LEVERAGING KNOWLEDGE TO END POVERTY

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EXECUTIVE SUMMARY:

Over the past couple of centuries, the world as a whole has made undeniable, and often quite dramatic, "progress" on many fronts—primarily attributable to the rapid accumulation of knowledge. However, this progress, manifesting itself as an unprecedented creation of wealth, has gone hand in hand with an unprecedented expansion of poverty, loss of societal resilience and destruction of the environmental resource base. The cause for this global dichotomy lies in the differential access to knowledge. To close that gap will require widespread access to new thinking that does not conform to the current, dominant paradigm. The best way to achieve that goal is to ensure that all citizens have the ability to satisfy their basic needs through sustainable livelihoods. This is where the small and medium enterprise sectors come in: market-based, profit-making businesses that are mostly small and generally local. In most economies, they happen to be the largest generators of jobs and livelihoods. New institutions that will facilitate their development are known as "*Community Ventures*". Aided by *"Network Enablers"*, these ventures are organizations that deliver basic services through business-like strategies encompassing both the for-profit and the not-for-profit varieties. Through these means, the gap should shrink as more people acquire the knowledge necessary to build capacity and exit poverty.

Over the past couple of centuries, the world as a whole has made undeniable, and often quite dramatic, "progress" on many fronts. People in scores of countries have attained unprecedented levels of health, wealth and knowledge. Diseases that were for millennia the scourges of whole nations have been conquered. Food production has grown to levels

inconceivable even a few decades ago. An ever growing range of products from industry is accessible to an ever growing range of customers. In addition, cheap sources of energy have made possible facilities for travel and communication that enable large numbers of people to live a life of convenience and comfort on a scale never known before.

The spectacular improvements that have occurred in our lives over this period are the direct result of an unprecedented explosion of scientific knowledge. Knowledge is, in fact, now widely recognized to be the primary factor at the root of the revolution in our material well-being.

THE PREMISE

However, this extraordinary progress has not come without cost. The unprecedented creation of wealth has gone hand in hand with an unprecedented expansion of poverty and human deprivation, loss of societal resilience and destruction of the environmental resource base.

A large part of the cause for this global dichotomy—historically unparalleled concentrations of wealth side-by-side with untold and unacceptable oceans of poverty and misery—lies in the differential access that people have to knowledge. Knowledge based on modern science gives such an advantage to those who already have it, particularly if they are already in a position of dominance, that it totally overpowers those who do not – whether in warfare or in the marketplace. To put this in a clearer perspective, one might simply ask what modern science or technology has done for the 1.3 billion people who still have to walk more than a mile from their homes to get clean drinking water. Traditional knowledge systems that had their own vast and time-tested value, serving humanity quite well for millennia are, now, completely impotent in the face of modern science, but will no doubt come back into their own in due course as the limits of the modern scientific method inevitably manifest themselves.

If the global economy is to flourish and the benefits it brings are to reach everyone on the planet, now and in the future, we will have to very substantially change the way we choose our technologies, design our institutions, particularly our financial systems, and relate to nature. A sustainable world will need a more socially just, environmentally sound and economically efficient form of development than the one being widely pursued today.

SUSTAINABLE DEVELOPMENT

To achieve a sustainable future, the developing world clearly has two priorities that must come before all others. The first is to ensure that all citizens have access to the means of satisfying their basic needs. The second is to evolve practices that bring the environmental resource base, on which their lives and futures integrally depend, back to its full health and potential productivity. To achieve these two primary goals requires action on two fronts. We must:

- create ***sustainable livelihoods*** on a very large scale, particularly for the poor and marginalized; and

- encourage ***sustainable lifestyles*** among all people, particularly the rich and privileged.

As major components of the overall objective of sustainable development, these two goals are simply another way of stating that every developing country, as indeed any industrialized one, must reorient its economy towards production and consumption systems that are sustainable. Furthermore, if the creation of jobs is one of the master keys to achieving this objective, enterprise is the keyhole.

Eradication of poverty and conservation of nature, however, need jobs and enterprises of a very different kind from the conventional ones of today. This task is complex and will not be easy: to get it done, societies need widespread access to deep and sophisticated knowledge.

Creating this body of knowledge and building the army of practitioners needed to use it for the benefit of all will require considerable financial support and consequently, a major redirection of current resource flows, which have served mainly to accentuate unsustainable outcomes.

SUSTAINABLE LIVELIHOODS

The Third World now has to create sustainable livelihoods on a very large scale. The developing countries need, among them, to create more than 50 million new jobs every year. At the same time, even in the poorest countries, the capacity of agriculture to absorb additional labor is rapidly diminishing.

Creation of livelihoods and jobs should, generally, be the job of the corporate sector. However, the corporate sector is not currently geared to creating jobs or livelihoods in Third World economies in the numbers needed. Besides, as decades of experience shows, the technology, financial and marketing imperatives faced by big business operating in a globalizing economy make it unlikely that they will, in a reasonable time frame, be in a position to do so. The compulsions of global competition encourage industrialists to invest in machines rather than people.

Secondly, and related to this, is the fact that, partly because of the mechanization ordained by the perceived need to be globally competitive, it costs a great deal of investment to create one workplace – a job for one person – in modern industry. Depending on the level of automation, the capital required to create one industrial workplace in an industrialized country can be anywhere between $100,000 and $1,000,000, *after* allowing for all the upstream and downstream jobs created as a result. Given the lack of infrastructure and basic supporting systems in developing countries, the costs there can also be very high. The requirement of such heavy investments acts as a major barrier to the creation of new enterprises in the formal sector and therefore to jobs.

Thirdly, competitiveness means delivering products demanded by the clients. Today for southern economies, this means either commodities or primary products at subsistence prices, or technology-based products that generate better surpluses when their manufacture is automated, or at least mechanized. Naturally, more and more emerging countries are choosing the latter, leading to the further takeover of jobs by machines.

A stark example of this comes from the so-called success story of India, a country that has been pursuing neo-liberal policies for fifteen years. During this period, the economy has reached new heights but the total number of persons employed in the corporate sector in India (including the BPO companies whose growth is perceived as a threat to Western jobs) – has actually gone down by some one million (from more than 11 million in 1991 to about 10 million in 2006).[1]

The point here is not that globalization is bad *per se* – or good. Rather, it is simply that the evidence, at least from India, does suggest that in this period of rapid economic integration, jobs are not being created at the rate needed to keep up with the growth of the labor force. Indeed, the indications are that certain kinds of jobs, including large industry and agriculture, are being *lost*, and that there continues to be a net addition of several million unemployed people every year.

In the meantime, the other formal sectors are not in a position to take up the slack. Despite the many political temptations to the contrary, governments at all levels have begun to cut back gradually on their payrolls. Civil society, with all its commitment and ambition to bring about a better world does not have the resources, the reach or the skills to create employment on a large enough scale.

Somebody else, then, will have to take responsibility for creating jobs and sustainable livelihoods. This is where the small and medium enterprise sector comes in: market-based, profit-making businesses that are mostly small and generally local. In most economies, they happen to be the largest generators of jobs and livelihoods.

Perhaps the most important, yet least understood, impact of large scale livelihood creation is on a nation's demography. Together with programs for the education of girls and women, sustainable livelihoods are probably the most effective stimuli for smaller families and lower birth rates. For the longer term interests of planetary health, it is in the interest of all, rich and poor, to accelerate the process by which the demographic transition to low fertility and, as a result, to low population growth is achieved in poorer countries.

SUSTAINABLE LIFESTYLES

Given that the ecological footprint of the world's economies has already reached 1.2—i.e., our use of natural resources now exceeds the earth's capacity to produce these resources on a sustainable basis by 20 percent—we clearly need to do something drastic and immediate. Consumers in the North now need to bring down their use of materials—according to one credible estimate, by a factor of ten. As much as half of this dematerialization can be achieved with technologies that are already available, without any

1 Confederation of Indian Industries

major change of behavior or human aspiration.[2] In industrialized countries, the full factor of ten is also probably not difficult to achieve by bringing together a combination of technology innovation to gain much higher resource productivity, modification of market mechanisms to ensure full-cost pricing of resources and some minor changes of behavior regarding such issues as miniaturization, product durability and sharing of physical assets. Dematerialization beyond a factor of 10 will require these kinds of measures, plus deeper structural changes in the economy, in industrial production systems and in consumption behavior and social aspirations.

However, here we are concerned primarily with removing poverty. The biospheric resources consumed by the poor are so pitiably small in quantity that, unquestionably, consumption of materials, energy, water and other resources will have to go up for a while before it can reach levels where a basic minimum standard of living is within the grasp of all. This is the fastest practical means for achieving the quality of life that can lead to the demographic transition needed to stabilize the world's population at the lowest possible level (which, unfortunately, will still be very high).

Improvement in the lives of the poor is essential not only to improve the prospects for planetary survival and for reducing the potential threats to the world's existing political and economic status quo. It is also necessary for ethical and basic human rights reasons. Take, for example, a simple and ubiquitous appliance, the wood burning cookstove, which is used in more than 200 million homes worldwide. The cookstove, as presently used, burns biomass fuels (mainly wood and animal dung) with very low levels of efficiency and with extremely high levels of emission (of poisonous gases such as carbon monoxide, sulphur oxides and particulates).

Recent studies have shown that some 1.5 million women and children die prematurely *every year* because of diseases caused by this source of indoor pollution.[3] In addition, hundreds of millions of women and girls could save several hours a day of walking to collect the biomass fuel they need if the efficiency of the stoves were to be slightly improved; a mission that is surely not as complicated as designing an intercontinental ballistic missile – but has yet to be accomplished.

At the same time, because of the numbers involved—nearly half of the population of the world—it becomes even more important for the Third World to pursue a path of development that employs the highest possible resource productivity in sectors such as agriculture, industry and habitat – and particularly in job creation. This entails the use of major innovations in technology and the institutions of governance and markets – all of which require highly sophisticated capacities for analysis, design and implementation. Such capacities (institutions and experts) are not common or cheap.

Furthermore, lifestyles and livelihoods are inextricably linked. Simplistic theories on how the global corporate sector could create a completely new market for its products by redesigning, recosting and repackaging them to suit the tastes and expectations of the poor

2 "Factor 4" by Ernst von Weizsaecker

3 U.S. Environment Protection Agency's Indoor Air Pollution Program and Daniel M. Kammen, University of California, Berkley

at the bottom of the economy miss the point that people must have the interest and the disposable income to be able to buy these products. In today's economy, purchasing power among the poor comes from income and income comes largely from taking part in the production process – unless job opportunities are created at the same time as the products, there can be neither buyers nor sellers for long.

Bringing about widespread adoption of sustainable lifestyles needs the concerted efforts of everyone in a position to influence social and behavioral change. Since neither those who run government in most countries (of whatever political party or administrative cadre), nor those in business have shown much inclination to provide such leadership, it must come from the others – namely civil society, which includes pretty well all organizations that are not in the government or private sectors. Although civil society hasn't, so far, fared much better in delivering the results needed than either government or business, it still offers some hope and could serve as an effective catalyst and the source of new institutional designs for building a better and more equitable world. By providing strong leadership, civil society could, in principle, position itself even to influence the practices of the public and private sectors.

SUSTAINABLE BUSINESSES OR COMMUNITY VENTURES

The new kinds of institutions required are actually local businesses or community based not-for-profits that can deliver goods and services that people in their communities need for their basic functioning—building materials, energy sources, water systems, clothes, microfinance, livelihoods—but find difficult to access locally or affordably. Such goods and services are not confined to tangibles; communities also need help in building up their knowledge of the world around them and their vocational skills, strengthening their ability to demand and get their entitlements under the law, and being able to take a full and active part in their economy and systems of governance. In the past, many of these services were considered the domain of public agencies or civil society. Often, they have not been delivered as effectively or as widely as needed. The new institutions proposed here are a kind of marriage between the small, local private sector, civil society and the public sector. We like to call entities of this type "***Sustainable Businesses***", organizations that deliver basic-needs products and services through business like strategies. They are also called, more descriptively, "***Community Ventures***", this latter term being better able to encompass both the for-profit and the not-for-profit varieties more easily. Both of the primary objectives for sustainable development — sustainable livelihoods and sustainable lifestyles — are also best met by the same Community Ventures – small, local, environmentally benign businesses or voluntary organizations that create jobs and generate products and services in the community. Such businesses are usually technology based, employ a small number of workers and can be highly profitable. In size, they lie roughly between the realm of what is often termed "small or medium enterprises" at the top end and "micro enterprises" at the bottom.

A Community Venture is not likely to be sustainable for long if it does not quickly master the art and science of making a profit. In a market that is widely dispersed, has virtually no infrastructure or regular supply chains, and tries to cater to clients who have virtually no money, this is not easy to do. Moreover, to operate successfully in it, the Community Venture needs considerable knowledge and skills on a variety of fronts:

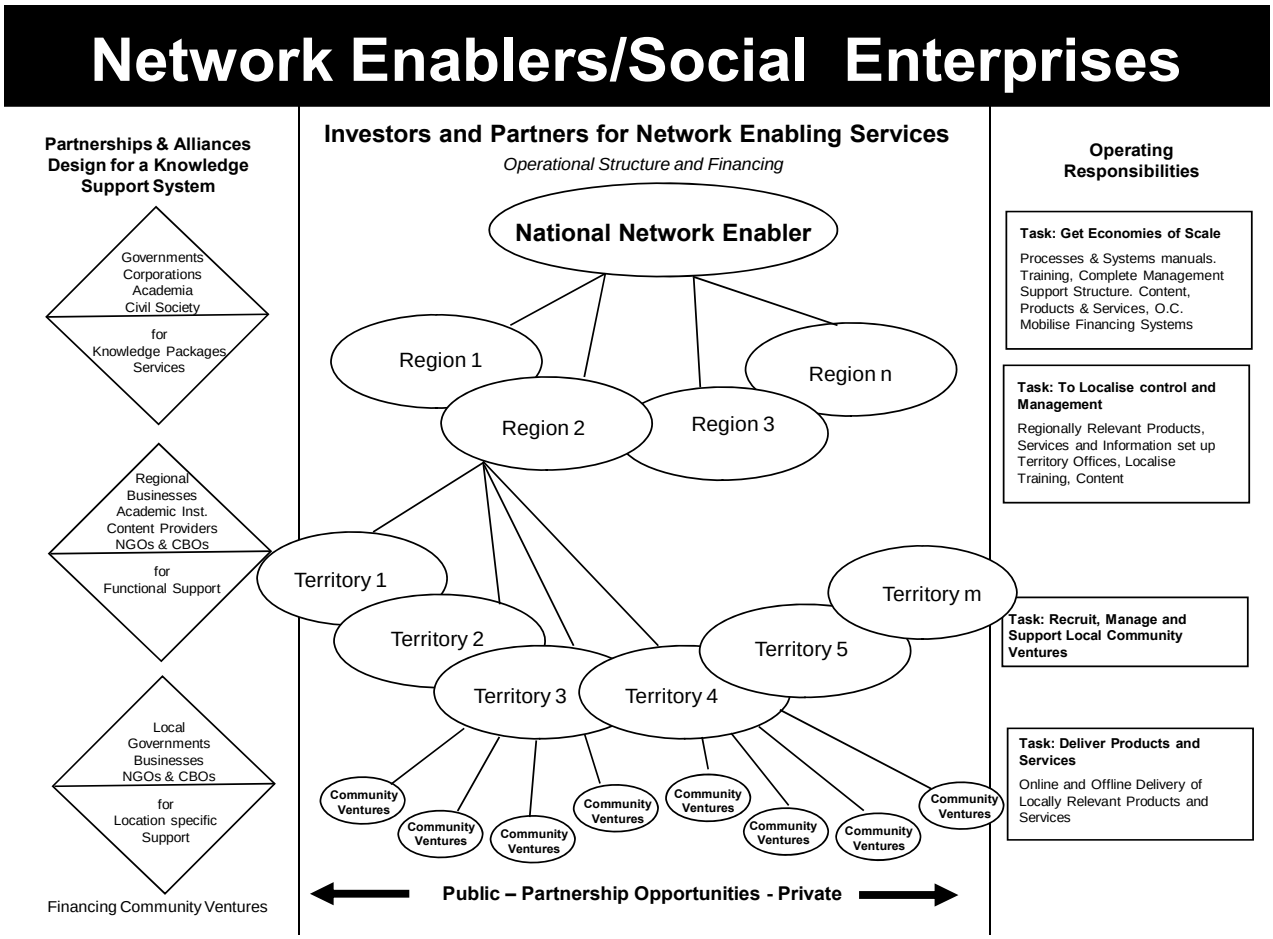
knowledge that takes time and money to acquire. It needs to carry out market research and develop a business plan. It needs to choose, acquire and master complex technologies. Once it goes into operation, it needs technical support to keep these technologies in good shape. It requires financing for fixed and working capital. It needs help in creating markets for its products. Such full spectrum support systems for sustainable enterprises do not exist in the Third World village economies. To succeed quickly in this marketplace, a Community Venture therefore requires support systems of many kinds. Fortunately, with recently introduced connectivity and the availability of the Internet, many of the knowledge-based inputs needed to run a successful venture are now more accessible than in earlier times.

NETWORK ENABLERS, A.K.A. SOCIAL ENTERPRISES

Thus, one of the critical elements in any effective strategy to deploy and nurture Community Ventures is the setting up of support (or "enabling") organizations that can provide such integrated services and assistance as are needed to make the local ventures profitable. These supports may be supplied directly from internal resources or through aggregation of inputs available from others. Such a support organization, which might be called a Network Enabler, has to bring both for-profit and socially-oriented motivations together in a seamless synthesis of services designed to help its partner Community Ventures succeed in the marketplace. Network Enablers are a special kind of Social Enterprise, perhaps the most important kind for scaling up the delivery of solutions to development-related problems. For local solutions to work, they need the same things as big business does: technology and know-how, training, finance, brand equity and marketing.

Many of these business supports are available at little or no cost to large urban industries. For Network Enablers similarly to be able to offer reasonably priced support services to their Community Venture partners, they themselves usually need financial support to cover the costs of initial investments in research, product design, and building its own capacity to deliver the services. This is probably one of the few types of subsidy that can be justified.

Network Enablers thus need external resource inputs, either from public funds or from philanthropic or social investment funding sources, for the capital investments so that the incremental costs of each unit of product or service can be brought down to a level that is affordable to the Community Venture, and therefore to the buying public. In addition, they need private sector inputs: operational financing, management efficiency and the ability to deliver results. In the longer run, realistic business analysis shows that even the dispersed rural market can provide commercially viable opportunities for many types of products and services, a fact that might be of interest to some companies with strategic interest in rural markets.



The nature of the rural market (particularly its dispersion and remoteness from major centers of economic activity) also means we must learn to adopt different time horizons, financing instruments and profitability expectations from those of today. After all, even in the U.S. with far higher purchasing power among its consumers, rural infrastructure such as electrification was achieved with financing at 1-3 percent, with repayment moratoria of several years and breakeven time horizons of 20-40 years.

By the nature of their work, Network Enablers and such social enterprises engage themselves in highly complex sets of issues, which need very sophisticated responses. They have to bring cutting edge understanding of business, economic, technological and other commercial issues together with considerable sensitivity to the social, cultural and political environment in which their Community Venture partners operate. They also need to perform at the highest levels of innovation and implementation – which in turn involves the very best in creativity and management expertise.

By way of example, Development Alternatives, a social enterprise dedicated to sustainable development, has operated several Network Enablers for some years. Two of them, representing the two ends of the profit-orientation spectrum are the commercial entities under Technology and Action for Rural Advancement (TARA) and its Internet franchised network TARAhaat, and the small grant-making facility under the Poorest Areas Civil Society Program (PACS).

TARA manufactures and markets technologies to rural entrepreneurs, who then supply basic needs goods and services to their local clients. These include cost-effective building materials, water and sanitation systems, energy systems, handloom textiles and other products needed for day-to-day use in the village. It is TARA's responsibility to ensure that the entrepreneurs get whatever support they need – technology, marketing materials and access to financing to become profitable quickly. TARA operates as a classic Network Enabler. Its subsidiary, TARAhaat has a growing network of franchised entrepreneurs who operate local cyberkiosks and supply a wide range of products and services such as vocational education, insurance, renewable energy devices, etc. to village clients.

PACS, on the other hand, services a network of NGOs and Community Based Organizations (CBOs) by providing project grants and wide ranging support services. PACS was funded by the UK Government's Department for International Development (DFID) and has been disbursing some $10 million per year for the past six years. Its mode of operation is entirely knowledge based, aimed at building the capacity of local civil society organizations to deliver the highest quality services.

The experience gained from these Network Enablers and their partner Ventures in the field is the basis of the analysis in this paper.

RESOLVING THE CONTRADICTIONS IN THE RURAL MARKET

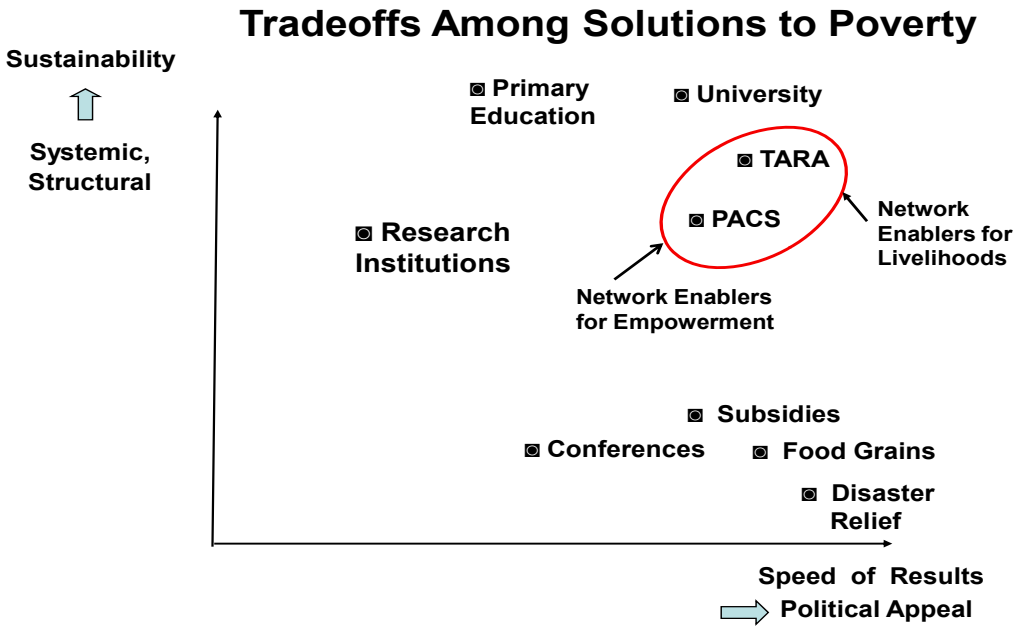
Servicing the rural markets of the Third World is not easy; if it were, it would have been done on a significant scale by now. The reasons for the intractability of this market lie in three fundamental contradictions that make it difficult or unattractive for conventional types of initiatives:

- **Contradiction #1: Financial**
  The costs of delivering products using conventional methods of delivery are very high and the purchasing power of the end customers served by local businesses are very low. A good solution to this lies in the Network approach, where the Community Venture is a kind of franchise and the Network Enabler becomes the franchisor. By selling standardized products, purchasing raw materials or goods in quantity, having access to financing and technical support and building up a brand image, the Network can do together what a single business operating in a remote village cannot.

- **Contradiction #2: Institutional**
  The objectives that need to be met to improve lives in a village community are largely driven by social considerations—basic needs, human rights, participation of women—and are best dealt with by not-for-profit organizations or local businesses. The strategies needed for scaling up are largely commercially oriented. Resolution of these conflicting requirements lies also in a knowledge-based partnership between the Network Enabler and the Community Venture. Keeping the different motivations of the organizations separate and setting up systems of interchange based on mutual respect can be a very effective method for delivering socially desirable products and services on a very large scale.

- **Contradiction #3: Economic**
  Apart from low priced food, the rural economy, and particularly rural industry produce little of interest to the national-level decision makers, who mostly live in the city; innovation, financing or other amenities of concern to the rural venture therefore get little or no attention. By bringing the strength of the whole Network, the Enabler is able to mobilize national resources, including much needed knowledge resources, to address the problems faced by the rural venture.

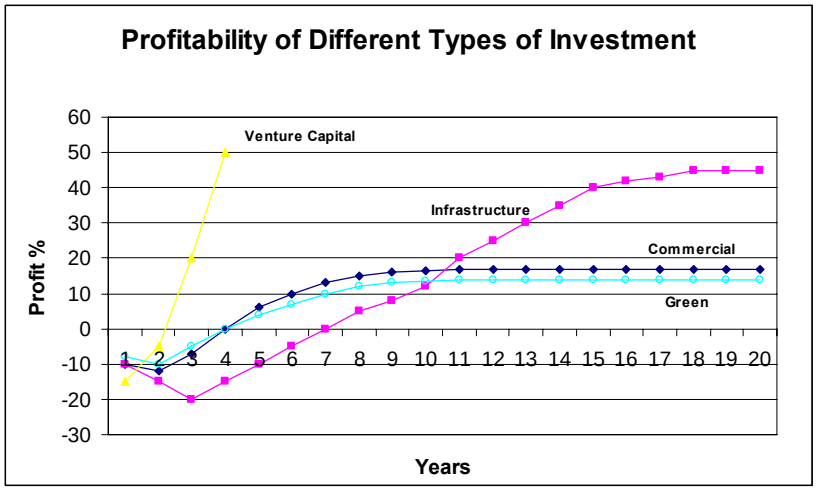
- **Contradiction #4: Political**
  Governments, who normally bear primary responsibility for issues of sustainable development, and particularly for social justice and empowerment of the poor, have short time horizons limited by electoral and constituency considerations. They therefore tend to focus on those issues that bring quick political gains. Network Enablers are generally less influenced by the kinds of considerations that encourage governments and businesses to make decisions based on short term calculations. It is no coincidence that much of the deep societal change witnessed over the past century—universal suffrage, civil and human rights, right to information—has been the result of civil society action amplified into people's movements by Network Enabler-type entities.



INTEGRATING THE PUBLIC AND THE PRIVATE

In evolving the institutional framework to deliver products and services cost-effectively to the rural market in India, which is not atypical of rural markets in any developing country, Development Alternatives and its affiliates such as TARA and PACS, which have already been referred to above, have found it necessary to mix the public and the private – something that is contrary to any conventional institutional design theory. The practical breakthrough lies in clearly separating the objectives from the strategies. In

addition to commercial viability, the objectives for such an enterprise are primarily social, environmental and developmental. The strategies and methods used to achieve them, on the other hand, are purely business. That means we need sources of capital that can accept longer time horizons for achieving profitability and possibly lower profits than are sometimes available in the market.



The chart shows how the expectations of different types of investors vary. Conventional venture capitalists are primarily interested in very high and very quick returns. Capital for infrastructure usually comes from cash rich, deep pocketed investors who are looking for high returns but are willing to wait for them. Regular, commercial investors—including banks and financing agencies—usually want return on equity a little above the bank interest rates, starting after the breakeven period, which is usually expected to be around three to five years. "Green" or "socially responsible" investors also expect good returns on their investments, but are prepared to accept somewhat longer time horizons and take lower dividends.

There is considerable justification for initially funding "Network Enablers" in the form of grants and donations, since the earning capacity in the first establishment phase can only be very small. However, given the potential size and voracious appetite of this market, venture capitalists with a little imagination and a longer view would find all the returns they could wish for by investing in it.

Until such a realization becomes widespread among the private sector, the onus will be on the social enterprise sector, the business-like end of civil society, to carry the war against poverty and environmental destruction forward.

THE ROLE OF PHILANTHROPY

Sustainable development needs process based approaches allowing for longer time horizons and the use of more holistic planning tools that can deal with intangible side benefits; result-specific, time-bound projects often cannot address these.

There is now a growing understanding that conventional, project-based development needs to be redesigned so as to promote the building of local capacity, which will remain to continue the work after the external intervention comes to an end. Very few international development programs or practitioners have systematically followed such an approach in the past.

Simply defined, "capacity" is people who have the ability, backed by the decision systems and infrastructure they need, to identify, formulate and analyze the problems of high relevance to their societies and design effective strategies to solve them. To be effective, such capacity needs to be built up in all sectors and levels of society. Genuine development can only take place when a local community acquires capacity to design and create its own future. Capacity is synonymous with informed leadership in all walks of life, plus of course, institutional and physical infrastructure.

Yet building up capacity throughout the economy takes considerable time and resources. The quick way to simulate its impact is to build up the types of Network Enablers described in this paper. This needs a completely new approach generating, disseminating and using knowledge. To compress a process that took decades and even centuries in the West into a period of years will require partnerships of the type described earlier in this paper.

Such partnerships do not come easily to any of the sectors. Each of them has learned over long periods working largely in isolation from the others to find comfort in continuing those practices. This sense of comfort is heightened by the myths each has of themselves and the others – about accountability, effectiveness, motivation and trustworthiness. Each sector considers the others "incompetent" or "efficient" at best or, more often, "exploitative". Some of the limitations are genuine: rigid bureaucratic procedures can kill motivation to produce results just as effectively as lack of technical or management skills or access to financing can kill the ability to scale up. Additional resources are needed for partners to create workable partnerships. This is where philanthropy comes into its own.

Philanthropy appears in many different shapes and sizes. Corporations as well as individuals give philanthropic money. Individual philanthropy in turn can come from high net worth (HNW) individuals or from middle class individuals. It is guided by almost as many different motivations as there are philanthropists. These motivations can range from taking advantage of legitimate tax deductions for philanthropic giving, to a recognition of higher moral purpose and the unity of all life.