Effecting a Social Transformation

A NEED FOR SOCIETAL FOCUS

The aim of a sustainable development system is not confined merely to generating higher incomes and a better economic growth. The evolution of such a development is complete only when the monetary benefits can translate directly into human development; be reflected in literacy and health care; and result in the reduction of poverty and eliminating other conflicts in a society. Such a planned system, with close integration between incremental income and capacity-building, is the key to creating happy and prosperous societies.

THE GAP IN RURAL–URBAN AMENITIES

Across the world, whether in developing or developed nations, rural areas lag in terms of providing basic amenities with quality and consistency. Most public and private employees in India—as in most of the world—find rural postings equivalent to a reprimand, with leading doctors and engineers doing their best to remain in cities. This lack of amenities has its effect first and foremost on rural talent itself, when the search for education or skill-building is often the first step towards migrating to urban regions. Table 5.1 shows the divide in literacy levels across a select group of nations around the world, while Figure 5.1 graphically represents how sharp the rural–urban divide is with respect to access to basic sanitation facilities. A similar divide would exist in any amenity that one might consider.

TABLE 5.1: Literacy levels in urban and rural areas

Country	Rural	Urban
Bangladesh (1991)	30.4	62.3
Brazil (1991)	68.9	89.3
China (1990)	73.8	88.0
Morocco (1994)	20.7	58.9
India (2001)	59.4	80.3
Pakistan (1998)	33.6	63.1

Source: UNESCO Statistical Yearbooks

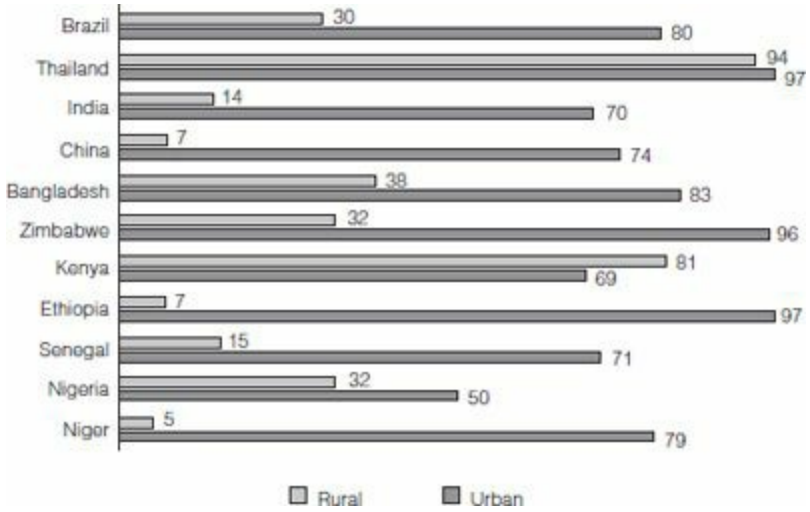

FIGURE 5.1: Access to sanitation facilities in rural and urban areas

Source: International Fund for Agricultural Development (IFAD) *Rural Poverty Report 2001—The Challenge of Ending Rural Poverty*

It is a well-known fact that the basic human amenities of health care, education, sanitation and access to goods and services are the fundamental building blocks for empowering rural regions. Their coexistence with augmented income levels through enterprise or job creation is paramount to the sustainability of the initiatives. Skill and talent cannot be sustained in rural complexes without creating social assets.

THE LINKAGE BETWEEN ECONOMIC AND SOCIAL ASSETS

The concept of a PURA is fully achieved only when there is a dynamic linkage between economic development and social and cultural transformation in real time and in a seamless manner. What this means is the realization of the following two dynamic scenarios:

1. All income-generating activities which lead to the better economic condition of households should be matched by the creation of social assets in which the excess income can be invested for building a better life and hence, for capacity-building.
2. As capacity-building occurs in terms of knowledge and skill, economic development has to evolve dynamically in order to provide employment or entrepreneurial opportunities for a workforce with a higher set of skills, and to accommodate the expansion of the existing set of skills. With economic empowerment and access to social assets and amenities, a gradual cultural change and moral upgrading will set in.

The two aspects—income generation and capacity-building—will be cyclic and will reinforce each other to promote better living standards for all in the PURA complexes.

We can visualize a typical empowered household in one of the PURAs at Warana in Maharashtra.* It is a complex with a cooperative sugar and milk industry, a retail chain, a hospital, schools and colleges. I visualize a joint family household owning about 10 to 12 acres of land where sugar cane is being cultivated and then processed in the cooperative factory. The women of the house are active and skilled members of the cooperative network which manages the various retail outlets across the region. The children receive quality education in the Warana schools and the youths of the house are students of advanced learning available locally in the Warana engineering, medical or commerce colleges. Through the local retail outlet, the household has access to all the best quality products

available in any of the cities and to health care in the hospital. Since the household is technologically empowered through the network of cooperative enterprises, it is economically independent and able to avail of the services. It has access to clean drinking water and nutritious food; the children use modern technological tools for e-learning, through the Internet; and the farmer-parents practise advanced methods of agriculture for improving the yield and sustainability. Every member of the family is empowered, knowledgeable and productive.

This is the goal of sustainable development through PURA. Every rural household in the world needs to be propelled into becoming an empowered household on the lines of Warana or any other PURA. Let us analyse at the macro level the relationship between economic activity and social transformation which would be the basis for developing a strategy for integrated growth.

Beginning with the scenario of a typical rural complex, the economic empowerment would have to be initiated in such a way that it is inclusive of the marginalized sections of society who participate in it. The economic empowerment and additional income will spur the demand for better nutrition, better education, better health care and other amenities and services. This will create a demand for service industries and capacity-building. Carefully planned, this new demand will start creating more value-added jobs. The pace of social transformation will keep on accelerating and will match the economic development. Due to the economic and social empowerment, there will be a gradual cultural shift—towards respect for women and their empowerment, as also that of the economically and socially marginalized sections.

Up to a certain point, there is a need for external investment and support, but after that PURA's rural complex becomes sustainable, both in terms of economy and the augmentation of capacity and services. Furthermore, the development of skills and the augmentation of knowledge become sufficiently stabilized for high income value addition and enhanced yield production and services. Also, there will be a significant increase in opportunities for employment beyond mere agriculture, with more than two-thirds of the jobs in areas of value addition, knowledge, technology and services. This would be the state of a self-sustained society, where the society's culture would be further refined to a state of spiritual growth and moral upgrading, and lead to the emergence of enlightened citizens who will strive for a conflict-free society with peace and prosperity for all.

TECHNOLOGY FOR LOW-COST EXTENSION OF HEALTH-CARE SERVICES

Technology can be a great tool for the extension of vital services to those who have still not been reached. *Businessweek* has highlighted an invention by an Indian company, Neurosynaptic Communications, that has the potential for bringing about a convergence of IT and health care, and which can act as a tool for extending health-care services at marginal costs to remote regions. This is done through a small and portable medical diagnostic kit which would cost about $300 (Rs 14,500) and is capable of carrying out vital tests like taking temperature, pulse, blood pressure and electrocardiograms. It can then almost immediately transmit the results from remote regions and villages back to the main hospitals using modern IT. All this can be achieved at a marginal cost, from $0.38 (Rs 18) to $0.66 (Rs 32), about one-tenth of what it would cost if done in a regular clinic.

This is one example of how technology can bring down costs and greatly increase the scope of basic services. If about five such units were mapped—through a network of health workers—to a centrally posted doctor, the reach of a single doctor could be increased manifold. Such a device can also increase the speed of extensive health insurance, preventive health care and the primary-impact assessment of initiatives—the benefits of which would vastly help the needy across the world. When we are dealing with the issues of half the population of the world, low-cost technological extension of existing services has to be a focus area.

Source: 'A Rural Health Clinic in a Box', Special Report, *Businessweek*, November 2007

INDIA'S CURRENT AMBIENCE: CREATING SOCIETAL AMENITIES

It is often assumed that economic growth eventually trickles down to the needy, leading to their uplift. This assumption, in many cases, may fall apart as the needy are left with little capacity-building and a low level of skills to fend for themselves, to have increased incomes, even to obtain the basic necessities of life—food, medicine and clothing. In the absence of avenues to convert additional income into measures for capacity-building, the growth of the family is not sustainable. Let us analyse this typical situation, the 'low-capacity trap', as depicted in Figure 5.2.

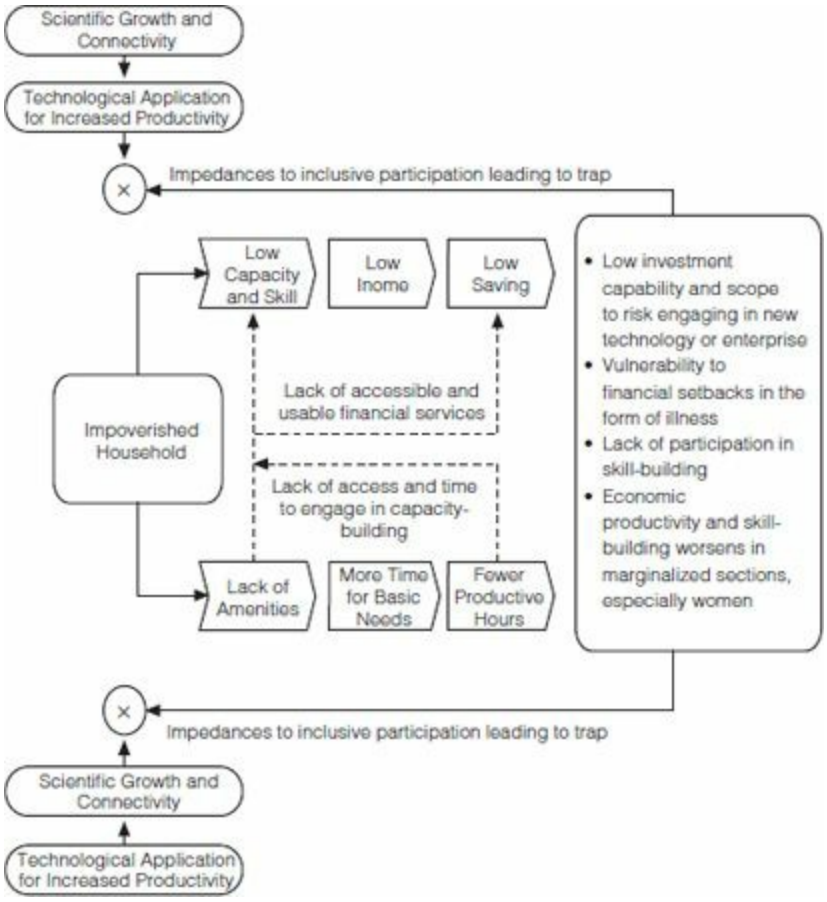

FIGURE 5.2: The low-capacity, low-income trap

Let us take the situation of an impoverished family with low skills, poor education and vulnerable health due to the lack of amenities, and all this will almost certainly translate into a low income. A low income and vulnerability to disease mean severe obstacles to savings, which may be compounded by a lack of finances. A lack of amenities like water, a lack of harmony in society and a lack of access to energy result in a disproportionately high time being spent in daily, mundane activities to provide food, shelter and other necessities to the family, thereby lessening the number of economically productive hours, especially for the women of the household.

The combination of lack of amenities and the inability to pay for them makes the family vulnerable to a variety of sufferings, especially those caused by poor weather or disease. This leads to the creation of 'have-nots' who can potentially be trapped for generations in the low-capacity trap.

Add to this the severely restrained access to sources of information, which is also a consequence of poverty—because information comes at a price, both monetary as well as in terms of time. In a dynamic world, poor access to information can permanently put one in the first gear, left far behind from progress, prosperity, technological benefits and deprived of even one's basic rights as a citizen to perennially grapple with problems whose solutions are perhaps only a 'few clicks away'.

In a multidimensional problem, single-focused solutions do not work. To avoid the trap, and to achieve the objectives of sustainable development, it is necessary to have an integrated, spontaneous and synchronized solution.

One of the commonest answers to poverty and deprivation has been a regrettable regime of subsidies and free handouts, which may be as wide-ranging as foodgrains and colour televisions. The schemes are due to political as much as to social considerations.

Subsidies, in whichever form, are merely relief measures—quick fixes and temporary measures to settle pressing issues. But subsidies and freebies can never offer solutions that will ultimately empower citizens, especially the needy. They only succeed in creating dependency on external sources, beyond one's means and controls. The goal of sustainable development is to create empowerment as a solution, and this demands thinking and planning beyond subsidies—direct or indirect. That is the only way to create empowered citizens, empowered villages, empowered cities, empowered states and, ultimately, an empowered nation.

This approach to sustainable development has to cover aspects far beyond that of creating income alone. It would encompass capacity-building through quality education and health care which enable better usage of entrepreneurial opportunity or employment as a skilled workforce. It would simultaneously include the setting up of better services like banking to boost the saving potential, and retail for better access to modern products. Furthermore, amenities at the doorstep, like clean drinking water, nutrition and basic health care have to be provided, access to information be improved and a sense of social agreement has to be fostered. The result would be more productive hours per day, leading to a higher income and savings. An increase in savings—accompanied by financial tools like insurance—would give greater stability and eliminate the vulnerability, with sustained prosperity and a better life.

The opportunity that beckons India is to make optimal use of technology, management, entrepreneurship and investments to overcome the challenges of this decade and beyond. Yesterday's goals cannot be a benchmark as India contemplates graduating to the company of the developed nations of the world. Our targets must be higher, our coverage more inclusive and above all, the methods to achieve must be unique.

Since Independence, India as a nation has indeed made massive progress in almost every social and economic field. But, as we strive to have an economically developed nation by 2020, each incremental step opens up new vistas before us. After every few pages, we mark our place in history, heading for a new chapter of challenges not experienced earlier.

Following a steady decline in world income—from about 33 per cent in 0 CE to around 25 per cent in 1600 CE—India's share declined even further during the British Raj, falling sharply from about 16 per cent in 1820 CE, to less than 4 per cent at the time of Independence (see Figure 5.3).[1]

Since Independence, there has been a steady rise in income, and the per capita national product has increased by more than five times, from Rs 5,700 in 1950 to about Rs 32,000 in 2008,[2] and today, India's share in world income—purchasing power parity (PPP)—stands at about 6.3 per cent.[3] But while the economy has been growing steadily and poverty, as a percentage, declining steadily, the absolute number of people below the poverty line has been constant. In fact, as Table 5.2 shows, from 1973 onward, the percentage of people living in poverty has reduced to half—from 55 per cent to 27.5 per cent—but the absolute number of BPLs has been more or less constant at around 300 million. The problem has been a lack of integrated amenities, which could empower the households and propel them sustainably into higher income levels and capacity.

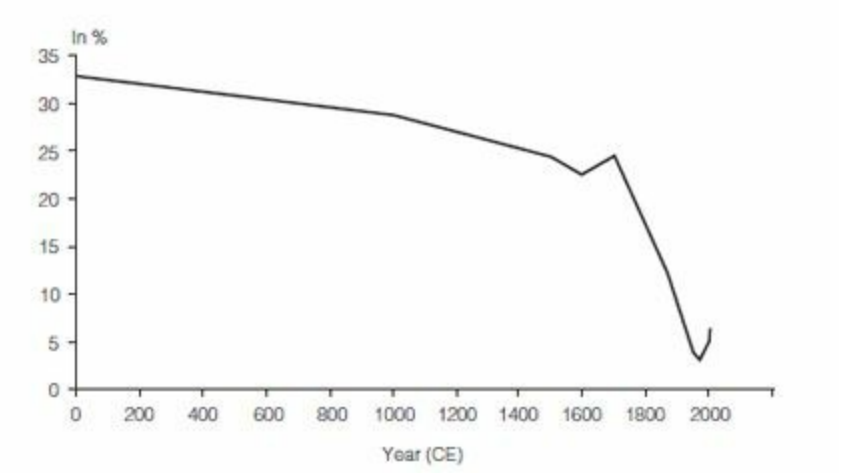

FIGURE 5.3: India's share of world income

Source: Derived from data in 'Review of *The World Economy: Historical Statistics* by Angus Maddison', Bryan Haig, 2005.

TABLE 5.2: Poverty in India through the years

Year	Poverty Ratio (as a percentage of the total)			Absolute Number of Below the Poverty Line		
	Rural %	Urban %	Total %	Rural *Million*	Urban *Million*	Total *Million*
1973–74	56.4	49	54.9	261.3	60	321.3
1977–78	53.1	45.2	51.3	264.3	64.6	328.9
1983	45.6	40.8	44.5	252	70.9	322.9
1987–88	39.1	38.2	38.9	231.9	75.2	307.1
1993–94	37.3	32.4	36	244	76.3	320.3
2004–05*	28.3	25.7	27.5	220.9	80.8	301.7

* Using a uniform reference period hence comparable to the 1993–94 estimates.

Source: The Planning Commission of India[4]

Literacy rates increased almost fourfold, from 18 per cent in 1950–51 to 64 per cent in 2001[5] and to 74 per cent in 2011.[6] India has a larger English-speaking population than any other nation in the world[7] and, depending on this segment, industries like BPO (business process outsourcing) are

flourishing. But the stark reality presents a disturbing picture when it comes to the quality of education, especially in rural regions. The ASER (Annual Status of Education Report) 2009 reports on the performance of Indian rural children in linguistic and mathematical abilities show some alarming results. The report states that, out of rural students in class five, as many as 47.2 per cent are unable to read the texts of class two, and 62 per cent are unable to divide two numbers.[8] As we target at 100 per cent enrolment of children in schools, the quality of education will remain a focal point. The purpose of education is reflected in the children's learning and not the act of teaching. Moreover, there needs to be additional focus on vocational and higher education and the acquiring of skills that are of international quality. As a nation develops, it requires more scientists, more technologists, more doctors and more workers with multiple dimensions. With half of India's population still young, and one-third in education, this is a great opportunity that the twenty-first century presents to us and other developing nations—an opportunity we cannot afford to miss.

We have stated these issues in the context of India. However, the fundamental concerns are shared, in varying degrees, by almost all the nations of the world. PURA's sustainable development system would have to face these challenges and harness the opportunities for building stronger societies and economically developed rural regions across the world.

CREATING A SOCIETY BASED ON KNOWLEDGE AND SKILLS

At present, India's university education system contributes more than 2 million graduates and postgraduates every year,[9] while students seeking employment after completing class ten and 10+2 total about 7 million per year. Thus, nearly 10 million youths enter the employment market every year. In the twenty-first century, India needs a large number of talented youths with higher education for acquiring, imparting, creating and sharing knowledge. There is a vast gap in the availability of employable skills.

To bridge the gap, an interface is needed between the school curriculum and the needs of the three sectors of the economy. Moreover, with 70 per cent of youths[10] residing in the rural areas of the nation, it is important to focus on opening avenues for developing skills at the rural level.

At present, India has 550 million youths under the age of twenty-five, and this number will continuously grow till the year 2050. Keeping this resource in mind, universities and educational systems should create two cadres of personnel, both at the rural and the urban levels:

1. A global cadre of skilled youths with specific knowledge of special skills
2. A global cadre of youths with higher education

These two cadres will be required not only for powering the manufacturing and services sectors of India but also for fulfilling human resource requirements of various countries. Thus, universities and the secondary school education system will have to work towards increasing the output of the higher education system from the existing 11 per cent to 20 per cent by the year 2015; to 30 per cent by the year 2020; and to 50 per cent by the year 2040, with quality education centres spread across the nation.

The population not covered by the higher education system should have the opportunity to acquire

world-class skills in areas such as construction and carpentry; maintenance and repair of electrical and mechanical systems; fashion designing; paralegal and paramedical services; accountancy, sales and marketing; maintenance and servicing of software and hardware; and ensuring quality assurance in software and hardware. No youth should be without either world-class higher education or without world-class skill sets. This is the mission that must be undertaken by the sustainable development model for the twenty-first century.

CHALLENGES IN HEALTH CARE AT THE RURAL LEVEL

We see life expectancy reach sixty-three years now. A newborn today can have a life twice as long as that of a child born in 1950.

The top end of Indian health care carries an international stamp of quality at minimum cost. It has seen a continuous double-digit growth in the medical tourism sector, and is expected to reach $2 billion (about Rs 9,600 crore) by 2012.[11] But the challenges of this decade are, more than anything else, to reach the goal of 100 per cent access to the basic amenities of sanitation, clean water and nutrition, and of bringing down the Infant Mortality Rate (IMR) and the Maternal Mortality Rate (MMR) to less than one-third of the present rate. In absolute numbers, even today India sees more infant deaths than any other nation (Figure 5.4), a situation that has to be tackled with determined action by all stakeholders. The realization of an economically developed nation will be complete only when we are able to set up development systems which guarantee access to preventive and curative health care for all.

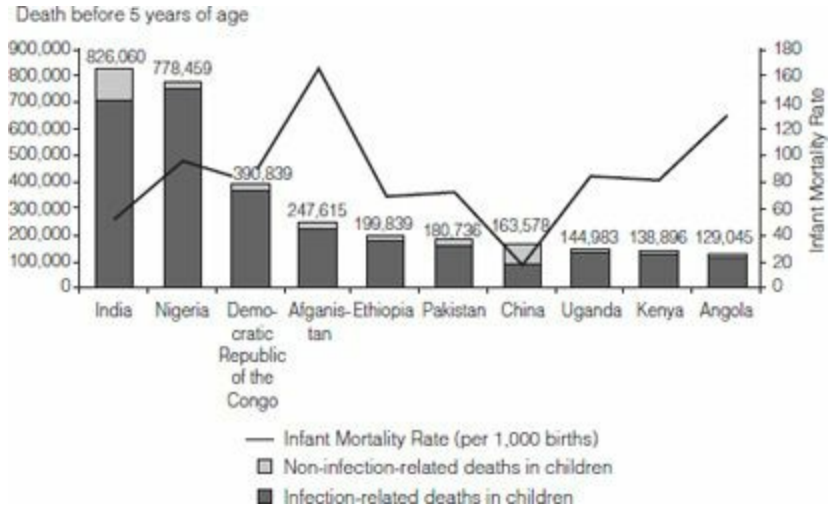

FIGURE 5.4: Rate and causes of infant mortality

There is a need to ensure that all forms of service are carried out in an entrepreneurial manner, which would not only ensure job creation but also ensure that the benefits reach the intended targets without leakages. Only then will the investments made by the public or the private sector have a meaningful and measurable impact.

Now we will discuss the new approach needed which would become the hallmark for achieving the goal for sustainable development in this decade and beyond.

Above all, there is an oft-cited issue of lack of coordination and synchronous delivery. This has to

be overcome by an improved supply mechanism and the empowerment of the intended beneficiaries.

Let us take the case of health care. It is estimated by research groups that the poorest 20 per cent of the population capture only 10 per cent of the total net public subsidy provided by clinical services as shown in Figure 5.5. Moreover, it can be seen that the top 20 per cent receive more than thrice the subsidy received by the bottom 20 per cent.

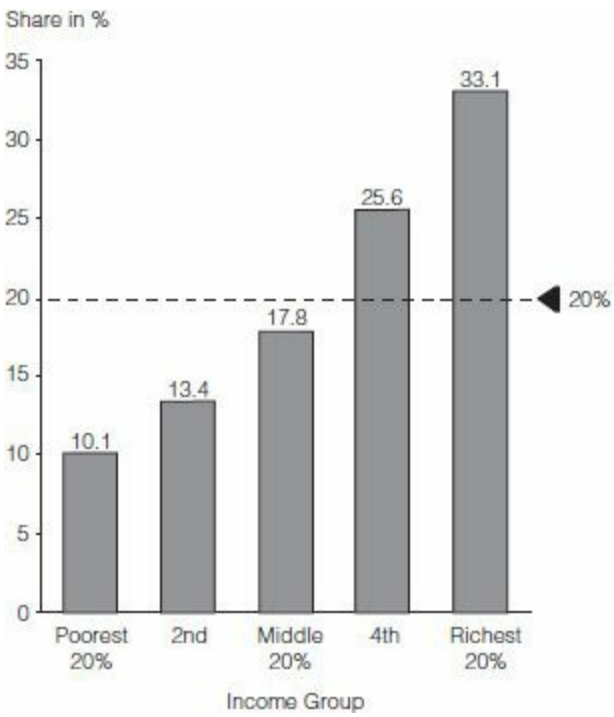

FIGURE 5.5: Share of public subsidy for health care according to income group

Source: Derived from World Bank data, 2001

NUTRITION IS A MATTER OF CONCERN

The National Family Health Survey (NFHS)—3, released in 2007, points out the fact that even now, almost 46 per cent of the children born in India, that is, every second child, is malnourished. The Global Hunger Index of 2009 ranks India at 65th position in terms of nutrition.

Country	GHI Rank (2009)	% in Hunger (2009)
China	5	5.7
Morocco	7	5.8
South Africa	14	7
Thailand	22	8.2
Ghana	28	11.5
Sri Lanka	35	13.7
Mali	52	19.5

Sudan	53	19.6
Kenya	56	20.2
India	65	23.9
Bangladesh	67	24.7
Rwanda	70	25.4
Zambia	72	25.7

Source: 'The Challenge of Hunger: Focus on Financial Crisis and Gender Inequality', Global Hunger Index, 2009

CREATING AN OUTCOME-ORIENTED APPROACH AND AN INTEGRATED PROBLEM-SOLVING OUTLOOK

The sustainable development systems of the twenty-first century will have to evolve a new approach to the creation of societal goals. The PURA sustainable development system would have to comprise social enterprises driven by the outcome, whose success could be measured in terms of the objective and the visible parameters, rather than merely the successful laying out of a certain infrastructure. Thus, the societal goal of PURA can be achieved only when all the stages—planning, creation, awareness, usage and feedback—are completed.

There is a decidedly higher level of challenge in this approach of shifting our categorization from the outlay to the issue. Most of the challenges posed by a societal transformation are not elementary in nature but a mixture of many different fundamental social amenities. As a societal system, those who implement PURA will have to act as social engineers rather than mere creators of assets. They will have to generate a sound understanding of the linkages within the various issues and evolve strategies which will take into account all the underlying causes. The linkages between social problems go deep and sometimes may not be that apparent.

Let us take an example. Figure 5.7 plots the IMR, that is, the number of deaths per 1,000 new births, with the fertility rate for women (the number of births per woman) for 175 countries from around the world (figures for 2005).[12] Notice the significant linkage between the two aspects of society. It arises out of the fact that when the IMR (and the child death rate) is high, there is a pressure on women to give birth to more children to cover the risks of child deaths.

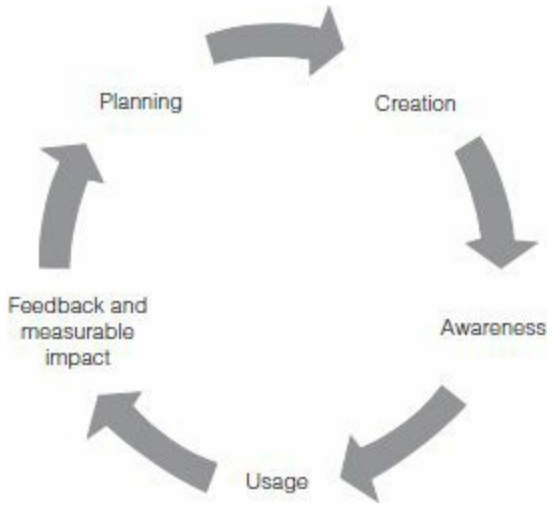

FIGURE 5.6: Stages in achieving the goal of a PURA system

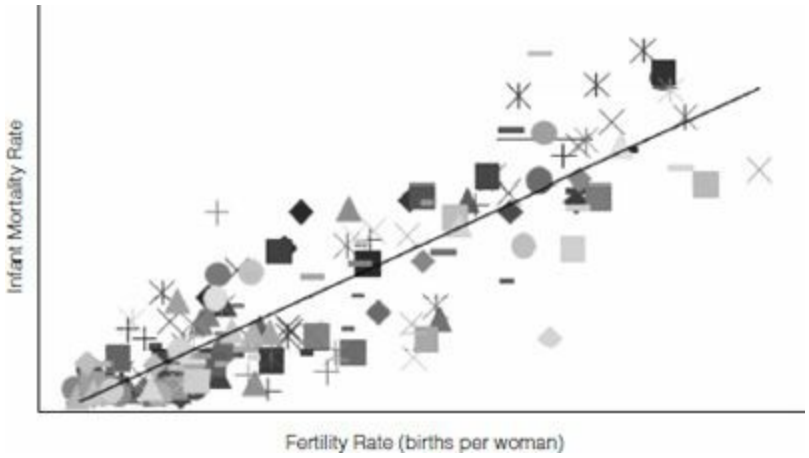

FIGURE 5.7: IMR and fertility rate (global)

Those implementing PURA need to take this up as a societal mission and give deep thought to it. There is also a logical linkage between the fertility rate, the population growth rate and the family size. A big family with a limited income means less money to spend per child which, in turn, leads to poor education, possible malnutrition and disease, especially for the girl child. The family has to ration its resources for education and health care, which leads to more dropouts in schools and chronic illnesses at later ages.

Figure 5.8 is specifically in the context of India. The curve plots the fertility rate vis-à-vis the female literacy rate in India after Independence. Notice that there is a direct and unambiguous correlation between the rise in female literacy and the reduction in fertility. The purpose of pointing such data is to highlight how our societal challenges are associated with each other. When our challenges are interlinked, the solutions to them too have to be integrated.

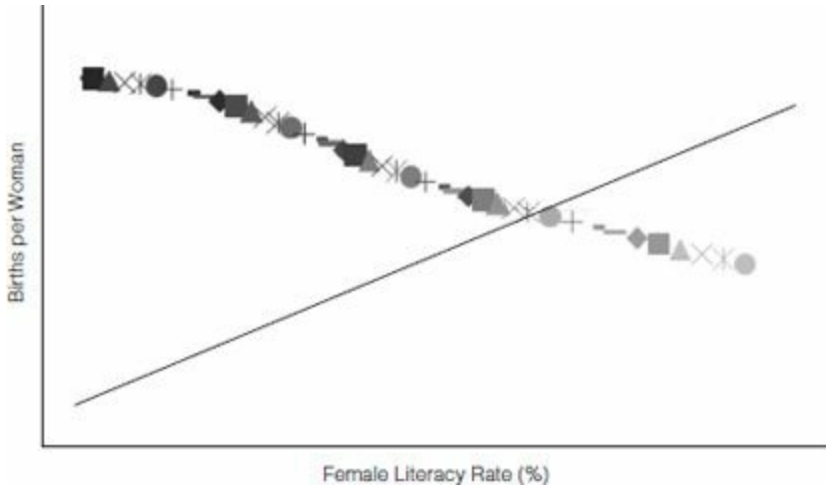

FIGURE 5.8: India: Female fertility rate vis-à-vis female literacy rate

The cycle would naturally be interlinked and would encompass many aspects. The societal mission of PURA would be based on this social re-engineering and an understanding of the underlying causes. So, if there is a pressing need to reverse the number of dropouts, the short-term plan would be by way of giving incentives, while the long-term solution would lie in re-engineering a host of societal assets.

Of course, this would have to done in an order of priorities.

A summary of the impedances and possible remedies is summarized in Figure 5.9.

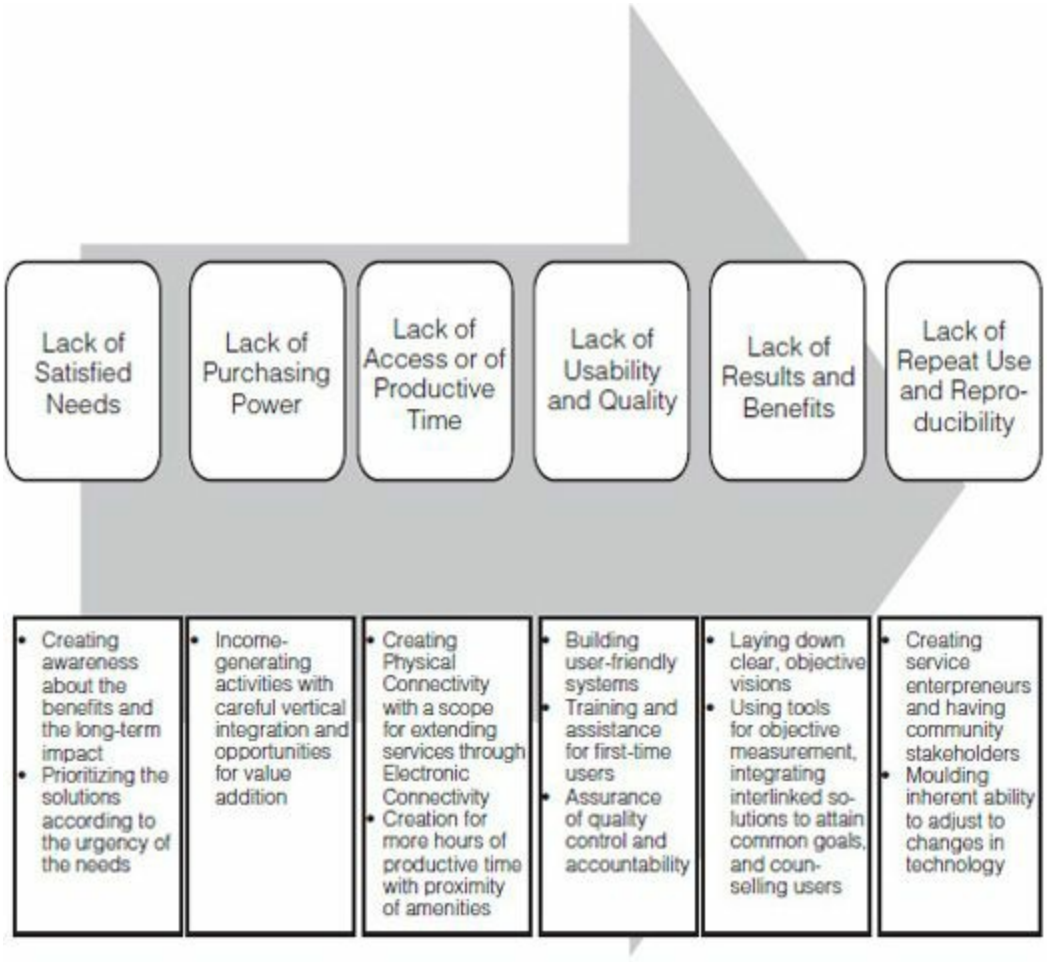

FIGURE 5.9: Major impedances and their solutions in the integrated

A NEW GENERATION OF SOCIAL ENTREPRENEURS

Our aim is to develop human resources with a value system and entrepreneurial skills and, at the same time, ensure affordable amenities of a minimum quality standard for all. The question is: Who can do it?

THREE BROAD APPROACHES TO DEVELOPMENT

The world over, agencies have been engaged in many different methods of development, in the government, the private sector or a combination of both. These initiatives have met with varying degrees of success and failure.

What makes them work? How do they differ from each other?

Let us try to analyse some broad outlines. We will categorize them into three distinct classes.

Illusory approach: At times on purpose and at other times inadvertently, many initiatives taken around the world in the name of social transformation are completely tangential and poorly coordinated, but the expenditure incurred on them gives the illusion that efforts are being made. Besides being quite expensive, they are also futile in view of the fact that little is being achieved at the ground level. There is hardly any relationship with the receiver—who is extraneous to the system—and the initiatives themselves are highly hierarchical in their structure with little accountability.

Quick fixes: Quick fixes are probably the commonest and the most frequently applied approach—they are like firefighting measures for instant relief from a particular problem or issue without much being done about the real causes and stresses. They are often makeshift measures to hide the problems temporarily, often at a huge cost which cannot continue over a long term.

While they do, to some extent, touch people's lives, they rarely empower and can almost never lead to economic independence. Quick fixes are not completely undesirable, though, and sometimes may be required in issues which deal with relief work but certainly not with a long-term objective. The receiver is a mere short-term beneficiary here. Generally, the control structure is bureaucratic with a rigid 'one-size-for-all' model.

Sustainable solutions: Sustainable solutions are the need of the hour across the world. They require a careful study of the underlying aspects of the problems or issues, and a customizing of solutions according to local competencies and conditions. They demand an innovative approach in order to deliver the best at the lowest cost, and so, a sustainable solution is often also the most cost-effective. Sustainable solutions empower and create local leadership in planning and execution, and hence have a long-term, objectively assessed goal. The receiver is a stakeholder in such initiatives, and the structure of such initiatives is entrepreneurial, flat and participative.

There is a need for initiatives to move to the third category—sustainable solutions. This would require six key elements: ingenuity in thinking, depth in understanding, integrated solutions, community participation, technology and creative leadership.

Of course, there is a role which governments and corporate bodies will have to play as a part of social responsibility. But even enthusiastic individuals with bright ideas can bring about a tremendous societal transformation, in a sustainable way, entirely by virtue of their own capabilities. This new and fast-growing set of entrepreneurs who—through their education and acumen—hold the promise for the nation's future transformation, are called social entrepreneurs. Their role in developing a sustainable growth model would be paramount as they would be the interface between people, technology, investments and solutions. Let us discuss some of the social entrepreneurs whom I have come across.

FROM LOS ALAMOS TO PEDA AMIRAM

The life of Dr M.R. Raju is a shining example of an internationally known nuclear scientist working in the Los Alamos National Laboratory, USA, who decided to transform his native village, Peda Amiram, in the state of Andhra Pradesh, and the surrounding area. With the support of his wife M. Subhadra Devi Raju, a well-known social service worker, and other family members, he set up the Mahatma Gandhi Memorial Medical Trust in that village. Within a decade, he and his team, supported by volunteers from various institutions from India and abroad, have brought about a great change in the lives of the people. They have particularly targeted character-building and uplifting the child population in the age group of three to five years. This has totally transformed the village atmosphere and the dropout rate of the children in schools has come down from 70 per cent to less than 30 per cent. Due to the creative learning that is being imparted to them in a harmonious atmosphere, a self-confident young population is emerging in the village.

In addition, two hospitals—one for cancer diagnosis and treatment, particularly of cervical cancer in the tribal people, and the other for treatment of eye diseases—have been commissioned in the village. I myself have visited Peda Amiram and seen the development and the progress of the project. Dr Raju and his team are silently carrying out an important and noble mission in Peda Amiram with the cooperation of state government officials.[13]

EQUITY IN EDUCATION

In June 2010, I visited Teach for India, Pune, a non-profit organization, where I met many bright

young teachers who are passionate about spreading the mission of education. This is a unique movement of college graduates and young professionals who commit two years to teach full-time in under-resourced schools (English-medium primary schools with a fee structure of less than Rs 300 per month) in Pune and Mumbai. These well-qualified youths are contributing to the process of bringing equity in education starting at the grass-roots level.

In 2010 alone, 150 young professionals from leading companies and fresh college graduates chose to give two years of service to the mission. These young and dynamic teachers are called 'Fellows', and they are engaged not only in classroom teaching but also in transforming schools, evolving innovative educational patterns that address the students' needs and building their creativity. The inspiration the talented youths can provide and the transformation that such a mission can achieve will help kindle the light of knowledge in the lives of many children.[14]

REACHING THE UNREACHED THROUGH SOCIAL ENTREPRENEURSHIP

In the present circumstances and environment, it is inspiring to see the manner in which Dr H. Sudarshan, for the last thirty years, has put all his efforts into the integrated development of the Soliga tribal people of Karnataka, through the Vivekananda Girijana Kalyana Kendra (VGKK), at BR Hills. When I visited the area in 2006, I saw the new tribal hospital, and the societal transformation of which he is the architect. Karuna Trust, affiliated to VGKK, has as its areas of focus education and livelihood improvement, along with health care. The trust runs twenty-five primary health-care centres (PHCs) in Karnataka and nine in Arunachal Pradesh. VGKK also has a vocational training institute where sixteen crafts are taught. Due to its efforts, 60 per cent of the tribal people now get a minimum 300 days of employment.

When Dr Sudarshan was just twelve, his father passed away in a village without any medical help. This event, followed by his reading the biography of Dr Albert Schweitzer who worked in Africa, motivated him to take up the medical profession and work in tribal areas in India. Dr Sudarshan derives his philosophy of work from Swami Vivekananda's teaching, which states 'they alone live who live for others, the rest are more dead than alive'.

Dr Sudarshan says the greatest joy he has experienced was when he resuscitated a patient whose lungs had given out and whose heart had stopped. Also, whenever he sees a smile on the face of poor patients who have come to the hospital with cataract in both eyes and who walk out with full vision after the cataract surgery.

Dr Sudarshan starts his day at 4.30 a.m. with yoga, meditation and prayer with the tribal schoolchildren. From 9 a.m. to 1 p.m., he goes around the wards and sees the patients individually. He has lunch with the tribal students between 1 and 2 p.m. Later, till 7 p.m., he is busy in the clinic where he conducts minor surgeries, and he visits the tribal complex. He spends a large part of his time in clinical and laboratory diagnosis and treatment, in addition to supervising, monitoring, teaching and carrying out research with his team members.

He pays particular attention to the typical problems of the Soliga tribal people such as cases of snake bite, mauling by bears, pneumonia, tuberculosis and acute respiratory infections. They also

suffer from sickle cell anaemia and Dr Sudarshan has developed a low-cost electrophoresis machine for diagnosing the disease. He has built up a health-care system based on the strengths of the traditional knowledge available in the tribal areas. The secret of his mission is that he is empowering the people to manage their own health problems through the provision of knowledge. He has trained tribal girls as auxiliary nurses and midwives (ANMs) and posted them in the tribal sub-centres. Thus the rural areas have become self-sufficient in nursing resources. He has also developed a low-cost management system for epilepsy and set up dental care and cancer control measures in the PHCs.

He is providing quality health care to the people by the introduction of low-premium health insurance for all the people living below the poverty line. He suggests that medical colleges should inculcate in their students sensitivity to the suffering of patients. The medical education system should aim at facilitating the application of medical technology to provide the poor with the best care at the most affordable price.[15]

All these social entrepreneurs are well-qualified individuals with a mission to change society in a sustainable way. The nation, to attain its full development and prosperity, needs many such inspired youth powered with education and talent who would take up the challenge of being the transformers of today and the architects of tomorrow.

FOCUS ON UNDERLYING CAUSES: RESEARCH BEFORE EXECUTION

Societal development is similar to scientific missions. They both need a 'research first' approach. Unfortunately, many well-funded initiatives around the world are also the most poorly researched, often based merely on perceptions. Just as many scientific expeditions owe their success to understanding the hidden and the significant, social development has to be based on knowing and mapping the concealed factors. Much like technological missions and operation management, social development has to follow a solution broken down into a time-bound order of precedence for initiatives—to clearly outline which step precedes and follows which initiative in order to achieve the objective.

Let us take the very simple case of addressing the problem of dracunculiasis, also known as Guinea worm disease, that used to affect millions in Africa and Asia. Today, without any vaccine or cure, the disease has been greatly controlled and is now endemic in four African countries. There is a high likelihood that the disease will be the first parasitic disease to be eradicated and the first disease to be eradicated through behavioural changes alone. The disease is caused by the consumption of water contaminated with water fleas (copepods) containing the *Dracunculus larvae*. The larvae develop for about a couple of weeks inside the water flea and during this stage it can infect a person if ingested. Once inside the body, the water flea is digested but not the Guinea worm larvae which burrow deep into connective tissues or joints. The worm grows to a length of two to three feet and then, after about a year, emerges out of the skin of the afflicted person, causing a lot of pain and a burning sensation. This leads the person to immerse the affected part in water, into which the new larvae pass. Often, in poorer regions without access to filtered water, these contaminated sources are used for drinking purposes, leading to fresh infections. It is surprising that there is no way the parasite can survive without passing through humans, and yet, the disease has continued for over 3,500 years, even found in calcified Egyptian mummies. It has begun to reduce greatly only in the past two to three decades.

The fundamental solution for dracunculiasis was to base it on the lines of sustainability and search for the underlying causes than just symptomatic relief. For ages, people had tried everything—from burning the affected parts to finding vaccines and medicines —with no success. But, solutions need not always be from the laboratory, sometimes they require ingenuity in thinking.

The point of interception in the modern initiative was to ensure that the worm did not get to breed in one cycle and, given its inability to survive outside the human body, its eradication was assured. Thus the solution lay in preventing the water flea from entering the human body, and if this were done for just one year, the cycle would be broken forever. All it took to eliminate an age-old killer disease was a very low-cost instrument coupled with health practices. Villagers were given special nylon cloth to filter the water. They were advised to obtain drinking water from wells wherever possible. Besides, 'pipe filters' were widely brought into use. They are basically drinking straws fitted with a water purification system and are especially useful for those travelling away from home. They work on the energy due to suction by the mouth and cost a little over $1 each.

The Carter Center reports that, in 1986, there were about 3.5 million cases of Guinea worm disease in twenty nations. By 2009,

the number had reduced by more than 99 per cent to about 3,190 cases across four countries. Totally eliminating Guinea worm disease—which should be completed within a few years—would perhaps be one of the most cost-effective and innovative solutions ever achieved. We need such innovative thinking and understanding to tackle the many issues and problems in not just health care but also education, societal biases and economic stagnation.

Source: The Carter Center and World Health Organization web resources

CREATING A VALUE-BASED SOCIETY

We are witnessing a new situation throughout the world. Economically prosperous nations with their mighty security forces are under various forms of threat. Developing countries with certain value systems are in fear for their future.

I have met over 1 million children below seventeen years of age and I have also met thousands of young students in thirteen countries. All the youths, during my interactions with them, unanimously shared with me their dream of living in a happy, prosperous and safe nation. Giving our nation and the world a sustainable development system with a focus on creating value-based citizenship must be considered an important mission. To achieve this, I have evolved a three-dimensional doctrine: (i) Education with a value system; (ii) Religion transforming into spirituality; and (iii) Economic development for societal transformation. All these three components have to be tackled in an integrated way throughout the world.[16]

Let us discuss the relevance of education with a value system. The best part of a person's life is childhood, and the learning period in school, which is between five and seventeen years of age. Of course, at home a child receives love and affection, and values are imparted. A student spends approximately 25,000 hours on the school campus and roughly three times that with parents. Hence school and home both have to be focused towards learning and need the best environment and mission-oriented learning with a value system. During this stage, they need value-based education in school and at home for them to become good citizens. This echoes a great teacher's saying, 'Give me a child for seven years. Afterwards, let God or the devil take the child. They cannot change my child.' For parents and teachers, the school campus and the home must have an integrated mission, that is, education with a value system. They must inculcate moral leadership in their children, which involves two aspects. First, it requires the ability to have compelling and powerful dreams or visions of human betterment; a state in which human beings would be better off in the future than they are now. Second, moral leadership requires a disposition to do the right thing and influence others, too, to do the right thing.

The Chitrakoot PURA, in central India, focuses specifically on promoting value-based learning and value-driven societies as its fundamental goals, which is being implemented through its gurukuls.* The Deendayal Research Institute (the implementing body of the Chitrakoot PURA) has established gurukuls on the ancient educational pattern. Children of all social strata, without any discrimination, live and learn in the gurukuls. There are ten such gurukuls (six for boys and four for girls) with the capacity to accommodate twenty students each.

The novelty of this system is that one retired elderly couple, along with two attendants, has been assigned to every gurukul, so that each has a family of twenty-four. The vision of the gurukul system is

that since students spend three-fourths of their time in a hostel, it is the best opportunity for imparting values to them. This inculcation of the value system is the responsibility of the elderly couple. The school also acts as a point where the experience of the elderly is utilized to nurture the young.

Gurukuls also focus on teaching the children lessons in self-reliance. Each gurukul has its own land where the students grow vegetables for their own consumption. Each gurukul also has a cow. Besides academic studies, the students are given training in different trades in the Udyamita Vidyapeeth,* the entrepreneurship development centre of the Chitrakoot PURA.

The gurukul system is an excellent example of how value-based learning can be facilitated and how the retired and elderly population of the nation can be meaningfully, and with respect, utilized in the task of building the nation and generating enlightened citizens. A sustainable development system, to be truly inclusive, has to find such opportunities for elders.

ACHIEVING AN INTEGRATED HEALTH MISSION FOR THE LONI PURA COMPLEX

Let us now move to the western part of the nation. The Loni PURA is located in the Ahmednagar district of Maharashtra. It has a participative model of integrated rural development which has come up among 235 villages with a population of 500,000 people. The seeds of the Loni PURA were sown back in 1948 with the setting up of Asia's first cooperative sugar factory at Pravaranagar by the late Padma Shri Dr Vithalrao Vikhe Patil, who mobilized the local community into creating this income asset. This economic reform at the regional level was transformed into a social movement and, over a period of time, Loni saw the creation of many other social assets such as schools, colleges and hospitals, which led to a better development of the local population.

- Rural education complex
- Rural medical complex
- Industrial complex
- Sahakari Bank
- Rural and agricultural development complex

The health services at the Loni PURA are being managed by the Pravara Medical Trust with the help of its constituent health-care colleges and various other international development agencies like the Swedish International Development Cooperation Agency (Sida) and Pathfinder International (a USAID Mission). The Loni PURA has a large tribal and remote area under its management, and has had to face the challenges of poor connectivity, a high incidence of malnutrition, poverty, poor child and mother health and the problem of the spreading HIV infection.

The health-care mission for the Loni PURA evolved as an integrated and outcome-oriented mission with a special focus on improving the much neglected mother-and childcare. The multi-pronged mission for health care had the following components:

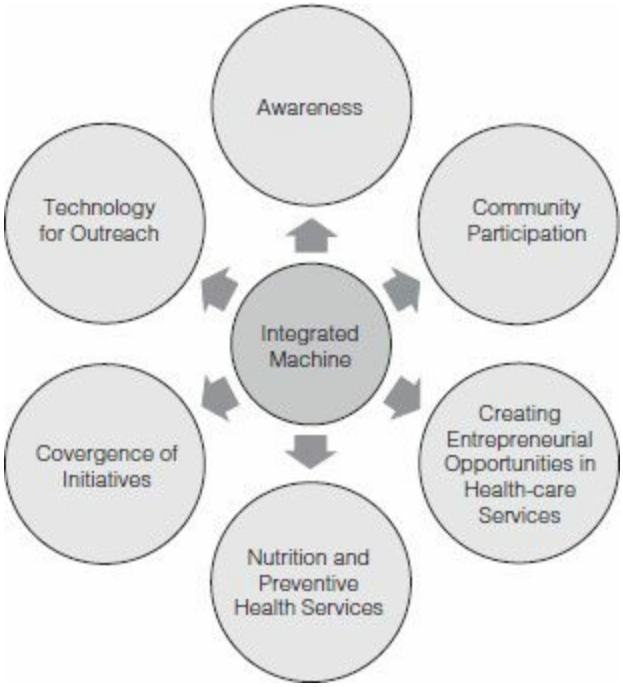

FIGURE 5.10: Components of the multi-pronged health-care mission at the PURA Complex

AWARENESS

One of the first steps towards implementing preventive health care was to generate an awareness of hygiene, prevention and diagnosis. The primary problems of the area were identified as HIV, childcare and female foeticide, as well as the necessity to promote general health and hygiene. Institutional workshops were organized for conveying the concept of a clean village. Training was organized specifically for schoolteachers, with more than fifty workshops for more than 3,000 nodal teachers and educators, covering eighty-five secondary schools in the area. Involving teachers was an important measure and it had a cascading effect, as it was observed later that more than 70 per cent of the trained teachers included the issues that had been discussed in the workshop in their teaching schedule. They also empowered the students to act as watchdogs against the observance of blind faith and unhygienic practices.

One of the serious problems that had to be tackled was the falling female-to-male ratio. Out of the 235 villages, thirty-eight had a gender ratio of fewer than 900 females to 1,000 males, and villages like Rahata had 638 females to 1,000 males in the age group of zero to six years. To improve this situation, the health-care mission undertook a multi-pronged approach of awareness and empowerment of the women. Using multimedia tools on mobile platforms, short movies and posters were prepared and exhibited in the villages. The community was also made aware of the alarming situation and urged to take action.

A total of 14,000 books, along with posters and handbills, on seven different local problems and local entrepreneurship opportunities, are there in all the villages of the Loni PURA to promote healthy living and empowerment of the people.

COMMUNITY PARTICIPATION

One of the major tools for promoting health care is making a sustained effort to create an awareness of it as a common goal owned and shared by the community. The Loni PURA's health-care mission promoted the concept of a 'healthy village'. It was accepted by the state government and included in the activities of the National Rural Health Mission (NRHM). The national-level 'Nirmal Gaon' (Clean Village) programme and the state-level 'Sant Gadge Maharaj Puraskar' for villages, where 100 per cent households have access to quality sanitation, are being actively implemented in the PURA complex areas. As many as 196 villages were recommended for the Nirmal Gaon Award for 2007 from Ahmednagar district—the highest number of villages from a single district in the country, since the scheme was launched by the Government of India. Out of these 196 villages, fifty villages were from the Loni PURA area. The total number of villages from the Loni PURA that have received the award now stands at sixty-eight.

'NIRMAL GAON' AWARD

The Nirmal Gaon Award was launched by the Government of India under its Total Sanitation Campaign. The award is given to district blocks and villages on total elimination of the practice of open defecation. To qualify for the award many parameters have to be ensured, like the entire village (or block) has the provision for modern lavatories with the facility of water. Besides, the village should also have provisions for providing safe drinking water to its residents.

Another major problem which formed a thrust area for the Loni PURA health mission was the rehabilitation of and improvement in the lives of widows, especially those who were without family support on account of their husbands—usually the primary and sole earning members of the family—having died of AIDS. Many of these women were minors with children, who had been married off early, and were most probably infected by HIV. They were often economically deprived and socially marginalized. Moreover, most of them were not even aware of the HIV they had acquired and its implications. The issue was not only of health but also of social equity, justice and human rights within the community. The challenge was to screen the cases and at the same time empower them enough to guarantee them a livelihood. The operations began in 2006 with focused group discussions (FGDs) and informal surveys in thirty-five villages; these were extended to 100 villages in 2007 to identify the HIV Seropositive cases. After special screenings and tests, many cases of positive HIV infection, especially in widows, were identified and referred to the district hospital for free antiretroviral (ART) treatment.

But that was only a part of the effort; the ultimate aim was the empowerment of the widows. Hence, a socio-economic rehabilitation programme for 102 HIV/AIDS-identified widows, imparting training in self-employment to make them economically independent, was drawn up through individual, family and community counselling sessions. Self-help groups were formed for the HIV/AIDS widows identified in the Loni PURA, and they were trained in self-employment schemes such as, growing Spirulina, making fortified foods, screen-printing and manufacturing detergent powder.

CREATING ENTREPRENEURIAL OPPORTUNITIES IN HEALTH-CARE SERVICES

One of the unique aspects of Loni PURA's health-care mission is the evolution and empowerment of

women entrepreneurs in the field of delivering health-care services. They are called female health volunteers (FHVs), and are usually in the age group of twenty-five to fifty years with a basic education. They generally operate as part-time health extension and monitoring agents in their own or nearby villages. Each FHV is responsible for a variety of tasks, including disseminating knowledge, assisting at the health camps in the villages, and maintaining and monitoring general health and hygiene at the village level.

Besides the FHVs, there were a number of traditional birth attendants (TBAs) and traditional healers (THs) in all the villages. While their skills might be worth scrutiny, there was no doubt that they had a micro-level reach deep into the villages. Instead of rejecting and replacing them, the Loni mission embarked on a programme of value addition and quality enhancement for them, banking on their competence and knowledge of the villages and their inhabitants. In 2007, 117 TBAs and sixty-seven THs were trained in modern methods of health care. Thereby, their ability as modern providers of health care was developed and their enterprise potential enhanced. To encourage the adoption of new health-care practices, there is a policy of paying the TBAs Rs 50 as an incentive for conducting a successful and safe home delivery using a freely supplied DDK (disposable delivery kit) worth Rs 40. On an average, each of the 200 trained TBAs is earning Rs 400 per month on this account.

NUTRITION AND PREVENTIVE HEALTH SERVICES

For a result-oriented societal mission, it is important to widen the field of action with a careful analysis of all the problems that need to be addressed to achieve the objective. One of the primary obstacles which the Loni PURA mission faced in its goal of bringing down the IMR and the MMR and guaranteeing a healthy life for all was anaemia and lack of nutrition. To address the urgent problem of quality food, an innovative supplementary nutrition diet called Shakthi+ was started. This supplement is locally manufactured by women SHGs, and has converted nutritional rehabilitation into a social entrepreneurial opportunity for them.

SHAKTHI+ FACTS

The special supplementary diet is made using locally available cereals and pulses—wheat, rice, ragi, soyabean, black gram, Bengal gram, green gram, yellow gram, almond and sugar.

100 gm of Shakthi+ provides 463 calories, 39.4 protein gm, 17.5 fat gm and 16.6 mg iron.

At the same time, about 200 exhibitions involving local volunteers, on food and nutrition, were held in schools, rural health centres and project offices. Women were encouraged and trained to develop community-level nutritional gardens so that access to nutrition was available at the doorstep.

CONVERGENCE OF INITIATIVES

To realize the mission of providing quality health care and ensuring a healthy life for all, the Loni PURA mission also strives towards a convergence of different initiatives, from international agencies, the community and the government. Loni PURA has built up a consortium of local NGOs,

medical institutions and an international development fund under the Sida.

On the field level, the services provided by the mobile clinics of the project were synchronized with the government clinics of the same village in order to strengthen the overall service delivery to the community. The Loni PURA's project staff have been contributing to the district-level medical and public health and other services by training nurses under the NRHM, the ASHA (Accredited Social Health Activists) scheme for tribal areas, and the International Regulatory Development Partnership (IRDP) training programme and implementation.

The Loni PURA health-care mission is an integrated effort for identifying health problems and their underlying causes, and then embarking on a task of preventive health care; social empowerment; electronic extension of services; mobility in health care; and the development of social entrepreneurship and societal employment. The integrated health-care initiative has had a colossal impact on the target health indices in a very short span of about two years. The most immediate impact was shown in the MMR and the IMR of the area. Annual reports of the Loni PURA show remarkable results of these efforts in the reduction of maternal deaths and infant mortality. This has made Loni, which is largely a tribal area, emerge as a trendsetter in the health-care domain for the nation and a guiding principle for the development of sustainable development systems in all indices including Crude Birth Rate, IMR, MMR and vaccinations as shown in Table 5.3.

TABLE 5.3: Comparative performance of the Loni PURA

Description	Unit	India	Maharashtra State	Ahmednagar District	Loni PURA Region
Crude Birth Rate[17] (rural)	Per 1,000 population	24.7	18.7	17.3	14
Infant Mortality Rate (IMR)[18]	Per 1,000 births	61.0	41.0	35.6	25
Maternal Mortality Rate (MMR)[19]	Per 100,000 births	450	380	290	180
Fully Immunized Children[20]	Percentage	37 (rural)	77 (rural)	52.3	85

TECHNOLOGY FOR OUTREACH

Since the Loni PURA is operating in a tribal and difficult terrain, it is necessary to 'reach the unreached' through the application of technology and mobility.

To achieve better coverage in the PURA complex, and to empower the people with better information on health and hygiene, seven e-health centres were set up in partnership with the local community. The latter contributed by providing some of the physical infrastructure and by paying part of the IT operator's salary, thereby making the staff and the centre socially accountable to the community. The other fixed expenditure such as equipment and running expenses is managed by the Pravara Medical Trust. Each e-health centre, using its seamless and fast access to the Pravara Institute of Medical Sciences University (PIMS), is able to reap the benefits of Electronic Connectivity for creating health-care facilities in the remotest regions.

First, each e-health centre acts as a consulting point for the capacity-building of the regular medical staff employed by Loni PURA and the private practitioners operating in the rural region. Electronic Connectivity with experienced doctors and experts at PIMS provides the facility for consultation in complicated cases and obtaining a second opinion, thereby upgrading the health-care services from the existing medical set-up. Besides this, patients can connect directly with the doctors at the Pravara Institute for their specific queries without having to travel all the way to the hospital. This facility is, at present, benefiting over 100 villages. Even in cases where a physical examination is required, patients can consult with doctors at the PIMS through e-connectivity. All the medical records and information of patients under treatment are electronically available through the e-health connectivity.

Besides, medical treatment and consultation, the centres also constitute a place for offline and online health education and awareness programmes on pertinent topics like HIV, environmental health and hygiene through a direct connectivity available at the doorstep.

The e-health centres are, in fact, well-managed points of fast Internet connection and multimedia situated in the heart of the village, and hence, with innovative thinking, some amount of additional resource utilization was a definite possibility. Keeping this in mind, the e-health centre tapped further into the Electronic Connectivity and started interacting directly with the Krishi Vigyan Kendra, Loni (discussed in detail in Chapter 3). The centres are also used for obtaining information on the quality of seeds, pesticides, scientific farming, weather and current government schemes. Market connectivity was also set up using the centres, whereby farmers can get online information about the prevailing market prices of different products in at least ten different city markets.

Students, unemployed youths and women's SHGs can avail of the offline and online guidance and counselling on career and self-employment opportunities through the same e-health centres. Finally, they also offer free web-surfing facility to the Internet users of the villages.

The success of the e-health centres at Loni has three important lessons. First, it shows how, using Electronic Connectivity, an economically feasible model can be established, where the knowledge capital available at a central point—in this case, at the PIMS—can be shared for the benefit of a larger audience and also empower other private health-care givers in the area. The second lesson is the design of the e-health centre itself. Since the gram panchayat provides the space for the centres and pays part of the salary of the IT operator who is a trained, computer-literate local person, the community enjoys ownership of the product. This type of community ownership contributes to the sustainability of the project. It is also significant to note that, by the innovative sharing of the pre-existing Electronic Connectivity, the e-health centres are slowly graduating to e-community centres by providing value-added services well beyond the field of health and towards integrated empowerment of the local population.

In order to extend the outreach even further, the Loni PURA's health-care mission has introduced five mobile clinics and eight rural health centres (RHCs), located strategically across the villages. The mobile clinics are equipped with two trained nurses and a paramedic, equipment for diagnosis and the monitoring of health, and facilities for basic treatment and medicines. Each mobile clinic follows a schedule where it covers two villages every day in morning and evening shifts. Many of the villages covered by the mobile vans are far-flung tribal villages and settlements with no connecting

traversable road and no access whatsoever to medicinal facilities till the mobile clinics started providing the first-of-its-kind health services through special smaller vehicles. The mobile clinics are assisted by local women health volunteers who help inform the local population about the services offered and bring the sick to the mobile clinic camps. Every year, about 3,000 health camps are conducted across the Loni PURA complex, with a special focus on mother and child health care. The RHCs run special health clinics for children twice a week and a general clinic every day for the villagers. They also use the e-health centres for long-distance consultation with the specialists in the PIMS, and transport the more serious and critical cases to the hospital at Loni.

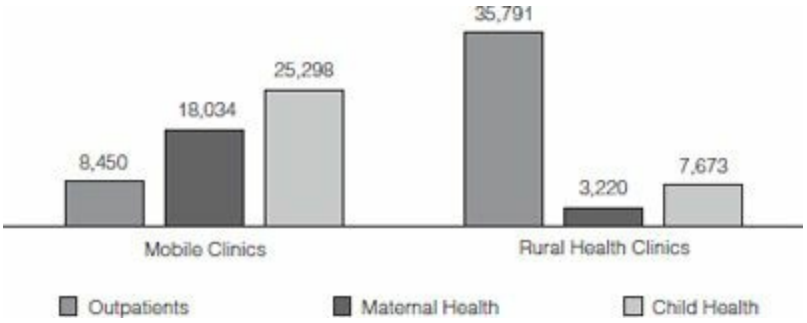

FIGURE 5.11: Number of patients served by the mobile and the rural health clinics in 2007

SETTING BROADER GOALS WITH OBJECTIVITY: CHITRAKOOT PURA

The Chitrakoot PURA, in Madhya Pradesh, lends a unique meaning to development and sets an integrated target for the measurement of development, which has a combination of parameters including economic status, poverty, education, health, women's empowerment, harmony, physical connectivity and environmental aspects. The Chitrakoot PURA strives to go beyond development and reach a state of self-reliance on economic, social, cultural and environmental levels.

It has devised an objective way to measure, monitor and assess the progress of each village based on multidimensional criteria that include the parameters listed and defined in Table 5.4.

TABLE 5.4: Parameters to measure progress in the Chitrakoot PURA

Parameter	Definition	Measurement
Unemployed	A person in the age group of 18–35 (not pursuing education) without the means to generate income to fulfil his needs	The number of unemployed persons (should be employed 180 days out of 365 days).
Poor	A family that cannot fulfil its basic needs	An income below Rs 18,000 per annum for the whole family
Illiterate	A person who is unable to read or write, or understand his or her responsibilities, and does not have decision-making powers	• Children in the age group of 6–14 years should have a school education • The family should be aware of matters that concern the village • Every village should have a primary school • The head of the family should participate in gram sabha meetings • Those in the age group of 15–35 years should be able to read and write through adult education
Healthy	A person who is mentally and physically fit, and willingly performs the responsibilities of the family, society and the nation on the basis of physical and mental abilities	• The number of people suffering from chronic disease • The number of infants suffering from malnutrition • Vaccination • Birth and death rate • The number of families with access to clean drinking water • The number of families aware of family planning
A Clean and Green Environment	Management of home and its surroundings; plantation of multi-purpose trees. Consciousness and conservation of the environment	• After finding the number of members in a family, to determine the number of compost pits required • Whether a drainage/soak pit system is available or not • Access to clean drinking water • Cleanliness of the houses and nearby areas

Parameter	Definition	Measurement
		• A signboard in every village displaying matters related to cleanliness • A system of sanitation to be evolved by the villagers themselves according to their local situation • A nutritional or kitchen garden with tulsi plants at every home, and panchvati (pipal, banyan, neem, anola, ber trees) in every village
Societal Harmony and Conflicts	Cases that are registered with the panchayat, in police stations and courts. Villages should become completely dispute-free.	• The number of cases registered in the panchayats • The number of registered cases (in police stations and courts) • Registration of new cases
A Self-reliant Family	The family should have its basic needs met with, and should save a part of its income	• The family should save a minimum of at least Rs 2,000–3,000 per annum • Children in the age group of 6–14 should have a school education
A Prosperous Family	Education, social recognition and moral values in the family and in society	• The family should be aware of and be knowledgeable about village matters • At least one person in every family should be a graduate • Children in the age group 6–14 should have a high school education • The family should be in a position to give employment opportunities to others • The family should save at least Rs 7,000–10,000 per annum
Public Amenities	Guidance and assistance in constructing public amenities, and creating awareness of the need to maintain the common facilities available	The facilities should include, depending on an assessment of the needs, a playground, a school, a panchayat bhavan, wells, ponds, hand pumps, a post office, a public telephone and roads. Maintenance of existing facilities would also be considered within this parameter.

Parameter	Definition	Measurement
Social Conscious-ness	A society in which the people are aware of and conscious about their social duties, and do not rely blindly on others	• The number of encroachments • The practice of child marriage • The number of dowry cases • The number of child labourers • The number of divorce cases • The number of religion-based disputes • The number of widow remarriages (this is considered a positive sign) • The number of community functions • The number of families still believing in superstition

The Chitrakoot PURA assesses the state of self-reliance based on these parameters and has realized this model in eighty villages of Chitrakoot in 2005 with the vision to expand it to the nearby 500 villages. This was realized and in February 2011, I inaugurated the self-reliance model for the 500 villages of Chitrakoot.

BRINGING QUALITY GOODS TO PURA THROUGH COOPERATIVE SUPERMARKETS

We have already seen in Chapter 3 that the Warana cooperative movement is a model of integrated development. One of its prominent features is the Warana Bazaar (supermarket). By the 1970s, the Warana region had made good economic progress due to the cooperative sugar and milk processing enterprises which gave the local farmer families a reasonable disposable income. The leaders of the Warana movement then realized that the incremental income was translating into a demand for better products, but there was a lack of market connectivity for consumer goods. This led to the birth of the Warana Consumer Cooperative Movement in 1976. Since then it has become a highly successful enterprise managed by the womenfolk of the villages. It has been audit Class A since its inception, and its sales and profits have been rising steadily. It pays dividends at the rate of 26 per cent per annum against investment in both cash and kind. Besides the high returns, in 2003, the Warana Bazaar issued bonus shares at a 1:4 ratio—a sure sign of its success as a business enterprise.

Today, it has more than 16,000 members, 80 per cent of whom are women with fifty-eight rural stores. The sales of the Warana Bazaars have crossed Rs 86 crore (Figure 5.12) starting at less than Rs 1.50 crore in 1980. It directly employs more than 500 individuals, besides sourcing most of its products from local micro entrepreneurs. Since most of the members are also consumers, the quality of the products sold and the customer-friendly attitude are strictly maintained. For example, Warana Bazaar offers its consumers regular discounts and other value-added services like free insurance policies and mobile consumer-awareness vans. To remain competitive, it emphasizes the training of its employees, and many of the current managers were sent abroad to study the working of consumer cooperatives and to adapt the best practices in rural Warana. A wonderful inspiration and idea, indeed, learning from the best in the world and adopting it in an Indian village setting.

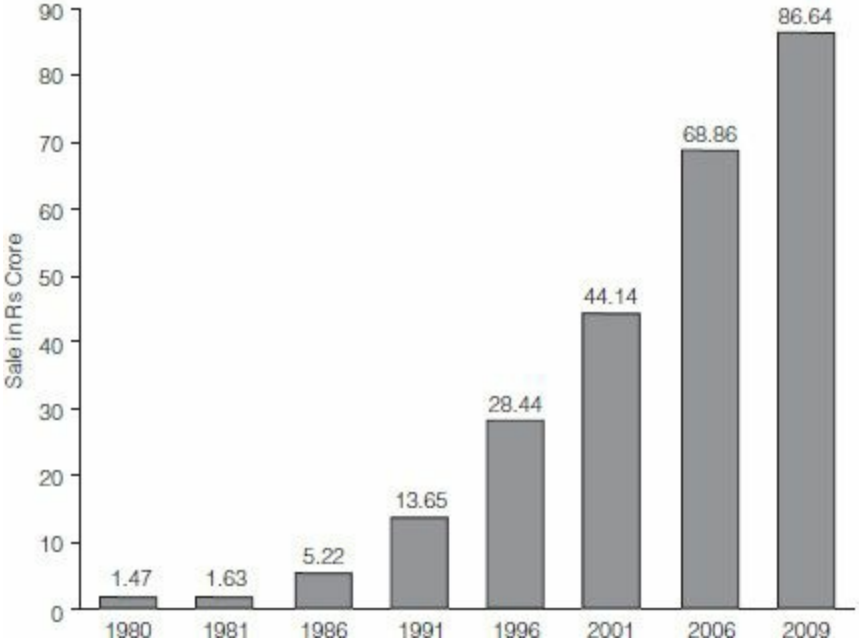

FIGURE 5.12: Sales of Warana Bazaars

The long-term growth and sustainability of the Warana Bazaar model highlights the possibility of harnessing the latent demand in rural regions with rising incomes and better access to quality products to build a socio-business model, in which the consumers are also the owners in a small cooperative contributory way, and the benefits and profits are all shared equally by the entire community. This generates a sense of ownership of the social assets created.

ADVENT OF NEW SOCIO-ECONOMIC TOOLS

Since PURA's mission is one of socio-economic transformation, it is important to set up the right benchmarks and standards for societal obligations. In this chapter, we have already seen how closely the social and economic goals are linked and how both are necessary for the evolution of any sustainable development model. We have also seen how the private sector, individual entrepreneurs and multinational corporations, too, can play a significant role in taking the PURA mission across the nation and even to other parts of the world. This is significant as the reach of consumer goods, fast-moving consumer goods (FMCG) and food companies is immense and today, most of the remote villages have access to soft drinks and packaged foods, branded toiletries and toothpastes and basic medicines—all coming through the distribution channels owned and operated privately, often by the large companies themselves. The point here is, if distribution channels can be set up to carry these goods efficiently and regularly to the common man, how this procedure can be synergized as a shared vehicle to achieve education, health care and better employment for the rural masses. There are five challenges here:

1. How can social and economic goals be integrated so that both become sustainable? It is evident that certain societal projects are not economically beneficial, so how can this problem be overcome?
2. How can large companies and the private sector be incentivized to undertake societal missions?
3. How can a convergence of private and public initiatives be achieved for common societal missions?

4. How can people at the local level be empowered to articulate their needs? This will help ensure that the societal assets being delivered are pulled by demand and not pushed by supply, and help match investments with the required interventions.
5. How can transparency be maintained during the process over a sustained period of time?

The answers to these questions are complicated because a fine balance is needed between a centralized and a decentralized approach. One key aspect would be to objectively link social and economic goals through a 'virtual credit system'.* We will term this new 'virtual credit' as 'P_S' or social credit.

Consider P_S as a form of appreciation given to any initiative, whether private or public, which has a societal consequence. This social credit, P_S, will be linked to objective capacity-building or any measure providing an amenity in the rural complex. For example, the value of social credits can be assigned for:

1. Every child for whom the societal mission, say a school, would be able to provide quality education with full amenities at the premises.
2. Every additional hospital bed which could be availed of by the local people at an affordable price.
3. Every family which is able to access clean drinking water without any discrimination.
4. Every BPL family which would get sustained and respectable employment and would thus be able to come out of poverty.
5. Every extension in health-care delivery due to the extended services would be provided through a tele-centre.
6. Improvement in yield (in percentage) or in area under cultivation (in acres) which happened as the result of a new water conservation initiative.
7. Every family which is insured against illness or loss of farm or livestock, and the expected number of families which will be saved from falling back below the poverty line as a result of added capacity to absorb shocks.†

In fact, a societal development radar can be evolved with different contributions and objectively measurable parameters for each of the segments, as shown in Figure 5.13.

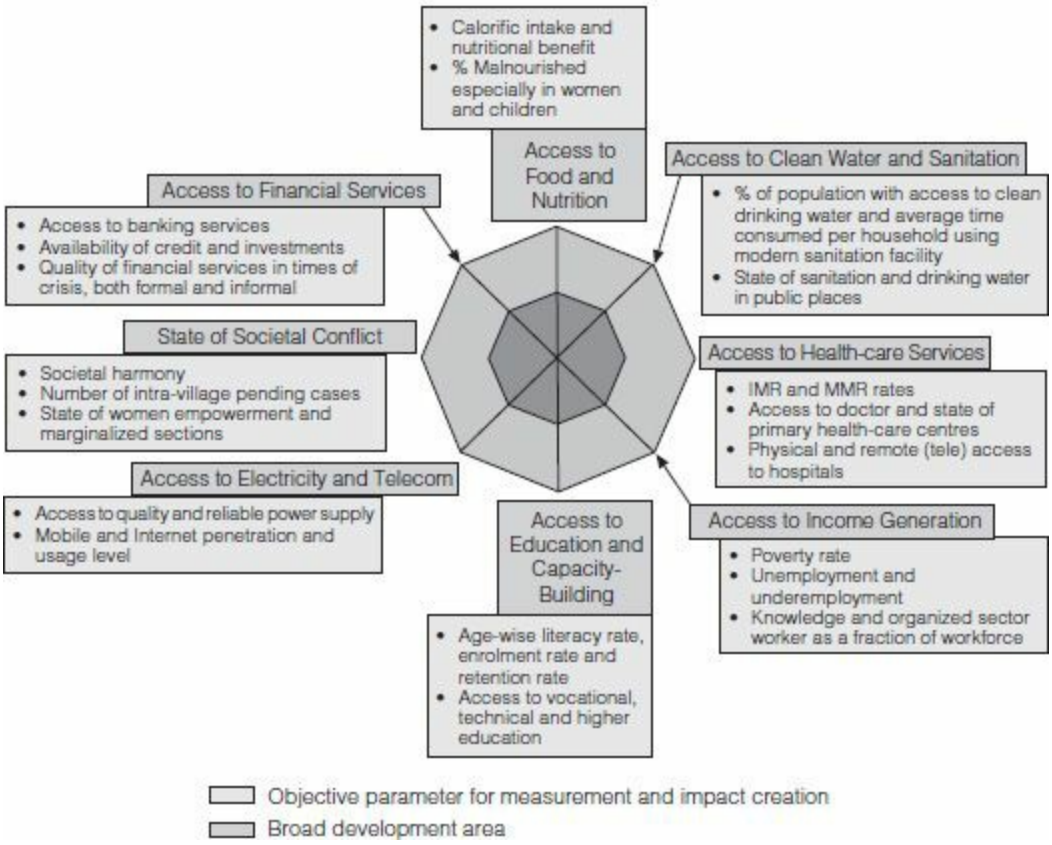

FIGURE 5.13: Societal development radar

The value of credit for each initiative would need to be evaluated separately, but in a joint manner where some part of the value would be judged by experts based on its perceived impact on a general scale. The remainder would be decided by local-level bodies by profiling the community demand. This would give the requisite weightage to those societal initiatives which are on a local priority basis.

All socio-economic missions by the private sector, academic institutions, NGOs or other organizations, which satisfy the criteria of the social credit system, would lead to an accumulation of social credit, P_S, with the implementer. This credit system of P_S can be reapplied in a variety of forms:

- It can be linked with priority lending and development-focused soft loans and aids.
- It can be a measure for a new class of products and services which are also in some way linked to the betterment of society. Corporate bodies can position themselves on this brand proposition.
- Institutions which generate social credit may be given priority for undertaking economic missions in the region. This can be done by assistance offered through the existing panchayati raj scheme or by dovetailing government-sponsored development schemes to create a package of capital and labour for the creation of social assets (for example, NREGA,* the Total Sanitation Campaign, Sarva Shiksha Abhiyan†).This will help incentivize projects with the highest priority and the most impact.
- The same social credit can be used to promote social entrepreneurship in areas where it may be needed but where it is not economically feasible in the immediate future.
- Specific social credits—for example, water or health-care credits—can be used to generate a demand. This can be done by giving credits for different human development exercises to the needy, and social entrepreneurs and cooperatives can be promoted to work towards such goals.
- Over a period of time, a market for social credits may also emerge on a wide scale. This will enable large enterprises to outsource the work of societal development to those who have developed expertise in the field of creating social assets.

Thereby, it will lead to a new cadre of large-scale social enterprises.

Over time, each PURA complex may evolve a social credit exchange which can be managed cooperatively by the locals or through the panchayati raj institutions. With the help of experts, it can determine what is needed most for the development of the village through public appraisal.

Depending on the identified needs, a portfolio of social credits can be extended. For example, if a village needs access to clean water on priority for the development, then they can be given water credits. A group of such credits can be mapped on to some concessions which can help facilitate the setting up of societal credit. It may be in the form of land, labour or investments. This social credit can be fulfilled by enterprises, NGOs or through corporate social responsibility.

Similarly, there may be enterprises or initiatives that seek concessions or permission to use the resources of the village. Ordinarily, this can potentially lead to a hostile situation which would be detrimental to the economic growth and social goals of all the stakeholders.

If the system of the PURA complex social exchange is followed, then such an industry would be mapped against a negative social credit which it would either have to offset itself—in a form dependent on what the village needs—or, alternatively, sponsor positive social credits, which would then be realized by another social entrepreneur or organization, or through a village cooperative.

Over a period of time, these social credits could be exchanged between villages, so that negative social credit could be used to ensure automatic selection of the best possible alternative for a particular initiative. A typical working plan is shown in Figure 5.14.

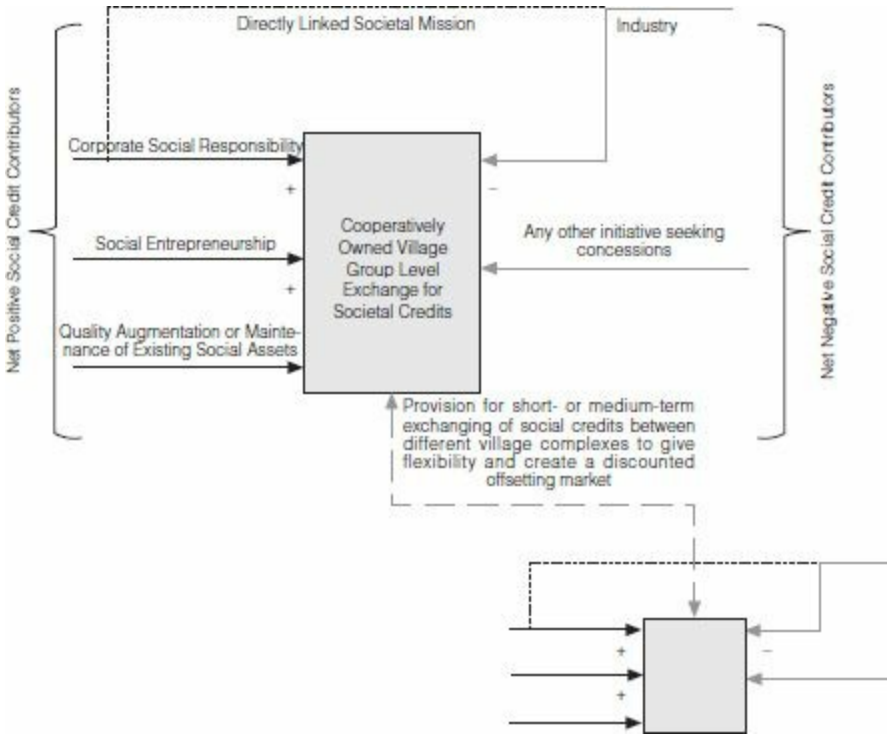

FIGURE 5.14: A Typical working plan for the social credit system

MEENAKSHI MISSION PURA

In May 2010, we visited a remote village called Thonugal in the Virudhunagar district of Tamil Nadu and inaugurated the Meenakshi Mission PURA pioneered by the Super Specialty Hospital and an IT

institute of Madurai. The unique feature of this PURA is that several institutions have come together with the people's participation to focus on health, education, employment generation and water.

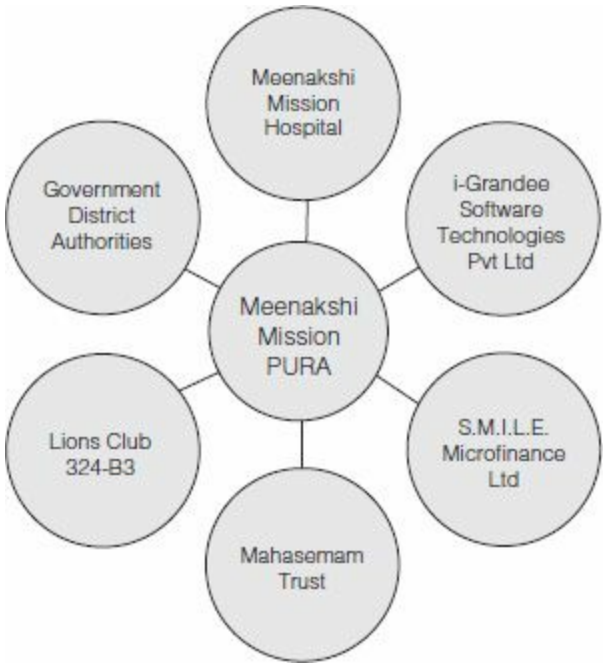

FIGURE 5.15: Meenakshi Mission PURA: Partners, coverage and aim

A tele-medicine centre has been set up with adequate medical modalities. By February 2011, more than 2,000 patients had been treated, ten free medical camps conducted and more than 3,000 people have benefited. Microfinance has been provided for creating entrepreneurs in over 500 small and micro enterprises: 600 women's SHG members have been identified and given small and micro loans for enhancing their livelihood possibilities and creating employment potential. Rural e-BPOs have been created for providing services to the BPO industry: unemployed youths in the region were selected and are undergoing training to do telemarketing for organic food items in the USA, and for digitizing the medical records. An e-learning centre for primary and secondary school students and a reverse osmosis (RO) water purification plant for providing clean drinking water to school students and villagers, to the tune of 250 litres per hour on a daily basis, have been installed.

Apart from this, a unique service I saw for the first time is the Mobile Dialysis Van on call basis which goes to the doorstep of the villagers suffering from kidney disease and who are immobile. The Lions Club International District 324-B3 too has provided a facility where any kidney patient who needs dialysis can get it at the Sastha Dialysis Unit managed by Dr Palanirajan in Madurai at a concessional rate. Every day, on an average, twenty-five patients are treated at this centre in Madurai.

All these schemes are managed by the unified Meenakshi Mission PURA system and will be expanded, in phases, to cover a minimum of thirty villages in each of the three southern districts of Tamil Nadu. Many institutions have been brought together to realize this Meenakshi Mission PURA initiative owing to the initiative taken by V. Ponraj, in his own native village of Thonugal in the Virudhunagar district of Tamil Nadu. He provided the necessary facilities, a part of his home, extended the necessary help and provided leadership to make this happen. He is now working towards expanding it to three more districts.

The Meenakshi Tele-Care/Tele-medicine Centre was opened on 19 May 2010 to provide the local

people with access to health care in Thonugal and the nearby villages in Virudhunagar district. The centre was inaugurated by me. Since the opening day, patients from six villages have been using the facility, and their number is increasing day by day. The statistics for the Thonugal centre as in August 2010 are depicted in Figures 5.16 and 5.17.

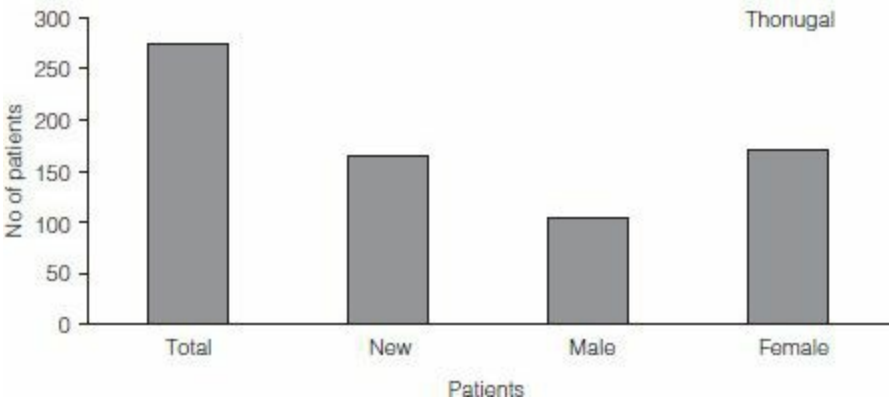

FIGURE 5.16: Number of patients in August 2010

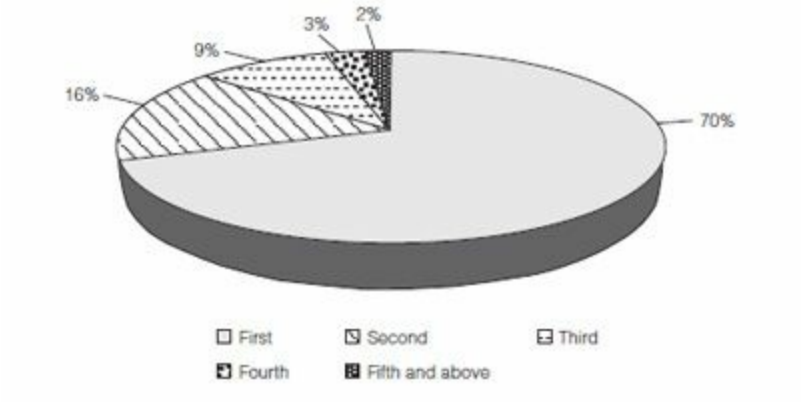

FIGURE 5.17: Number of visits by patients in August 2010

The authors acknowledge the help and support of Mr V. Ponraj in compiling the information about the Meenakshi Mission PURA.