobacco instead of wheat, corn, or soy. And the market for tobacco exports will remain attractive as long as large numbers of people continue to smoke. Tobacco, together with other cash crops such as coffee and tea, commands a considerable portion of the world’s fertile lands, yet such produce does not respond to a real necessity.

Reducing the demand for tobacco—and for coffee, tea, and similar cash crops (not to mention opium, heroin, and other psychedelic plants)—would mean a healthier life for all who can afford them (or are hooked on them) and at the same time a chance for adequate nourishment for the poor. A better pattern of land use would permit feeding eight or even ten billion people without conquering new land and engaging in risky experiments with genetically manipulated crop varieties. But with today’s consumption patterns, the world’s agricultural lands can barely feed the 6.5 billion people living today. It takes only one acre of productive land to provide the average Indian’s agriculture-related needs, but satisfying the needs of a typical American takes fully 12 acres. Making 12 acres of productive land available to provide food for 6.5 billion people would require two more planets the size of Earth.

#### 9 (9). The increased economic growth of the Third World is a new danger

Regarding sustainability a particularly striking example is the consumption curve in China. Overall, the consumption of grain and meat as well as of coal and steel is higher today in China than in the United States. It cannot keep growing without disastrous consequences for the planet. According to calculations by the Earth Policy Institute, if China’s consumption were to rise to the American level on a per person basis, the demand would be more than the earth’s resources could fulfill. For example, if Chinese people were to consume the 935 kilograms of meat per person that Americans consume annually (the Chinese now consume 291 kilograms), by 2031 they would require two-thirds of the current world grain production (181 million tons) to feed their herds. If they were to burn coal at the present U.S. level, they would use more coal in a single year than today’s entire annual coal production. And if Chinese people were to use oil at the same rate as Americans now do, they would use more oil than the world is ever likely to produce: 2.8 billion tons a year, compared with the current world production which has already peaked at 2.5 billion.



10. (12). What should we use for transportation instead of our cars?

We should also consider the use—or overuse—of the private automobile. According to a World Bank estimate, by the year 2010 the population of motor vehicles will swell to one billion. Unless there is a rapid shift to new fuel technologies—possible, but difficult to achieve worldwide—doubling the current motor vehicle pool will double the level of smog precursors and greenhouse gases. Cars and trucks will choke the streets of third-world cities and the transportation arteries of developing regions. The current form and level of motor vehicle use is not a necessity in either the industrialized or the developing world. For goods transport, rails and rivers could be more effectively used, and for city dwellers public transportation could be pressed into wide-scale service, reducing the number of private vehicles.

We know that the urban sprawl created by the widespread use of private automobiles is undesirable, that traffic jams are frustrating and counterproductive, and that the gasoline-powered internal combustion engine uses up finite resources and contributes to air pollution and global warming. We also know that there are perfectly good alternatives to the standard automobile: cars running on natural gas or liquid hydrogen, to mention two. Even though these technologies are becoming more widely known, and more of the technologies for their economic production are being developed, the bulk of the consumer population still demands conventionally powered cars. As long as the demand keeps up, industries will not introduce the available alternative technologies, and cities and states will not create cleaner and more efficient public transportation systems.

11. (14). The fate of our children

Stresses within human communities are nearing a critical point: Traditional social structures are breaking down. This is partially, but not entirely, the consequence of the explosive growth of population. The unsustainability of social conditions in today's world cannot, however, be entirely ascribed to imbalanced patterns of population growth. Family structures are coming apart. In industrialized countries, to raise children in a nurturing environment is becoming more difficult; the rate for first marriages ending in divorce in the United States is 50 percent, and about 40 percent of children grow up in single-parent families for at least part of their childhood. A growing number of men and women find more satisfaction and companionship at work than at home. After children have “flown the nest,” it is becoming usual for couples to seek fulfillment with other partners rather than restructuring the family relationship in a childless home. In all parts of the world, families eat meals together less and less frequently, and when they do, the TV is likely to be the center of attention. Children's media exposure to TV, video games, and “adult” themes—a euphemism for violent and sexually provocative fare—is increasing. Exposure to such imagery, researchers find, connects with violent and sexually exploitive behavior. Teens face the peer challenge of “freer” sex, where loose “hooking up” for one-night stands is coming to be seen as normal, and building deep emotional relationships with sexual partners is considered out of date.

Many of the functions of family life are taken over by outside interest groups. Child rearing is increasingly entrusted to kindergartens and company or community day-care centers. Leisure-time activities are dominated by the results of the marketing and public-relations efforts of



commercial enterprises, and the provision of daily nourishment is shifting from the family kitchen to supermarkets, prepared food industries, and fast-food chains.

In developing countries, the exigencies of economic survival are destroying the traditional extended family. As women are obliged to leave the home in search of work, poverty breaks apart even the nuclear family. Women are extensively exploited, given menial jobs for low pay. Children fare even worse. According to the International Labour Office, today 50 million children worldwide (mostly in Africa, Asia, and Latin America) are working. They are employed for a pittance in factories, mines, and on the land, and many are forced to venture into the hazards of life on the street as “self-employed vendors” or just plain beggars.

An even more deplorable consequence of family poverty is the letting-go, and sometimes the outright selling, of children into prostitution. UNICEF names this “one of the most abusive, exploitative and hazardous forms of child labor.” In Asia alone, one million children are believed to work as juvenile prostitutes, exploited by the highly profitable pedophilia industry, serviced by international sex-tourism.

## 12. (16). Our ecological footprint

Quantitative indices have been developed to calculate the level of humanity’s impact on nature. One such index is the ecological footprint: the area of land required to support a human community. If the footprint of a settlement is larger than the area of that settlement, the settlement is not independently sustainable. Cities are intrinsically unsustainable, because few of the natural resources used by their inhabitants come from within their borders; most come from hinterlands and catchments in regard to food, water, and other resources. Cities also depend on hinterlands for the disposal of wastes. But entire regions and countries could well be sustainable—their ecological footprint need not extend beyond their boundaries.

A path breaking survey commissioned by the Earth Council of Costa Rica examined the ecological footprints of 52 countries; 42 of them had footprints that exceeded their territory. The optimum sustainable level of agricultural resource production—where the loss of topsoil is reduced and ultimately halted—is 1.7 hectares (2.47 acres). But the average per capita footprint of the countries examined came to 2.8 hectares (6.9 acres). If this average load were reached by the more than 190 countries of the world, the ecological footprint of the human population would be larger than the whole of the biosphere. The only reason this is not the case today is because people in the poor countries have footprints of far less than 1.7 hectares—half a hectare (about one acre) per person in Bangladesh, for example, contrasting with 10.3 hectares (25 acres) in the United States.

## 13. (18). We waste our environment

Waste disposal contributes to the nature-impairment process. We discard much more than our household wastes into the environment. We inject an estimated 100,000 chemical compounds into the land, rivers, and seas; dump millions of tons of sludge and solid waste into the oceans; release billions of tons of CO<sub>2</sub> into the air; and increase the level of radioactivity in water, land, and air. The wastes discarded into the environment do not vanish; they come back to plague those who produce them as well as other communities near and far. Refuse dumped



into the sea returns to poison marine life and infest coastal regions. The smoke rising from homesteads and factories does not dissolve and disappear: The CO<sub>2</sub> released remains in the atmosphere, affecting the world's weather. In the rich countries, some *one million* chemicals produced by industry are bubbling through the groundwater systems; in poor countries, rivers and lakes have up to a hundred times the accepted level of pollutants. Until recently, the water in Malaysia's Klang River had enough mercury to function as a pesticide. There has been a massive increase in allergies in both urban and rural environments. The appellations of toxic environmental effects constitute a whole new vocabulary: There is MCS (multiple chemical sensitivity), wood preservative syndrome, solvent intolerance, chemically associated immune dysfunction, clinical ecology syndrome, chronic fatigue syndrome, fibromyalgia, and sick building syndrome, among others.

#### 14. (20). Decreasing areas of croplands on Earth

With the exception of sandy deserts and high mountains, the surface of the continents is covered with soil, but soil of a quality suitable for agriculture is relatively scarce. The U.N.'s Food and Agriculture Organization estimates that there are 3,031 million hectares (about 7,490 million acres) of high-quality cropland now available, 71 percent of which is in the developing world. This is a precious resource, desperately needed to supply the food and agricultural needs of a growing human population. Yet pressures of human activity produce soil erosion, destructuring, compaction, impoverishment, excessive desiccation, accumulation of toxic salts, and leaching of nutritious elements, and inorganic and organic pollution due to urban and industrial wastes. Soil degradation feeds on itself: as scientists at England's Cranfield University discovered, soils in the UK are losing the carbon they contain at an accelerated rate. As temperatures rise, the decomposition of organic matter speeds up, and this causes more warming and hence more decomposition. Lands degraded to desert-like conditions reduce the world's food and agricultural production for centuries; it takes nature 100 to 400 years to create ten millimeters of productive topsoil. To build a topsoil layer of 30 centimeters takes anywhere from 3,000 to 12,000 years. In his authoritative *World Agriculture and Environment*, Jason Clay noted, "There is a steady increase in the consumption of food and fiber produced by agriculture, while at the same time there is a steady decline in the quality and productivity of soil around the world. The two trends are on a collision course."

In some parts of the world, the scarcity and degradation of topsoil augurs major food shortages. China, for example, has a population that is five times that of the United States, but has only one-tenth as much cultivated land. It is feeding 24 percent of the world's population on 7 percent of the world's agricultural land. China manages this feat by employing an enormous agricultural labor force—estimated at 40 percent of the world total—and pumping vast quantities of chemical fertilizers and other chemicals into the soil. This has serious consequences. Of China's 100 million hectares of cultivated land, one-tenth is highly polluted, one-third is suffering from water loss and soil erosion, one-fifteenth is salinized, and nearly 4 percent is in the process of turning into a desert. Due to urban sprawl and the construction of roads and factories, 15 million hectares of China's cultivated land have been turned to nonagricultural use—an area equal to the agricultural lands of France and Italy combined.



Worldwide, humanity is losing 5 to 7 million hectares of cropland per year. If this process continues, some 300 million hectares will be lost by mid-century, leaving 2.7 billion hectares to support over 9 billion people. This would yield an average of 0.3 hectares (or 0.74 acres) per person, the subsistence level of food production for the entire human population.

#### 15.(21). The atmosphere of Earth is damaged

The human impact on the atmosphere has reduced the atmosphere's oxygen content and has increased the share of other elements. The increase in atmospheric greenhouse gases such as carbon dioxide is particularly important. Two hundred years of burning fossil fuels and cutting down large tracts of forest have increased the atmosphere's carbon dioxide content from about 280 parts per million to more than 350 parts per million.

Changes in the chemical composition of the atmosphere trigger alterations in the climate. Climate change has already reached the danger point. A report published in 2005 by the Institute for Public Policy Research in the United Kingdom, the Center for American Progress in the United States, and the Australia Institute specified the point of no return: the chaos point beyond which global temperature change has massively disastrous consequences. This is a rise in the average global temperature two degrees Celsius above the average in the year 1750. This may seem a small change to produce such vast consequences, but climate models indicate that it could produce widespread harvest failures, water shortages, increased spread of diseases, the rise of the sea level, and the die-out of major forests. The level of the sea could rise by as much as 21 centimeters by the year 2050, creating catastrophic conditions for nearly 80 million people in coastal regions. The planet-wide rise of the sea level would dwarf the impact of the tsunami that struck South and Southeast Asia in December 2004. It would create millions of refugees in China, India, Indonesia, Vietnam, Bangladesh, and the Philippines, who would migrate inland and exacerbate conditions in the already overcrowded interiors.

Global temperatures have now risen 0.8 degrees Celsius, and the warming trend is accelerating; in December 2005 climate experts announced that a one-percent rise may occur within ten years. Temperatures in the western Arctic are at a 400-year high; since 1940, average temperatures in the Arctic region have risen by 2.5 degrees on the Celsius scale and some 42 percent of the icecap has already melted. The progressive reduction of the Arctic icecap alters the world's weather. It threatens first of all Europe, as the volume of freshwater streaming into the North Atlantic would end by deflecting the Gulf Stream. That would flood Western Europe with frigid waters, creating winters of Siberian cold over England and much of the continent.

The influx of gases from human activity is paralleled by the growing influx of gases from nature, *and this influx is now largely due to human activity*. In Siberia, an area of permafrost spanning a million square kilometers, the size of France and Germany combined, has started to melt for the first time since it formed at the end of the last ice age 11,000 years ago. Russian researchers found that what was until recently a barren expanse of frozen peat is turning into a broken landscape of mud and lakes, some more than a kilometer across. The area, the world's largest frozen peat bog, has been producing methane since it formed at the end of the last ice age, but most of the gas has been trapped under the permafrost. The west



Siberian peat bog may hold as much as 70 billion tons of methane, a quarter of all of the methane stored in the ground around the world. Calculations show that the melting peat bog could release around 700 million tons of carbon into the atmosphere each year, about the same amount that is released annually from all of the world's wetlands and agriculture. This would double atmospheric levels of the gas, leading to a ten percent to 25 percent increase in global warming.

While Europe is threatened with a colder climate, most of the planet is subjected to rising temperatures. If nothing decisive is done to deflect the warming trend, the damage to the Amazon rainforest, already apparent, will become irreversible. There will be widespread destruction of coral reefs, the alpine flora of Europe and Australia will disappear, and there will be severe losses of China's broad-leaved forests. The climate change triggered by higher temperatures will play havoc with the production of agricultural lands. Although in cold regions with short growing seasons it could increase yields, it will decrease harvests in tropical and subtropical areas where crops are already growing near the limit of their heat tolerance. These effects are not precisely foreseeable: Global warming is not a gradual and distributed process but a differential warming and cooling effect over different parts of the globe. But in their totality, these alterations in the climate threaten the survival of untold living species, as well as the food supply of human communities the world over.

#### 16.(28). Technology is the answer

Underlying our obsolete but persistent beliefs are a number of flawed conceptions like *technology is the answer*: whatever the problem, technology either can, or can be developed to, offer a solution.

Technology can be powerful and sophisticated, but it remains a tool: Its utility depends on how it is used. Even the best technology is a two-edged sword. Nuclear reactors produce an almost unlimited supply of energy, but their waste products, as well as decommissioning, pose unsolved problems. Genetic engineering can create virus-resistant and protein-rich plants, improved breeds of animals, vast supplies of animal proteins, and microorganisms capable of producing proteins and hormones and improving photosynthesis; but it can also produce lethal biological weapons and pathogenic microorganisms, destroy the diversity and the balance of nature, and create abnormal, and abnormally aggressive, insects and animals.

Information technologies can create a globally interacting yet locally diverse civilization, enabling all people to be linked whatever their citizenship, culture, and ethnic origin. But when information networks are dominated by the power groups that brought them into being, they serve only the narrow interests of a small minority and marginalize the rest. In the commercialized mode, the Internet, television, and electronic and print media cater to those who can enter the marketplace, and disregard the rest. They also serve criminal elements, propagating pornography and crime.

#### 17. (31). The future is none of our business



Underlying our obsolete but persistent beliefs are a number of flawed conceptions like *the future is none of our business*: why should we worry about the good of the next generation? Every generation has to look after itself.

Living without conscious forward planning—though it may have been sufficient in days of heady growth, when each new generation could take care of itself—is not a responsible option at a time when the decisions we make today have a profound impact on the well-being of the next generations.

#### 18.(34). Life is a struggle where only the fittest survive

Some beliefs have become particularly dangerous. They include the following: *Life is a struggle where only the fittest survive*. This belief dates from the nineteenth century, a consequence of the popular understanding of Darwin's theory of natural selection. This concept claims that in society, as in nature, "the fittest survive," meaning that, if we want to survive, we have to be fit for the existential struggle—fitter than others around us. In a societal context, fitness is not determined by genes, but is said to be a personal and cultural trait, such as smartness, daring, ambition, and the political and financial means to put them to work.

Transposing nineteenth-century Darwinism into the sphere of society is dangerous, as the "social Darwinism" adopted by Hitler's Nazi ideology has shown. It justified the conquest of territories in the name of creating more Lebensraum (living space) and the subjugation of other peoples in the name of racial fitness and purity. In our day, the consequences of social Darwinism go beyond armed aggression to the more subtle but in some ways equally merciless struggle of competitors in the marketplace. No-holds-barred competition produces widening gaps between rich and poor and concentrates wealth and power in the hands of corporate managers and international financiers. It relegates states and entire populations to the role of clients and consumers and, if they are poor, dismisses them as marginal factors in the equations that determine success in the global marketplace.

#### 19.(35). The market distributes benefits

Some beliefs have become particularly dangerous. They include the following: *The market distributes benefits*. This tenet is directly related to the belief that in the existential struggle only the fittest survive; indeed, it serves as its justification. Unlike in nature, where the consequence of "fitness" is the spread and dominance of a species and the extinction or marginalization of others, in society there is said to be a mechanism that distributes the benefits instead of having them accrue uniquely to the "fit." This is the market, governed by what Adam Smith called the "invisible hand." It acts equitably: if I do well for myself, I benefit not only me, my family, and my company, but also my community. In the economy as a whole, wealth "trickles down" from the rich to the poor. A rising tide, said John Kennedy, lifts all boats.

The myth of the market is comforting; not surprisingly, it is often cited by those who benefit from it. Unfortunately, it leaves out of account a provision already noted by the classical economists: The market distributes benefits only under conditions of near-perfect



competition, where the playing field is level and all players have a more or less equal number of chips. In the real world, the playing field is never level and the distribution of wealth is highly skewed.

Nobody has, or ever had, firsthand experience of the market working equitably for all. In today's world, the market favors the rich at the expense of the poor. Today the wealth of a few hundred billionaires equals the revenue of half the world's peoples, while the poorest 40 percent of humankind is left with three percent of the global wealth.

## 20. (37). The more money you have, the happier you are

Some beliefs have become particularly dangerous. They include the following:

*The more money you have, the happier you are.* The great majority of people in the industrialized world believe that there is a connection between having money and feeling good. Gallup opinion surveys found that three in four young Americans entering college consider it "essential" or "very important" that they become very well off financially. Asked what makes for a good life, a 1996 Roper poll found that 63 percent of Americans say "a lot of money."

Yet the belief about the connection between wealth and happiness is not borne out by people's experience. If this belief were true, the citizens of rich nations should be happier than those of poor nations. This is not the case. A survey of 43 countries by Ronald Inglehart indicates that once a country reaches the level of about \$10,000 GNP per person, increases in the nation's wealth do not produce increases in its inhabitants' sense of well-being. Bulgarians are neither prosperous nor satisfied and Scandinavians and West Germans are more so, but the Irish claim to be just as satisfied, although they have less than half the GNP of the Germans and the Scandinavians. Moreover, rich individuals should be happier than the poor, and the super-rich should be happiest of all. But a *Forbes* survey of the 100 wealthiest Americans showed that millionaires experience only slightly greater happiness than the average individual.

Since 1957, GNP in the United States has more than doubled, but the average level of happiness has declined: those who report being "very happy" are only 32 percent of the population. At the same time the divorce rate doubled, the teen suicide rate more than doubled, violent crime tripled, and more people than ever say they are depressed.

Social psychologist David Myers called this the syndrome of soaring wealth and shrinking spirit. More than ever, he noted, we have big houses and broken homes, high income and low morale, secured rights and diminished civility. We excel at making a living but fail at making a life.

It appears that money can buy many things but not happiness and well-being. It can buy sex but not love, attention but not caring, information but not wisdom. Although money is needed to cover essential human needs, beyond that there are other factors that make for happiness and the good life—love and caring within the family, intimate friendships and close emotional ties with others in the workplace and the community, a sense of belonging to one's country and culture, work that is meaningful and productive, contact with nature, and leisure activities that engage our skills and interests and give scope to our creativity.



## 21.(40). The need for a new ethics

How could a universal morality arise and spread in society? Traditionally, setting the norms of morality was the task of the religions. The Ten Commandments of Jews and Christians, the Provisions for the Faithful in Islam, and the Rules of Right Livelihood of the Buddhists are examples. Today the dominance of science has reduced the power of religious doctrines to regulate human behavior, and many people look to science for practical guidance. Yet classical science could not come up with principles that would provide a basis for universal morality. Saint-Simon in the late 1700s, Auguste Comte in the early 1800s, and Émile Durkheim in the late 1800s and early 1900s tried to develop “positive” scientific observation- and experiment-based principles for a meaningful and publicly acceptable ethic. But this endeavor was so foreign to classical science’s commitment to value neutrality that it was not taken up by the great majority of scientists in the twentieth century.

In the 1990s, scientists as well as political leaders began to recognize the need for principles that would state universal norms for behavior. In April 1990, in the “Universal Declaration of Human Responsibilities,” the Inter Action Council, a group of 24 former heads of state or government declared, “Because global interdependence demands that we must live with each other in harmony, human beings need rules and constraints. Ethics are the minimum standards that make a collective life possible. Without ethics and self-restraint that are their result, humankind would revert to the survival of the fittest. The world is in need of an ethical base on which to stand.”

The Union of Concerned Scientists, an organization of leading scientists, concurred. “A new ethic is required,” claimed a statement signed in 1993 by 1,670 scientists, including 102 Nobel laureates, from 70 countries. “This ethic must motivate a great movement, convincing reluctant leaders and reluctant governments and reluctant peoples themselves to effect the needed changes.” The scientists noted our new responsibility for caring for the Earth and warned that “a great change in our stewardship of the Earth and the life on it is required if vast human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated.” Human beings and the natural world, they said, are on a collision course. This may so alter the living world that it will be unable to sustain life as we know it.

In November 2003, a group of Nobel Peace laureates meeting in Rome affirmed, “Ethics in the relations between nations and in government policies is of paramount importance. Nations must treat other nations as they wish to be treated. The most powerful nations must remember that as they do, so shall others do.” And in November 2004, the same group of laureates declared, “Only by reaffirming our shared ethical values—respect for human rights and fundamental freedoms—and by observing democratic principles, within and amongst countries, can terrorism be defeated. We must address the root causes of terrorism—poverty, ignorance and injustice—rather than responding to violence with violence.”