

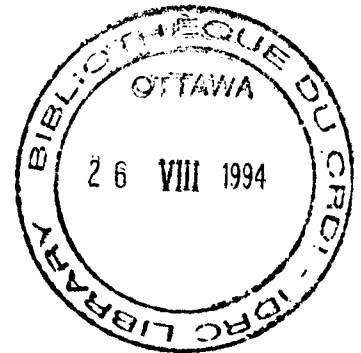


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CHANGES AND CHALLENGES: THE NEW CONTEXT OF INTERNATIONAL DEVELOPMENT

by



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Next year, we will pause to commemorate the 50th anniversary of the defeat of Hitler and the end of the Second World War. During most of the past half century, while the ideological duel of the Cold War was conducted, the idea of global development has served as the engine and intellectual base of North-South relations. Yet today that idea and the forces that have nurtured and sustained it are in serious trouble. Poorer countries -- particularly those in Africa -- profess their alarm over what they interpret as international abandonment, if not betrayal, and development workers grow increasingly disheartened at the prospect of trying to do much more with much less.

Why is the idea of global "development" in such difficulty? It has, after all, endured for almost five decades as a towering and inspiring vision which stimulated international enthusiasm. Why is the very idea of development in danger of total collapse?

Development as conceived in the post-war years was a radical departure and a revolutionary idea. Until that time, societies of the South were viewed as incomparable with those in the North. The post-war development paradigm placed all societies on a single continuum of less or more advanced relative to the criteria of the industrial North. What followed logically from the paradigm was that Third World societies were poor and that international actions were required to change this. The idea was, of course, more complex than this and involved:

- an economic component which held that, with the right combination of finance, technology and policy, all nations and peoples could achieve more or less equitable conditions;
- a political/ethical component which held that social justice on a global scale was both desirable and feasible through the cooperation of nations;
- a technical and geophysical component which assumed that the resources of the planet were inexhaustible and that science and technology would ensure their availability for all.

For most of the past four decades, this idea of development has reinforced perceptions that poorer countries are filled with potential. And it has spawned a vocabulary which referred to them as "young" and "emerging."

That this idea stands under attack today as never before is manifestly not because the development effort itself has failed. True, many examples have been catalogued of efforts

that were either misguided and naive or that applied "state of the art" knowledge and still ended in embarrassing failure. Equally true is the fact that the decade of the 1980's is characterized, quite correctly, as the "lost decade" in international development. Finally, and very disturbing, is the fact that the first two years of this decade witnessed declines in per capita income in developing countries as a whole (population weighted). Such year-on-year average reductions had never before been recorded in the more than 25 years during which the World Bank has collected these data.

It is also, however, the case that from 1960-1980 the gains in developing countries as a whole were impressive. GDP growth, for example, in developing countries exceeded that of the industrial North. The staggering gains in literacy, nutrition, life expectancy, infant mortality and agricultural output are all part of the historical record. That same historical record testifies to the speed with which development, as measured by output per capita, can occur. It took the United Kingdom, beginning in 1780, fifty-eight years to double its output per person. Starting in 1839, the United States accomplished the doubling in forty-seven years. Starting in the 1880's, Japan accomplished the same in thirty-four years. In the period following 1945, Brazil doubled its per capita output in eighteen years, Indonesia in seventeen, Korea in eleven, and China in ten.

What seems clear, therefore, is that the vision of global development is today in serious difficulty not because its application has consistently and dramatically failed, but for other reasons. And these other reasons have to do with an entirely new context, with the tidal forces of change and discontinuity which Alvin Toffler classifies as the "Third Wave," with the unleashing of revolutionary forces paralleled in history only by the agrarian and industrial revolutions.

What, then, can be said about the new context and what does that tell us about "development"? I would suggest six important features that define the current context not just for "development" -- whatever that word may mean to us -- but for all aspirations for improving the human condition.

First: A dramatically changed political context. This includes, of course the self-evident end of the Cold War and the breakdown of ideology. Beyond that, however, is something that I find far more significant in the political context of today: the supplanting of the nation-state itself by new forces, by transnational and supranational entities. The effects of these new forces traverse all boundaries. They are fast rendering meaningless the intellectual basis for differentiation along a North-South axis. A more accurate reflection of what is happening between and within societies is increasingly to be found on an "included-excluded" axis.

In his book "The Work of Nations," Robert Reich (now Secretary of Labour in the Clinton administration) tells us forcefully that these new forces will:

"bestow..... ever greater wealth on the most skilled and insightful, while consigning ...(others) .. to a declining standard of living."

Reich is correct. The poorest segments of the world, whether they are within our society or in countries with annual per capita incomes of \$300, are likely to be consigned to the declining standard of living to which Reich refers. The investments of transnational and supranational entities are unlikely to be the kinds of investments that the poverty ridden parts of the world require: basic infrastructure, health, education, and fundamental services for the integration of populations into their own economies and societies. Since the 18th century, these are the kinds of investments that have been made by the nation-state.

Furthermore, most development agencies work through the nation-state; that is to say, the delivery of what we call "development" assumes the effective intermediation of the nation-state. Finally, development agencies derive their financing from the benevolence of nation-states.

If, as I suggest, the nation-state is being supplanted by new forces and new entities, then it is small wonder that the idea of global development is in serious difficulty.

Second: Economic globalization. This feature relates closely to my previous point. Starting in the 1970s, capital markets became increasingly liberalized or globalized. Borders opened, not just to the movement of capital, but to physical plant, to goods, to entrepreneurial activity. One result, as indicated above, is that countries are increasingly powerless in the distribution of social benefits to their citizens. The magnitude of this globalization is illustrated by capital markets where something in the order of one trillion dollars -- one thousand billion dollars -- changes hands every day. This is accomplished via technologies that allow global transactions at the speed of electronic impulse. These transactions are largely divorced from the production of goods and services. Most estimates agree that about 95% of the daily capital flow of a trillion dollars is short-term and speculative in nature, centering on, for example, whether a central bank rate will rise or fall a few basis points, whether an unemployment rate will increase or decrease a fraction of a percentage point, or whether a monthly national trade figure will show movement in relation to that of the previous month.

Should we be worried about this unprecedented movement of capital? Or should we believe orthodox economists who offer many reasons why the present financial system will continue? We know that Central Banks and finance ministries have put emergency controls in place to avoid a financial "meltdown." We also know that such controls have not yet been fully

tested, but their very existence reflects fear on the part of those charged with monitoring this vast, free-flowing flood of capital.

The dominant belief is that we can profit from globalized capital flows and all other aspects of globalization by making the correct policy adjustments and by using highly trained, agile, managers. I hope that those assumptions are correct. But extrapolate these remedies to the poor countries of the world. Many of the world's poorer regions simply do not have the institutions, human resources or financial flexibility to make these adjustments. And, unless something is done about this, the result will be a further and possible permanent marginalization of an increasing percentage of the world's population. Development as we have understood it and practised it over the past forty years is hopelessly inadequate to deal with this aspect of our new context.

Third: Environmental globalization. A foundation stone of Western thought since the nineteenth century has been a profound faith in progress, principally through advances in science and technology. Such advances had bestowed upon the industrial nations, and particularly the United States, a high material standard of living. The architects of the post-war order believed that those advances would continue indefinitely. It is this idea of progress and its inevitability that today is rapidly fading. The Western expectation, for example, that the next generation will necessarily achieve a more materially enriched standard of living than the present one is now seriously in doubt.

The condition of our life-sustaining environment is calling further into jeopardy the Western ethos of the inevitability of material progress. There is little doubt that the world economy has already reached and surpassed its sustainable physical limits. We are drawing down groundwater, eroding soils, cutting forests and harvesting fish faster than they can replenish themselves. We are burning nonrenewable fossil fuels without developing substitutes, and overloading our ecosystem to the point that people fear the sunshine because of damage to the ozone layer.

Faced with these realities, a very fundamental component of the Western ethos -- the belief in a necessary link between advances in science and technology on the one hand, and the well-being of the earth and its inhabitants on the other -- is being eroded. The post-war vision of global development was a part of that larger faith -- part of the Western ethos -- that held material progress to be inevitable through science and technology.

Fourth: The content and direction of international trade. The content of international trade has shifted away from commodities, (exported primarily by developing countries) towards high-technology services and manufactured products, (typically the exports of industrial countries). These changes in the nature of international trade mean that, with the exception of oil, the industrial world simply does not need the developing world as it did

20 or 30 years ago. Also, powerful new trading blocks are growing up quickly and having major economic effects on all nations of the world.

Fifth: Scientific and technological innovation. Although the terms "biotechnology" and "micro-electronics" have been part of our vocabulary for some years now, they have not been easy to find in development literature until recently. Now, these and other similar phenomena are fast changing the way in which the international marketplace functions and the way in which we live our lives.

Communities and individuals who can tap into these new technologies by owning, using and adapting them will profit greatly. Those who are unable to do so are likely to become increasingly marginalized from the global marketplace. Again, it is the poorer societies of the world and the poor segments of richer societies that are ill-equipped to benefit from the speed and intensity of scientific and technological change.

My sixth and final contextual point relates to the **major global shifts in socio-cultural value systems.** Aided and abetted by advances in communication and information technology, a westernized consumer/popular culture is emerging all around the world. Accompanying this trend, is increasing evidence of deterioration in the collective bonds of community, kinship and the loss of traditional reference points of a spiritual and ideological nature. One growing reaction is the rise of religious fundamentalism, new religious sects, and anti-technology movements of various kinds. There is also growing evidence of serious intellectual questioning of the desirability of development in most of the forms in which we have known it.

These shifts of a socio-cultural nature may be of greater significance to "development" than the previous five. The approach to international development over the past four decades certainly included reference to culture and value systems. For the most part, however, values, beliefs and cultures were treated both in the literature and in practice as "externalities", very much in the same way as economists treated and continue to treat the environment as external to economic models. How could it be otherwise? Development and the vision that sustained it were linked inextricably to the dominant socio-economic paradigm. Development has been approached as a technocratic matter where the right combination of capital, technical know-how and of doing things "our" way would lead to "progress" or "development." And to be "developed" meant, by definition, to be like us.

The global shifts in socio-cultural value systems suggests to me more strongly than the other five factors I have listed that the once towering vision of global development cannot be rekindled by a bit of fine tuning. Things will not "return to normal" by mere re-adjustment of the thresholds. New thinking, a new model --- yes, a new paradigm -- are needed. Imagination and humility will be needed to approach human existence and progress on a

completely different basis, embracing people as beneficiaries not as resources and regarding their aspirations and beliefs as goals rather than constraints.

These six contextual features are components of a tidal shift, of the "third wave". We are living through no ordinary crisis; this is a "megacrisis", the dimensions of which we do not fully understand. Yet, our thinking, institutions and leaders are accustomed to addressing only limited manifestations of the megacrisis and always in a positive way. Our language reflects this. We speak of a temporary but nagging recession; we manage a Third World debt problem as a short-term liquidity problem; we look at the environmental peril of spaceship earth knowing that someone will come up with the right technological fix; we wage localized wars against inflation; recovery is just around the next corner. Yet, language and institutions aside, there is an awareness deep within -- a growing, amorphous awareness -- that this is indeed a megacrisis. The "New World Order" -- perhaps the fastest cliché ever to enter our language -- is quickly being replaced in our minds by the cynical words "New World Disorder". In all of this, it is hardly surprising that our 1950's concepts of economic development, of the elimination of poverty and misery, are in international free fall.

It may be instructive to pause for a moment and to recall a time when the world approached the end of a previous century and was staggered and bewildered by forces of tidal change. Thomas Paine (1737-1809), renowned in England, France and America as the protagonist of the Rights of Man, looked about his world at the end of the eighteenth century. What he saw was a Europe in disarray; the French revolution; the rise of the Reign of Terror; the American Revolution; Europe coming unstuck and on the verge of the Napoleonic Wars; demagogues rising up everywhere; the breakdown of government; people homeless in the streets as the result of the Industrial Revolution; individuals whose social, economic and cultural roots had disappeared, who were no longer rural and had no place in an urban world; high degrees of violence and criminality; the beginning of the breakdown of the church.

Thomas Paine stood back from this frightening landscape and wrote the following:

"We have it in our power to begin the world all over again. A situation similar to the present hath not appeared since the days of Noah until now."

Paine's words would, of course, be total hyperbole were it not for the fact that he was right. The very nature of society, of government, of the relationship of the individual to the collectivity was transformed in the years of the nineteenth century, as was the pattern of values, attitudes and beliefs.

We find ourselves again today in one of those rare historical or defining moments. The world is being remade -- for good or for ill -- whether Canadians are active participants or

passive observers. So how do we go about discovering or inventing a new vision of development, of a better, fairer, more sustainable world? In the words of Gus Speth, the new Administrator of the United Nations Development Program:

"How do we turn off the crisis machine?How do we shape a new paradigm that can give the world hope, harness our energies and provide motivation?"

If there were ready answers to these critical questions, we would, of course, have discovered them by now. The megacrisis would be over; we and our fellow travellers on planet earth would be approaching the third millennium with some certainty as to direction and outcome. The Chinese proverb holds that: "If we don't change direction, we'll get to where we're going." With a few notable exceptions, opinion surveys from all parts of the world confirm a global sense of unease with where we are and a deep fear of where we are going. Some will see hyperbole in this, but they would at least allow, I believe, that the way ahead in terms of the human condition is far from clear. Few would disagree that Pangloss would be as wrong today as he was when Voltaire had him say: "Tout est pour le mieux dans le meilleur des mondes possibles." And most today would associate with Voltaire's reply to Pangloss: "If this is the best of all possible worlds, what must the others be like!"

The diagnosis of a problem usually proves much easier than does prognosis. Certainly, the dangers today are greater than when Paine saw in pervasive danger the opportunity to reinvent the world. Ours is a heavier legacy than Paine's and we have less time to fix things. Yet just as the Chinese ideogram for "crisis" is made up of two symbols -- one for danger and one for opportunity -- it is essential that we look beyond the dangers and that we seek out the opportunities. I have no roadmap to offer, but let me propose some modest thoughts as to what some of the opportunities might be. This I do knowing that these must be added to and expanded. What I see at the moment are three major clusters of opportunity which are fast emerging and which, if seized and nurtured, may help in moving us away from the megacrisis.

The first opportunity I see is in the **trend towards increasing recognition and acceptance of global interdependence**. To say this may appear at first blush to be naive, to ignore completely the current reality of ever increasing economic globalization with its unprecedented competition. Yet, in parallel with that globalization is the fact that the ideological battles of the past are being replaced by the search for a more pragmatic partnership between market efficiency and social compassion. And humanity is being reminded with the growing force of the rising environmental threat and of the imperative of common survival on this fragile planet, of the fact that we are all in this together.

This kind of thinking is, of course, not entirely new. Early in the 17th century, John Donne wrote that: "No man is an island, entire of itself; every man is a piece of the continent, a

part of the main..." I don't think, however, that even Donne foresaw the global interdependence of which we are speaking. Some elements of this vision were clearly behind the founding charter of the United Nations, even though only 26 of the 184 nations now members of that organization were present as original signatories. The idea of global interdependence has been dangerously slow in taking root, but it is happening.

The United Nations Conference on Environment and Development, the Earth Summit at Rio, was evidence of this. Of the 182 nations who came to discuss the future of the world, 105 were represented by their heads of government. Also in attendance from all parts of the world and as major new players in international negotiations were non-governmental organizations, women's organizations, youth, and indigenous peoples' movements. Yes, there were different agendas. Yes, some came saying "the problem is in developing countries where population is growing too fast." Yes, some argued that "the villains are industrial countries where consumption is out of control." But, equally true is the fact that they came and that in some modest way some initial building blocks were laid for a global framework. Conventions on carbon-gas emissions and biodiversity were signed. Statements on forestry principles were promulgated. "Agenda 21" was announced as a global action plan, though one that was much watered down because it was in the end what it had to be: an intergovernmental, consensus document. But for whatever its defects, "Agenda 21" is a global action plan that assumes interdependence.

Another element of this recognition of interdependence is one which I detect in the debates within countries and within communities on "security". These debates are not on security in the Cold War sense of protection from nuclear attack; they entail a much more complex view of how a lifestyle -- be it national or individual -- depends on factors that are far removed from direct control, but over which some influence is desirable. Security for the northern hemisphere is seen increasingly in terms of what happens to the rainforests of the Amazon or the drylands of Africa. Certainly, we do not understand all the linkages, but awareness and concern are growing.

The security debate does not end with environmental concerns. It is expanding to include security in terms of education and health security, food security, employment security and cultural security. And this is natural for we are already beginning to see that the conflicts of the future will be more between people than between nations. If we succeed in redefining security in this way, we may be able to take advantage of the only opportunity that history has given us to reduce military expenditures. In the past five years, we have seen a reduction of global military expenditure of some \$250 billion. Never before, at least not in our lifetime, has this happened. There is a peace dividend and we should not be fooled into thinking that it is but an illusion. Military spending increased annually for over forty years, but it has decreased by 3 percent each year over the past six years.

This notion of interdependence is revolutionary; it requires not merely a change to some of our thoughts, but a change in mindset. And one first step towards that may be the need for a change in language. Language is not mere detail; it hampers or facilitates our ability to look at a new set of relations and concepts that may be better adapted to the future. A characteristic of the current global transformation is that the landscape, or earthscape, is changing even as we attempt to understand and analyze it. A second characteristic is that our concepts and the language we use to express them are increasingly inadequate or, even, erroneous.

Interdependence is a concept of enormous complexity, requiring fresh thinking if we are to **understand** it. Although we know how to **describe** and how to **explain**, we can easily overlook the fact that describing and explaining do not amount to understanding. The former have to do with knowledge, which is the stuff of science, while the latter has to do with meaning, the stuff of enlightenment. I believe that I can describe and explain interdependence, but I know that I do not understand it. I do not understand what it would mean to our theories of society, whether social or economic. And I do not understand what the boundaries of an interdependence paradigm would look like in terms of lifestyles and the relationship of lifestyles to physical ecology. What I do know is that much of my current language will not fit into an interdependence paradigm. Terms like "Third World", "North/South" or even "developing countries" suggest groups that are homogeneous, whereas we have long known that as labels they obscure as much as they elucidate. And I suspect that the word "development" itself will take on such a different meaning as to merit replacement rather than mere re-definition.

So, recognition of interdependence is a major opportunity and one that will require us to change our mindset and language.

A second opportunity that we have is that **people are more and more clear about their desire to re-claim control** over their own lives. Now this is a simple assertion, but it has profound implications. The rate of technological and economic change has far outstripped the rate of social innovation, or even the power of governments to keep up. And this, of course, again challenges us to re-think what we mean by "development." Can we move beyond the simple controversies about whether economic growth is necessary or not? For most of the world, growth is not an option; it is an imperative. The debate is for the most part not about growth; it is about who participates in growth, who benefits from growth, and whether the growth is sustainable. Can we bury the mindset which holds that development is something that is done to and for people? Whatever else development is, it is self-administered; people do it by themselves and for themselves. Facilitation, help, the provision of the right conditions -- often called an "enabling environment" -- may be necessary to stimulate or to catalyse, but it is people that must act. In development many actors -- donor and government organizations -- have lost sight of this. In some cases,

people have lost sight of it too. We want a clean environment, but it is someone else's responsibility to provide it.

The evidence is growing that people want to re-claim control over their own lives. This is perhaps driven in part by sheer necessity, by the declining capacity of the nation-state to distribute social goods, by the basic drive for survival. But it is happening. Mabub ul Haq, principal architect of the UNDP's Human Development Report, captures brilliantly the opportunity this presents in issuing the following challenge as a Southerner to the South:

"Can the South accept that 80 to 90 percent of the development task is its own responsibility? Will it finally refuse to find external alibis for their internal problems? Nobody from the outside has obliged Pakistan, Ethiopia and Somalia to spend more than three times as much on defense as on education and health. Nobody has forced Cameroon to experience public sector losses that exceed the total oil revenue of the state or Argentina to lose twice as much of its GNP on inefficient public enterprises as it spends on social services. And nobody has obliged Brazil to earmark 82 percent of its health budget to expensive urban hospitals while spending only 18 percent on primary health care facilities. We in the South have done it all ourselves. We must face up to this truth and take much-delayed actions on our domestic front."

There are elements of social innovation, or re-claiming control, that give cause for optimism. There is much despair about Africa, about the marginalization of most of an entire continent. And yet we are witnessing in Africa a veritable explosion of non-governmental and self-help organizations (a majority of them, by the way, organized and managed by groupings of women). We, at IDRC, have been so impressed by this and the opportunity it presents that we are trying to assist in the building of linkages between them so that they can learn from one another. And this is happening where, until quite recently, governments were hostile to these kinds of organizations, on the grounds that they infringed on government's role as the sole purveyor of development.

This phenomenon is by no means restricted to the poorer parts of the world. Throughout the industrial world, including very much our own country, we are seeing the emergence of new forms of consultation, stakeholders processes, roundtables, with a view to resolving potential conflict and building consensus.

John Evans, ex-President of the University of Toronto, now chair of Torstar Corporation, has recently spoken out about the importance of social capital as the engine of development, and he urges us to rediscover the virtues of community development and action. He has

drawn attention to a recent book by Robert Putnam describing studies which strongly link economic development to the quality of social organizations in the community.

"Historical reviews in Italy suggest that communities did not become civil because they were rich, but rather became rich because they were civic..... The social capital represented by networks of civic engagements seems to be a pre-condition for economic development and effective government. A society that relies on generalized reciprocity and mutual assistance is more effective than a competitive, distrustful society. The network helps to overcome anonymity, cultivates reputation and builds trust of others through communication and interaction. Successful collaboration in one activity builds social capital connections and trust for other activities. The social capital is built from an investment of the time and caring of individuals: it does not deplete the public treasury."

At the root of the re-focusing urged by John Evans is a paradigm shift in values. The practice of development over the past forty years has cloaked itself in the pretence that it was value-free or value-neutral. Nothing was further from the truth. The foundation stone of development thought and practice was the dominant socio-economic paradigm of the industrial north, emphasizing individualism, technology, consumption, personal wealth and the inadvertent neglect of the social fabric of the community. Values and culture were externalities which simply "got in the way"; they were dealt with only as necessary.

The subject of values, of culture -- indeed, of human spirituality -- are becoming a much more accepted part of the development debate than they have been over the last 40 years. The change derives in considerable measure from our own feeling in the richer countries that **we have not got it all right**. Confidence in our unsustainable model has now been shaken, and that has brought...is bringing... a greater interest in questioning the value set underlying our own model, our own dominant paradigm. Similarly, our faith in technology -- that fundamental feature of our Western, secular ethos -- as the great fixer of all the ills we could visit on the planet and as a guaranteed source of higher living standards, has been shaken. With new-found humility, we are much more able to recognize what we don't know, and what we may even have to learn from others.

So people reasserting control, and re-focusing development has tremendous potential and is a powerful opportunity.

You will not be surprised that coming from a knowledge-based organization, I see a **third area of opportunity in the quest for innovation**. There is an awareness of the importance of innovating, and learning to do things differently that makes for a demand -- a thirst -- for knowledge. Not only are we in the midst of global transformation based on knowledge, in

terms of our production processes, but we require better knowledge overall to respond to the conditions that define the crisis. And this demand for knowledge about how to do things better has probably never been more pronounced. The quest for innovation is accelerating and is evident at both the macro and micro levels.

At the macro level, we are emerging from a major ideological battle around the issues of the market and the state. One of the myths that characterized the battle was that the market could do it all. Yet any reading of history tells us that the very qualities of aggressiveness, daring and, yes, greed that make markets work also cause them to fail. And that same reading of history tells us that a strong state is needed to deal with market failure or, better still, to prevent the more severe dislocations by preventing market failure. History notwithstanding, we still hear strident claims that socialism is dead and the market has triumphed. Capitalism has shown its vitality and not for the first time, but we must ensure that the victory is not a victory only of personal greed. And if socialism as an ideology is vanquished, let us ensure that it is not also the death of all social objectives. Of course, the efficiency of the marketplace is needed. The creative energies of capitalism must be blended with the social objectives of equity and of human development.

Robert Heilbroner in his 1992 essay "Twenty-First Century Capitalism" looks to the future and offers a reflection on the possible nature of an innovative economic-social blend:

"If I were to hazard a description of the capitalisms most likely to succeed, I would think they would be those characterized by a high degree of political pragmatism, a low index of ideological fervour, a well-developed civil service, and a tradition of public cohesion. All successful capitalisms, I further believe, will find ways to assure labour of security of employment and income, management of the right to restructure tasks for efficiency's sake, and government of its legitimate role as a coordinator of national growth....."

The call for appropriate innovation at the macro level is striking an increasingly resonant chord. It is a call for the seizing of opportunity in the face of danger. At present, we can grasp but the dim outlines of appropriate innovations in this area, but it is here in the pragmatic combination of efficiency and equity that the viability of future models of development will be found.

At the micro level, innovation in technology also has a role to play -- if not as the all-powerful fixer, at least as the essential helper. We know that technology has been a driving factor in all cases of rapid economic growth. This proved as true for the United States in the 19th century, Japan in the 19th and early 20th centuries, as it has been for South Korea, Taiwan, or Singapore over the past few years. Entirely new technologies open fantastic new

opportunities. But ongoing adaptation, enrichment and innovation to technologies is the key to more sustained economic growth.

We have also become, too late for many it must be said, much more mindful of the tremendous potential of indigenous knowledge, micro knowledge about particular plants, knowledge about how to live harmoniously with specific eco-systems. Having said this, we should be mindful of the high level of asymmetry in power and resources for essential R&D on such matters. Global R&D expenditures are estimated in the order of \$450 billion. Only \$20 billion (less than 5 percent) of that is spent in developing countries.

The quest for innovation is rising. The challenge is to nurture it, to capture its constructive impulse and to incorporate it fully, deliberately, strategically into new thinking on a new vision of development, into a new paradigm that can turn off the crisis machine and signal hope for a sustainable and equitable future.

Conclusion:

I have argued that in understanding the "why" and the "how" of re-thinking "development", we must take account of the principal features of change in the global context. The scope of these changes and the transformation that we are in may lead us to talk of megacrisis, but this must not allow us to falter in seeking out a much-needed new vision of global development; rather it must inform and contribute to it. I am convinced that we have opportunities that can assist us in re-inventing the world and I have suggested three for further consideration. You will no doubt think of others. These opportunities are exciting and must command our active participation, as citizens, as thinkers, as human beings. But opportunities in themselves speak only to potential; they have to be grasped if they are to contribute to the solutions and to the vision that we require.

Building on the recognition of interdependence will require an international institutional framework that is more effective and more robust than the one we now have. The present set of institutions and mechanisms is inadequate for dealing with the changes that have already taken place in our world, much less those that are still to come. There will clearly be much discussion of reform to the UN framework this year and next, as we lead up to the 50th anniversary of the United Nations and this may provide another opportunity.

People will expect and demand a more direct role in international, regional and national institutions. NGOs are going to play a bigger role in the UN either directly or through parallel but influential channels such as occurred at Rio. More experimentation and use will be made of inclusive means of consultation and consensus-building. Social innovation, building on our social capital, must invigorate our communities and our interactions.



The quest for innovation presents enormous challenges to knowledge-based institutions such as the International Development Research Centre and the universities. In IDRC's case, we see this as the challenge of putting knowledge into action -- building a global partnership of knowledge by strengthening developing countries' capacity to participate and contribute to creating and using it for development. For knowledge to be used requires that those using it "appropriate" it, assume ownership of it, and this requires capacity. And we will do what we can to link these efforts to Canada's own research capacity, to ensure mutual learning.

The 21st century could be -- more than this, it must be -- a time when human knowledge supports a new vision of global sustainable and equitable development. Let me end with two quotations. The first is from Harvey Brooks, one of the great senior statesmen of American science. In a recent lecture, he stated:

"We find ourselves at a unique moment in human history on the planet a time not only of unprecedented problems but also of unprecedented opportunities.....We are thus in a time of transition --- a transition leading either towards catastrophe and social disintegration or towards a sustainably growing world society"

The second quotation is from Barbara Ward who served on the Board of Governors of IDRC. Speaking a quarter of a century ago she said:

"The moral challenge of our day is nothing less than the ability of our civilization to use the technology of abundance to recreate, not destroy, the face of the earth."

Thank you for your kind attention.