



effectiveness of unfettered markets, leading to a growing diversion of financial resources for speculative, non-productive purposes and undermining the stability and growth of the real economy.

- **Food:** Periodic food commodity crisis driven by rising food prices, declining efficiency and productivity, depletion of scarce soil and water resources, and diversion of arable lands to non-food energy crops.
- **Poverty:** Enduring poverty crisis in both developing and developed countries driven by a growing divorce between economic growth and human welfare, and aggravated by rising levels of unemployment, income inequality, food and energy prices.
- **Security:** And finally, as a result and aggravating factor, an emerging crisis in social stability, cohesion, physical and social security arising from the widening gap between human aspirations and available opportunities, leading to alienation, social unrest, crime and violence, and serving as fertile soil for the polarization of society and rise of fundamentalism.

These pressure points share several striking features. First is their mutual interdependence. Each magnifies the severity of the others and is in turn aggravated by all the others. Second is their common origin. Each can be traced back to similar underlying factors and “root” causes. This is the major reason why each of these multiple crises defies effective remedy by piecemeal strategies. The true source of the problem lies at a more fundamental level in the present value system and structure of modern society, and will only lend itself to permanent remedy when understood and addressed from a deeper and wider perspective. Third is the fact that they are all anthropogenic in origin. All are the expression of human ideas, values and actions, not inalienable laws of Nature, which means that all can and can only be rectified by a change in our ideas, values and actions.

A better appreciation of root causes will provide a platform for insightful debate and more effective remedies. Approaching the multiple crises from a common perspective and addressing multiple pressure points at their common underlying roots will lead to solutions that are both more effective and more lasting than those resulting from a fragmented approach. Only then can we hope to reconcile these complex economic, ecological, social and political factors and to forge a coherent strategy to promote security and welfare for all human beings, present and future.

With political leaders, the media and the general public preoccupied by the intensity and immediacy of the financial, economic and employment crises, concern with the potentially catastrophic ecological crisis has receded from the public mind. By addressing the whole gamut of issues in this larger framework, environmentalists can redirect attention to the underlying factors that are the root cause and only viable remedy for the preservation of our natural systems.

An integral perspective constitutes the starting point, but in order to translate it into usable, practical results, we need to examine the ruling ideas and values that govern the present system, the theoretical constructs and policy framework on which it is based, the social institutions through which it functions, and the structures and laws through which

it is governed. These constitute the essential sources of the current problem as well as the principal instruments for building a better world. Striving to formulate a broad conceptual framework for resolving the global crisis may appear far removed from the everyday problems and available policy options, but ultimately, it is an essential step in defining a viable change of course that will lead us out of the present fog of confusion into a better future. The objective of this paper is not to provide all the answers, but rather to present a diagnostic framework, a road map, a manifesto for change, and to highlight key points where systemic changes can and should be made, which in combination can radically alter future outcomes for the good of all humanity.

*“Ideas possess a transformative power. Social evolution is propelled by the perception of new possibilities, the formulation of new ideas and the adoption of new values which release and channel human energy for higher levels of accomplishment.”*

## 1. Ideas can Change the World

The current crises confronting humanity today reinforce the importance of values as the essential basis for global social progress. Unregulated markets that serve the few at the expense of the many, undemocratic institutions of global governance, rising levels of inequality, unsustainable exploitation and destruction of our natural resource base, rising alienation of human capital from productive employment and rising levels of social instability are signs of a social fabric increasingly divorced and insensitive to the welfare and well-being of large sections of humanity. At the root of the multiple crises confronting humanity today is a crises of values that must be resolved before there can be any hope of lasting solutions to the problems facing humanity.

The history of human development is commonly described in terms of advances in technology, but this is an overly-simplified view that disregards other transformative agents of change. The catalytic impact of the Club of Rome’s report, *The Limits to Growth*, on global awareness of the environmental challenge is sufficient proof that

*“Values are not merely utopian ideals. Values define us and the institutions we create.”*

*ideas can change the world.* Ideas possess a transformative power. Social evolution is propelled by the perception of new possibilities, the formulation of new ideas and the adoption of new values which release and channel human energy for higher levels of accomplishment. Agriculture, specialization of labor, property, markets, cities, money, banking, democracy and the internet are examples of new ideas that have transformed the way we live and work together. Human political, economic and social rights are a catalog of values which have radically altered the fabric of social relationships, leading to the progressive emergence of the individual as the pioneer and creative leader of social development.

Values are not merely utopian ideals. Values define us and the institutions we create. The power of values derives from the fact that they contain the quintessence of wisdom acquired by successive generations regarding the essential requirements for higher levels

“*The time is ripe for a new narrative, new metaphors and a new storyline for humanity.*”

of human accomplishment. Thus, it has taken millennia for humanity to realize that freedom creates the most dynamic environment for the emergence and productive expression of human capacities so essential for development, creativity and prosperity. At the same time, it is values that define the balance between the rights and responsibilities of

the individual and the collective, so essential for social stability, productivity, harmony and continuity. Values define the balance between present and future generations and the place of humanity as an integral part of the natural system.

The time is ripe for a new narrative, new metaphors and a new storyline for humanity. We are advised to seek the remedy to the prevailing social ills not merely in technological fixes, but in a re-examination of the fundamental ideas and values on which the current system is based. The limits we confront are mental limits – limits to our perception, understanding, imagination, idealism and values.

A consideration of values compels us to ask seminal questions: What kind of world do we want to create for present and future generations? What are the fundamental premises and values on which it should be based? Any serious attempt to formulate a more coherent and cohesive social framework should begin by examining the values that have driven human progress over the last few centuries and by identifying emerging ideas and values with the power to break the limitations of existing structures and forge a more effective synthesis of human capabilities and resources.

## **2. Need for New Theory**

Adoption of new values compels us to reject the Newtonian conception of economic theory based on intractable laws of nature. The first economists were moral philosophers seeking to design a better social system to meet human needs, not scientists in search of some immutable laws of economy. Economy is a human activity intended for a specific purpose. Production of things, application of technology, multiplying money, and even growth itself are merely means to an end, not ends in themselves. There can be only one legitimate aim of economic activity to promote the maximum welfare of all human beings over time. We need to re-examine current economic theory to see where it fails to promote optimal human welfare and how it can be altered to better suit human needs.

The laws of economics are governed by human values, choices, policies and institutions which can and do evolve continuously over time. Current economic concepts and theories date back to the beginning of the Industrial Revolution and were serviceable during a period when increasing production was the primary means for overcoming scarcity and human want. Continued reliance on outmoded ideas poses a serious threat to the future of humankind.

A triple divorce has disconnected economy from the fundamental role it is intended to serve. First is the widening rift between production and employment. The aim of raising labor productivity has given place to the obsession with eliminating labor altogether from the production process, creating a world with ever growing production capacity, while severely limiting the number of people with the purchasing power necessary to avail of it. Second

is the rift between finance and economy, a divorce of financial markets from the real economy, which they were originally intended to serve. The consequences of this separation have been growing for decades.

“*New economics must be founded on rational thought rather than fundamentalist dogma.*”

Over the past forty years, the world has been wracked by more than 400 financial crises, destabilizing economies and impoverishing people around the world. Money and financial markets have become ends in themselves, channeling capital into speculative investments and depriving the real economy of vital resources. We need to recall that the fundamental purpose of financial markets is to support the real economy and promote human welfare.

Third is the rift between economy and ecology. The blind pursuit of unbridled growth, more production and consumption without regard for the consequences is like a cancer, rapidly destroying the ecological foundations on which human life depends.

New economics must be founded on rational thought rather than fundamentalist dogma. The neoliberal philosophy that underlies efficient market theory is just another name for the law of the jungle. Our aim is not mathematical accuracy but human welfare. The validity of economic axioms must be judged solely in terms of their capacity to promote real-world benefits for human beings. How far economics has strayed from its original and valid purpose is indicated by the fact that two Nobel prizes have been awarded for theories applied in computerized trading programs responsible for destabilizing financial markets and disrupting the entire world economy. The only meaningful measure of efficiency is that which most effectively utilizes available material and social resources to meet the needs of all human beings, present and future.

Economics is presently based on a false system of accounting that assumes all growth is good and all forms of growth are equally good. Current measures regard the economic benefits of war, pollution, crime, rising oil prices, terrorism, epidemics, natural calamities, water scarcity and deforestation as equivalent to activities that promote better nutrition, housing, education, healthcare, physical comforts and conveniences, social harmony, recreation and enjoyment. Nations today are blindly groping, as the medieval traders of Europe did before the invention of double-entry bookkeeping enabled them to clearly distinguish credit vs. debit transactions. Is the world truly richer today because it spends \$60 billion a year on bottled water, largely as a result of increasing concern regarding the availability of good-quality drinking water? By that logic, pricing clean air as a result of growing air pollution would make us richer still.

Newton's laws of motion may be divorced from human notions of value, but the laws of economy are firmly based on the notion of value and the process of valuation. Prices reflect the perceived value of materials, time, people, products, leisure, knowledge, power, status, convenience and enjoyment. Here too, we are employing false measures. It is highway robbery to price water, oil and other non-renewable resources at the financial cost of extracting them, to price forest timber at the cost of cutting it down, unmindful of the consequences; or to price nuclear energy without regard for the full risks of catastrophic events such as

Fukushima, and the full cycle investment costs to society of managing decommissioning and waste disposal.

The concept of public and private goods is based on the idea that the individual and the collective have different terms of reference and standards of value which need to be balanced and reconciled. What serves the one may be to the detriment of the other. Maximizing technology and minimizing labor or diverting financial resources from the real economy into speculative monetary instruments may appear to be of good value to the businessman, but may generate high costs to society in terms of unemployment, income inequality, social welfare expenditure, crime and social alienation. Depleting non-renewable, fossil fuel energy resources may appear to be of good value to industry, but may generate high environmental costs to global society and future generations.

Equally important is the need for a reassessment of the role of money as a social organization and of monetary policy as an instrument for economic regulation. Money is a unique human invention, which like language and the Internet, facilitates exchange, interrelationships and productive collaboration between human beings. But current monetary policy and monetary regulation are veiled by esoteric doctrines, sacred principles and opaque decision-making that obscure real world analysis and open debate regarding their medium and long term impact on human welfare. Econometric models based on mathematical algorithms cannot be relied on to choose what is best for humanity. The validity of the oft cited tradeoff between price stability and employment must be open to discussion and empirical assessment. The need for new values and new thinking must also penetrate this shadowy domain.

A major shift is needed to re-engineer our economies: questioning the assumptions that underlie current economics; altering the system of metrics by which we assess progress to ensure that our valuations reflect the real contribution to human welfare and embed the full costs, direct, indirect and inter-temporal; eliminating the irrational, unsustainable, inequitable and often uneconomic ways in which we deploy, utilize and consume resources; and changing the policies by which we establish the relative prices of various forms of capital – natural and social. We need to review our concept of growth and revamp growth models to ensure they meet the needs of both present and future generations, with particular attention to the future of work and the maintenance of our high-value natural systems.

Most important of all, we need to dispel the misguided belief that we have run out of options and are truly helpless against the intractable laws of nature. The limitations we face today are limits imposed by our values and concepts, not the limits of human potential for accomplishment. A careful analysis of present assumptions supports the view that new theory can lead to the development of far more effective systems for meeting human needs. The criticality of circumstances will compel us to implement radical changes sooner rather than later – **the sooner the better**.

### **3. Employment: An Urgent Priority**

Nowhere is the need for new values and new theory more apparent than with regard to the growing problem of unemployment. Broadly defined, employment and jobs encompass all forms of meaningful, remunerative work – formal and informal, full and part-time, whether engaged by others or self-employed. Similarly, unemployment, underemployment

and marginal subsistence activities encompass all forms in which precious and perishable human resources in both developing and economically advanced countries remain idle or underutilized for want of opportunities for gainful work. Human resources are a perishable commodity, which degenerate rapidly when left unutilized. Underutilization of human resources represents a huge social cost and poses a serious threat to peace and social stability, nationally and globally. It is only by addressing this issue promptly and effectively that we can hope to attract public attention to the serious environmental issues confronting humanity.

*“A human-centered theory of economics must place people first, while fully recognizing that humanity forms an integral part of the natural system.”*

While the consequences of financial instability are more visibly reflected in the media and urgently debated by politicians, and while the consequences of climate change may be far more catastrophic to humanity and life on earth, rising levels of unemployment pose the greatest near term danger to the welfare of humanity and the stability of global society. According to ILO, more than 200 million people are unemployed globally, including 75 million youth. This figure grossly underestimates the real level of unemployment and underemployment which probably exceeds one billion or a third of the global workforce. Official figures for youth unemployment range between 20% and 30% in most OECD countries and are over 50% in Greece and Spain. These figures will continue to rise as deficit reduction strategies cause economic contraction in many countries. Over the next decade, the working-age population of G20 countries will increase by 440 million. In order to generate global full employment, the world would need to create 600 million new jobs within a decade.

Recent trends tell us this is improbable. A pessimistic mindset tells us it is impossible. Yet, the evidence of history contradicts these conclusions. We must reject the false notion that full employment is not feasible. The past sixty years have been the period of the most rapid population growth in world history. During this period 4.2 billion people were added to world population, a growth of 164%. Yet, during the same period total global employment increased by 175% and average levels of unemployment remained relatively constant. The gloom and doom are real to our minds, but they are not an inevitable reality. At present, there is no coherent theory of employment that adequately explains this remarkable achievement. Thus, new theory is essential.

A permanent solution to the global employment challenge demands a radical change in ideas and values. We must recognize that people — human capital — are the most precious of all resources which must be preserved and enhanced at all cost. People are not only the source of all the ideas, products, technologies and discoveries that have directed human development; they also constitute the ultimate purpose of that development. A human-centered theory of economics must place people first, while fully recognizing that humanity forms an integral part of the natural system.

Employment occupies a unique role in a market economic system. As the right to vote is the principal means by which people exercise their political rights in democracy, employment is the principal means by which people exercise economic rights in a democratic market economy. Employment is the economic equivalent of the right to vote. People can survive



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*“Banning speculation can redirect trillions of dollars into job-creating investments in the real economy.”*

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without voting, but not without a means for their sustenance. The right to employment must be constitutionally safeguarded. As Indian Prime Minister Indira Gandhi told during the first conference on Environment and Development in 1972, poverty is the worst form of pollution. And poverty is inextricably linked to the absence of remunerative employment opportunities. Moreover, employment is also essential for social stability. The unemployed are the main source of new recruits for social unrest, organized crime, fundamentalist groups and terrorism.

Recognizing the urgent need to address the global employment challenge, ample means are available to accelerate job growth once we are willing to challenge and reject outmoded assumptions and policies. Policies must be reversed which tax employment and subsidize unemployment needs, incentivize blind adoption of labor-saving technologies and energy-intensive processes, and subsidize fossil fuel and water extraction by wrong pricing. Banning speculation can redirect trillions of dollars into job-creating investments in the real economy. Raising the mandatory minimum level of education globally is a wise investment to upgrade the quality of human resources, while creating new jobs in education and reducing the flow of youth into the workforce. Revising the system of higher education to combine education and work over an extended period and drastically revising curriculum to enhance the quality and relevance of education are also essential measures. These and many other initiatives illustrate the fact that full employment is an achievable goal provided we are committed to achieving it.

#### **4. Rights, Social Equity & Fairness**

Economic progress for all was a basic tenet of the post-war decades. But over the past quarter century, we find an increasing proportion of income and wealth being concentrated among a smaller and smaller proportion of the population. The top 20% of the world's population possessed 33 times more income than the poorest 20% in 1970, 45 times more in 1980, and 74 times more in 1997. The financial assets held by the top 0.1% of humanity are equivalent to the entire world's GDP. The level of inequality is rising in two out of every three countries. This trend is clearly unsustainable and contrary to all rational conceptions of justice and social equity. Where is the rationality or even the efficiency in such a grotesquely lopsided arrangement? What sort of a society are we heading for?

*“We must learn how to balance the constructive role of inequality as a motive power for progress with the growing demand of the aspiring masses for a fair share in the benefits of technological development and in the use of the global commons.”*

At the same time, rising social aspirations fueled by education and the media are increasing the demands and raising the frustration level of those who are left out, creating a structural weakness in the very foundations of social stability. Changes in average income levels tell us little. The tail ends tell the story. A \$1000 increment in income for the wealthy



becomes a further stimulus to speculation, while a similar increment for the poor translates into real economic growth and job growth. As a difference in voltage propels the flow of electrons through a wire, differences in level of achievement can serve as a positive impetus to social development; but beyond an optimal level, the widening gap between rich and poor becomes a growing source of alienation, social unrest, fundamentalism and violence, acting like a short circuit that sparks a conflagration. The insatiable quest for unlimited acquisition and ludicrous indulgence in extravagant consumption cannot be allowed to endanger the future generations of humanity and the well-being of our planet. We must learn how to balance the constructive role of inequality as a motive power for progress with the growing demand of the aspiring masses for a fair share in the benefits of technological development and in the use of the global commons.

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Those who clamor that higher taxes for the rich rob the competent of the just rewards for their superior capacity and hard work overlook the completely arbitrary norms by which society presently allocates the profits of enterprise. No achievement stands on its own strength. Every further advance in technology and enterprise is based on a foundation of past discoveries, inventions and innovations built up over decades or centuries. This cumulative knowledge rightly belongs to all humanity, like the global commons on which we all live. It is right that the distribution of rewards is proportionate to the real relative contribution. Our values must evolve to keep pace with the enormous power unleashed by humanity’s cumulative achievements. Greater power for accomplishment brings with it greater responsibility to disseminate the fruits of that power wisely and fairly.

## **5. Institutions**

We need also to examine the social institutions by which ideas and values are translated into actions for human accomplishment. Institutions are the means by which society organizes itself. Institutions are the channels by which human energies are directed by ideas and values to achieve goals. Institutions include not only the formal and visible organizations we utilize for defense, education, production, social welfare and enjoyment. They also encompass a wide array of intangible and invisible arrangements – customs, laws, rules, systems and habitual ways of life – that determine how activities are carried out, coordinated and integrated with one another. Society may best be conceived as a richly woven fabric of interrelationships linking people, places, activities, organizations, sectors and nations with one another in space and time. Over millennia, this fabric has evolved very gradually, one thread at a time, layer upon layer, physically, socially, mentally and culturally. Taken in totality, they represent the collective know-how of society, the technology of social organization. The history of technology reveals a virtually unlimited progression of discoveries and developments, each becoming the foundation and bedrock for constructing higher level capabilities. So too,

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the technology of social organization has the potential for unlimited innovation and development.

Central among these institutions are property and property rights which date back to Roman times and have failed to keep pace with the radical evolution in social values, technology and resource consumption over the past half century. New concepts and forms of ownership are needed that protect communal and global ownership of resources, spatially and over time, while simultaneously ensuring that returns are shared in an efficient and fair manner reflecting the nature of ownership.

Society is an integrated organization of human activities, which does not respect the arbitrary divisions and boundary lines imposed by our minds or theories. Finance and employment are subsets of economics; economics is a subset of society, and society exists and thrives in harmonious relationship with nature. The efficacy of any social organization depends on its capacity to release and channel human energy for productive purposes. That is only possible when sufficient freedom and opportunity are provided to all members of society to help them develop and express their innate potential within a structured framework that harmonizes private self-interest with public good. Freedom for initiative and regulation to ensure cooperation and fairness go hand in hand. A century ago, capitalism acquired a social conscience to meet the perceived threat of socialism and arrived at a balance between public and private good that resulted in unprecedented prosperity in OECD countries. The collapse of communism symbolized by the fall of the Berlin Wall in 1989 coincided with a resurgence of neo-liberal conceptions that have become a root cause of the current crises. New theory must restore the balance that optimizes the welfare and economic security of all, while giving scope for the creative contributions of each. There is a need to develop a whole range of hybrid goods which, like insurance, serve simultaneously the interests of both the private citizen and society-at-large.

If economics is off-mark, then the institutions it has spawned, supported and protected must also be placed under scrutiny. We have already noted that the divorce between finance and economy is a notable characteristic of the current crisis, one which has severely eroded public trust in our economic institutions. Urgent efforts are needed to reverse the trust deficit arising from the functioning of markets, particularly in the financial sector. The philosophy enshrined in the Washington consensus has promoted unfettered and unregulated markets, at a time when the public good component of economic activities has never been larger or more obvious. Our inquiry needs to examine the options for new institutions and new rules that can better reflect the public good nature of economics, as well as provide the longer term protection of those assets humanity will need to rely upon for generations to come.

## **6. Governance**

New institutions will, in turn, require more enlightened and effective forms of governance, new rules to play by and public policy systems that are far more credible than they are today. At the national level, we cannot build a stable foundation for the future based on

nominally democratic institutions that serve the vested special interests of the elite. That is plutocracy, not democracy. At the international level, the failure of the United Nations system to deliver in many areas exposes the inherent insufficiency of a nation-centric system dominated by a few privileged, powerful nations in the name of democracy, at the expense of other nations and the global community. These failures compel us to think through new paradigms, new alliances and new modes of securing the legitimate rights of nations, individuals and collective humanity.

The issue of democratic governance is complicated by several factors. First is the ideological confusion between freedom and the unfettered pursuit of self-interest, which regards all forms of regulation as an infringement on democratic rights. In both politics and economy, freedom can only exist when safeguards are in place to protect the whole society against the misuse of power, all

forms of power – monetary and social power as much as political and military power, the power of the majority as well as that of an elite minority. Second is the tendency of parliamentary democracies to address the narrow, short-term, self-interested concerns of voters at the expense of wider, longer term issues. Democracies will have to find ways to more fairly represent the interests of future generations. Third is the challenge of instituting a democratic system of global governance, when nations that most loudly proclaim their commitment to democracy at the national level have serious misgivings about extending the same principles to the global level, as illustrated by the resistance of the five permanent members of the UN Security Council to democratize the UN’s most powerful organ. Fourth is the recognition that national governments represent only one of the groups of actors that make up the global community. Even in so-called democracies, national governments are often more representative of money power than the real interests of their own citizens. Therefore, the evolution of global governance will need to find ways to represent the interests of other important constituencies. These challenges can and must be overcome in order to fully address the common problems facing humanity.

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The process of globalization has reached a critical juncture. All of the crises referred to in this paper are essentially global in nature and cannot be effectively addressed by each nation in isolation from the rest. This is obviously true of the financial and ecological crises, but it is also true of the crisis in employment which is increasingly subject to factors beyond control by national governments. Today’s multidimensional crisis is a result of the fact that global society has expanded far more rapidly than the institutions required to govern it. Today’s financial and economic crisis is not a repeat of the national level crisis of the 1930s, but rather a playing out of a similar scenario at the global level.

Yet, we still cling to outmoded concepts and models which are increasingly irrelevant, such as a narrow interpretation of sovereignty founded on the right of nation-states to self-determination, disregarding the equally legitimate rights of lateral communities made possible by technological advances and of the global human community that is so rapidly coalescing. A strictly state-centric system of governance is no longer viable in a world with

so many legitimate voices and cross-currents of relationship. These changes necessitate evolution of new systems for global governance and new principles of global public policy.

## 7. The Big Question

Incremental tinkering with the present system in one or all major dimensions may or may not generate some temporary relief and buy a little time, but definitely will not make our problems disappear. If they recede for a time, they will return with greater intensity until we consent to address them at their roots. Business as usual is not an option. Adding a few “bells and whistles” will not work.

At the same time, we should not underestimate humanity’s inexhaustible capacity for creative ingenuity, resourcefulness and adaptive change. But, before we can bring about effective change, we must know where it is we want to go and what kind of world we want to create for ourselves. Thus, the inquiry must begin with formulation of the values on which our future should be based.

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This should be followed by asking a fundamental question which is usually overlooked in our haste for quick fixes and piecemeal remedies: *Is there any possible way for us to reformulate and reconstruct global society in a manner that is more conducive to the security, welfare and well-being of all human beings and fully compatible with the natural systems on which we depend?* Intuitively, we must answer this question with an emphatic affirmation. There is, there must be, a better way than what we have today. It is inconceivable that a species which has emerged from the jungle, built cities, sailed the seas and the skies should have reached the end of its evolutionary potentials.

We live in a world of paradoxes: unprecedented abundance lives side by side with unmitigated poverty. Billions of people remain at subsistence levels, while global financial assets have multiplied from \$12 trillion to \$216 trillion in three decades, and are now equivalent to nearly four times the global GDP. The world possesses the surplus capacity to produce every variety of goods, yet billions lack the resources to procure them. Hundreds of millions of able-bodied willing workers are without employment opportunities, more than a billion are underemployed, while urgent needs remain unfulfilled for more and better food, clothing, housing, education, health care, communications, transportation, and other essentials of life. The most advanced technologies co-exist alongside the most primitive living conditions. There is something grossly inadequate and perverse about a system with so much power and such visible incapacity to meet human needs. These grossly apparent failures are sufficient confirmation that a better system must be possible and that the world is ripe for new thinking.

## 8. Is Radical Change Possible?

*“It is true that humanity clings to the past in spite of repeated failures. It is also true that failure and crisis have proven to be a marvelous instrument for education and motivation for change.”*

The doubling of world population between 1650 and 1800 prompted Thomas Malthus to predict that humanity would be forever caught in a vicious cycle of unbridled population growth, poverty and famine. Malthus’ analysis was correct, but his prediction did not come true, because he could not anticipate the multidimensional social revolution which radically altered circumstances in the following decades. The technological developments that ushered in the Industrial Revolution only partly explain what happened. Equally important was the opening up of new lands in North America, the dynamism unleashed by the spread of democracy following the French Revolution, and the mechanization of farm production and higher levels of productivity, which reduced dependence on child labor and large families. In addition, declining death rates, the spread of general education and rise of the Middle Class shifted emphasis from the number of children to the quality of their upbringing. These and other factors made possible a seven-fold increase in population between 1800 and 2000, while at the same time real per capita income multiplied twelve-fold.

Forty years ago, *The Limits to Growth* generated awareness of another pending crisis threatening humanity. The report was not a prediction of dire calamity or even of an end to growth, but it clearly signaled the coming end of the old model of natural resource-intensive, industrial development. Since then, the landscape has been altered by the emergence of the knowledge-based service economy, the birth and growth of the Internet, technological advances in energy and miniaturization, globalization of trade, rising levels of education and rising social expectations among the aspiring masses in developing countries. Some of these factors mitigate while others aggravate the challenges posed by growth. But, they all point to the fact that society is evolving so rapidly that it is worthwhile envisioning a new framework which reconciles social aspirations with economic and ecological limits.

It is important not to underestimate the power of vested interests and agents of the status quo. The world is the way it is today because many people benefit from the current system and distribution of power and would like it to remain just as it is. The current values, theories, institutions and power structures have ardent advocates. At the same time, it is important not to underestimate the capacity for radical change. Monarchy did not disappear because monarchs decided they preferred democracy, but because the masses of ordinary people no longer consented to be governed by and for the benefit of a small elite. After spreading to encompass more than half of humanity, the European colonial empires disappeared within a single decade when the aspiration of 45 oppressed nations awakened to the call of freedom and demanded self-determination.

It is true that humanity clings to the past in spite of repeated failures. It is also true that failure and crisis have proven to be a marvelous instrument for education and a powerful motivation for change. Ideally and hopefully, we can change without the need for crises and challenges to spur us to change our way of life. But either way, we need first to be prepared

with a set of alternative ideas to be adopted when the time is ripe. Our conviction is that if we fully prepare ourselves intellectually, we can make that time come now.

## 9. From Revolution to Evolution

“*A social revolution is already afoot. If government does not solve the problem, people will.*”

When Franklin D. Roosevelt assumed the US presidency in 1932, he faced a multidimensional crisis that had defied resolution by existing dogma or incremental policy changes. Faced with a banking crisis that had already destroyed 6000 American banks and an economic crisis that had displaced 25% of the workforce and reduced GDP by 50%, he was compelled to embrace new ideas, adopt new

values, establish new institutions and alter radically the role and responsibility of government for promoting human welfare. Growing fear of the compelling attraction of communism for the masses compelled capitalism to adopt a human face. In a country founded on principles of free market capitalism which regarded all forms of socialism with anathema, the New Deal was nothing short of radical social revolution. The dire suffering imposed by an economic collapse during the Great Depression compelled liberal ideologues to embrace policies contrary to the very core of their beliefs and established the foundation for a half century of unprecedented prosperity.

Those who doubt the capacity of humanity to make the necessary changes fail to realize the real magnitude of the multidimensional crisis that is emerging and cling to the belief in our collective capacity to muddle through. This is a grave error. A social revolution is already afoot. If government does not solve the problem, people will. Long before climate change floods our coast lines, armies of unemployed youth, excluded poor and alienated elderly will, like a tsunami, storm the bastille of our most sacred assumptions and entrenched privileges. The Arab Spring and Occupy Wall Street movements that have sprouted up in over 1000 cities in 82 countries around the world are only sparks of a coming social conflagration that reflect the deep erosion of faith in our institutions and way of life. In this modern communications age, the gap between rising social expectations and growing inequalities is straining the fabric of global society. The storm of protest and unrest will relentlessly persist until either we change the rules to accommodate these frustrated aspirations or it tears the present structure of selfish greed and utter folly into shreds. When it does, it is not going to honor anyone's theoretical premises or self-satisfied convictions.

As each of these pressure points gathers steam, the force compelling change will only grow greater in both urgency and intensity. Each of the separate strands of crisis has its own in-built multiplier effect. In combination, they will generate a momentum that may build gradually, but once it crosses the tipping point, it will rise exponentially. Once an event crosses a crucial transition point, the effort required to reverse the direction also multiplies. The 2008 financial crisis is proof of the fact that once public confidence is eroded beyond a certain point, the spill-over effects are extremely difficult to contain and reverse. Confidence nurtured over decades can vanish in a moment.

This is not a prediction of doom, but a call for immediate and concerted action to embrace the values, formulate the new ideas and put in place the next layer of governance structures required to cope with the challenges posed by humanity's remarkable achievements during the 20th century. We have the capacity by the strength of our ideas to convert the approaching revolution into rapid social evolution. Our call is revolutionary in spirit, evolutionary in implementation. The challenge we face is to seize the opportunity for change, to seize the century that lies waiting for us.

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