

# FINANCING AGRICULTURE

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## Urban Farming in India: Providing Jobs, Income & Food Security



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ECONOMIC DEVELOPMENT

SECURING STANDARD LEVEL OF  
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# EDITORIAL

A part from providing sustenance to a family, urban farming is a sustainable and desirable activity in itself for a variety of reasons. It provides jobs and income and ensures food safety and security for growers and consumers. It is energy-saving as it cuts out long distance transportation. In the issue of *Financing Agriculture*, we delve into this urban mode of sustainable agriculture and issues pertaining to it. Our writers debate about the topic and reach the conclusion that the biggest beneficiaries are the poor living in urban and suburban areas as it enables them to grow some food not only for their personal consumption but also be a supplementary source of income.

Read about the transformation of the Microfinance sector in India in our overview section. The article discusses issues that have triggered this transformation that include size, diversity, sustainability, focus, and taxation. There is also an article on MFIs in India which discusses the recent problems faced by them in the wake of burgeoning profits experienced by some of them.

Our cover story investigates the role of RWAs in Delhi in securing a standard level of carbon through plantations. Instances of successful plantations have been given due recognition in the above article.

Also featured in this issue; A special story on the impact of women Self Help Groups in the economic development of Andhra Pradesh and book reviews on Nigel Watson's *An Appeal To Reason: a Cool Look at Global Warming* and *The Talent Master* authored by Bill Conaty and Ram Charan.

Do send in your research article on topics related to financing agriculture and allied sectors at [fa.afcl@gmail.com](mailto:fa.afcl@gmail.com)

Happy Reading!

**A.K. Garg**  
Editor-in-Chief

# I N S



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Tel: 91-022-22028924  
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Email: afcl@vsnl.com  
URL: www.afcindia.org.in

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91-120-4727110

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# Urban Agriculture in India: A Survey of Expertise, Capacities and Recent Experience

By Gisele Yasmeen\*

**H**ow will South Asian cities be fed? This is an important question demanding attention due to the rapidly growing urban population of the sub-continent. Urban and peri-urban agriculture (UPA) is one set of activities resulting in greater food production, improved livelihood opportunities for urbanites and the enhanced environmental quality of cities. This report provides an overview of existing UPA resources and activities in India with particular emphasis on Delhi and Bangalore though many examples from other Indian cities are also presented. Documentation on UPA in India is

extensive, particularly concerning composting initiatives, advances in dairying in urban and peri-urban areas and horticultural activities in cities. In other sectors as well, such as peri-urban aquaculture (particularly around Calcutta), the rest of the world has a tremendous amount to gain by paying attention to what has been taking place in India.

Key research issues and challenges with respect to UPA in India and the rest of the subcontinent involve recognising and building the innovative activities already taking place there. This includes

dissemination of information and fostering the extension and replication of experiments and local schemes in other parts of the region. Other challenges involve gathering more information about less documented areas of UPA including animal husbandry, food processing and safety/health issues and connecting India to the larger UPA world.

IDRC's 'Cities Feeding People' program initiative has resulted in the Centre becoming one of the world's foremost authorities on urban agriculture and a prominent repository for information on UPA. The release of this report signals a

growing interest at the Centre on UPA issues in Asia, the world's most rapidly urbanising mega-region. IDRC's South Asia Regional Office is in a position to become actively engaged in the CFP program. Suggestions for this involvement are highlighted in the conclusion and consist of playing a crucial role in the dissemination of information on UPA in the sub-continent. Linking the agents identified in this report through information and communication technologies (ICT) and serving as a clearinghouse for this information will be pivotal. The Centre should also draw attention to the link between improved UPA, poverty alleviation, effective post-harvest technologies, distribution and marketing. IDRC can produce and fund more research on UPA in the South Asian region, particularly participatory, action-based research.

Extensive appendices accompany this document. The first lists more than 100 individuals, institutions and private sector organisations involved in UPA in India and their full contact information including e-mail where available. The second major appendix is a comprehensive, though certainly not exhaustive, bibliography of almost 120 documents. Links to relevant websites are also included.

## Introduction

The International Food Policy Research

Institute in Washington, DC summarises some of the reasons urban agriculture is a fundamental issue to be examined. In some cities, urban agriculture is an important coping strategy for households. Because women often have the responsibility for food procurement for the household, they are frequently involved in urban agricultural production and sales. Urban agriculture presents a number of challenges, including competition for scarce land, degradation of soils and pollution. At the same time, urban agriculture offers new potential for recycling urban wastes, saving on marketing-transport costs and providing the poor with employment.

This report reviews and summarises the extent of research, existing resources and key activities related to urban and peri-urban agriculture (UPA) in India. Urban and peri-urban agriculture (UPA), is defined as "an activity that produces, processes, and markets food and other products, on land and water in urban and peri-urban areas, applying intensive production methods, and (re) using natural resources and urban wastes" (IDRC 2000, [www.idrc.ca/cfp](http://www.idrc.ca/cfp)).

Research was focused primarily on gathering secondary data in Delhi and Bangalore, but a significant amount of information was also garnered with respect to Mumbai. Other parts of India are referred to where information was

available. The result is the creation of a 'map' or scoping document which provides information on the individuals, organisations and agencies involved in UPA as well as brief summaries of their activities and projects.

A concise review of the key issues with respect to UPA in the sub-continent more generally introduces each section of the report. The report also lists existing on-line resources such as websites and databases both interspersed within the main text and toward the end of the document and also includes an annotated bibliography of published and other material.

The conclusion summarises the main findings of the reports and points to lacunae where further research may be undertaken. It also suggests areas where IDRC and others might consider getting involved in future projects.

## Definitional & Methodological Issues

In any context, defining what is meant as a "city" can be complex. While there are very well delineated legal boundaries, which separate, say, urban from rural districts, these borders can change regularly depending on fluctuating socio-economic and demographic conditions. In Asia in particular, defining 'urban', 'peri-urban' and 'rural' is especially challenging where high population densities can result in 'rural' areas being more populated per square metre than, say, Canadian and American cities. In addition, the well-documented trend of "rural industrialisation" has resulted in a further questioning of what is meant by urban versus rural and a blurring of boundaries between activities related to these ostensibly distinct types of places.<sup>1</sup> For the purposes of this report, urban and peri-urban have been based on simple legal and geographical definitions, which identify certain *talukas*<sup>2</sup> as urban, and the rural (or peri-urban) districts immediately surrounding these cities. At times, some information may be included for what are clearly thought of as rural areas in India. These data have been included because they are deemed to have relevance in one way or another to urban and peri-urban agriculture and related activities.

Another difficulty involves deciding what exact range of activities are to be included



**Urban agriculture presents a number of challenges, including competition for scarce land, degradation of soils and pollution. At the same time, urban agriculture offers new potential for recycling urban wastes, saving on marketing-transport costs and providing the poor with employment**

in a report on Urban Agriculture capacity. This is beyond substantive concerns such as whether to include dairying and animal husbandry but refers to how many and what type of “upstream” and “downstream” activities – in addition to the production of food and other agricultural products – are to be included. For example, to what extent should related activities such as suppliers providing inputs such as fertiliser, seeds, composting and technology be included in the inventory? The same applies to downstream services such as those pertaining to the marketing and distribution of urban agricultural products as well as associations representing city farmers (such as the All-India Kitchen Garden Association). The approach used for this report was a broadminded one that includes references to individuals and organisations working in a myriad of upstream or downstream activities directly connected with UA.

A final note about constraints involved in collecting information on UA in India. My assistants and I were dependent on the goodwill and co-operation of various contacts in order to complete this study. While many resource persons and organizations generously gave of their time to respond to our questions, others did not provide information (perhaps due to an incorrect address, contact person or lack of time on the part of the person/organisation concerned). All contacts we came across through word of mouth, on

## The City of Ahmedabad

Professor Suganda Ganapathy of the Indian Institute of Management, Ahmedabad was conducting an extensive research project in the early 1980s. In his report entitled “Urban Agriculture, Urban Planning and the Ahmedabad Experience” (1984) he concentrates extensively but not exclusively on horticulture and traces the historical trends and future potential for UA in the metropolitan area.

Professor Ganapathy concludes that while there has been a decrease in subsistence agricultural activities in the metro area, there exists great potential for greater vegetable and fruit cultivation in the urban area and peri-urban fringe. Similarly, though there was, at the time, a decrease in garden land available, market gardens and home gardens were found in all the villages of the Ahmedabad metropolitan region. Increased peri-urban production was responding to the demand of the growing middle and higher-income groups. At the same time, the author points to an increase in home gardens for the middle and higher income groups, which reflect aesthetic and recreational considerations rather than food or income security concerns.

Professor Ganapathy provided details on the link between co-operatives and UA. The Ahmedabad Co-operative Vegetable and Fruit Growers Association had 2000 members in the mid-1980s. At the time, municipal hospitals were buying produce exclusively from this supplier. Finally, the report explains the Ahmedabad Municipal Corporation's ‘Kitchen Garden Scheme’ of 1983/84 to encourage the production of food in urban areas.

The Centre for Built Environment (“A non-profit Society for Architecture, Human Settlement and Environment”) based in Calcutta, organised a major international workshop on urban agriculture in December, 1995. Unfortunately, no publications issued from the conference due to a lack of funds. However, this event yielded a number of interesting resource persons on UA in India more generally. These persons and the results of the 1995 international workshop might be used as a baseline for future activities in the sub-continent on UA.

Two other general studies pertaining to UA in South Asia exist, but it has been difficult to obtain information about the findings reported in these documents. One, by Sandhiya Chatterjee entitled “A preliminary study of Urban Agriculture in New Delhi” was completed for ETC's India office in 1993. A second consists of the results of a workshop on UA in Dhaka hosted by Proshika, one of Bangladesh's largest non-governmental organisations, in 1997. Further research would be needed to obtain details about the findings of these two projects.

the internet or through existing compendia – whether they directly answered our queries or not – are included in this scoping document.

In terms of a comprehensive, citizen-driven approach to agriculture in an urban setting, the example of Mumbai stands out first and foremost in India. Perhaps due to the fact that it is the most highly urbanised ‘concrete jungle’ of the sub-continent combined with a lack of space for waste disposal the right type of environment has emerged for the creative cultivation of plants and waste reduction through compost development in a dense urban environment. Some of

the key actors of Mumbai in UA – particularly Dr. R.T. Doshi and Kisan Mehta of Prakruti – will be introduced later in this report.

The most comprehensive scholarly study of UA with respect to a specific Indian metropolis concerns the forward-looking policies and experiments undertaken in Ahmedabad, Gujarat, particularly while Keshav Varma was Municipal Commissioner.

The city is known for progressive UA policies with respect to urban horticulture, forestry and solid waste initiatives (Furedy, 1999 - comment on [www.cityfarmer.org](http://www.cityfarmer.org)).



## Pollution & Health Hazards Associated with UA in India

As Kathleen Flynn has observed, the health hazards associated with UA have “traditionally been understudied” (LaBond, 2000). However, with the rapid growth of cities internationally, sustainability and related health concerns have come to the forefront. South Asia is similarly plagued by the ills of unharnessed urban growth and concomitant hazards such as deteriorating air, water and soil quality – all fundamentally related to the health urbanites as well as of flora and fauna found in cities (Cf. SDRI, 1998 & 1999). Some hazards “are a direct result of farming practices,” such as the high density of livestock in a specific location (LaBond, 2000). Given the important

presence of goats, sheep and particularly cattle in Indian cities, this point warrants great emphasis and the work summarised in the next section (with the exception of remarks made with respect to aquaculture) does not adequately address this issue.

The only work that, to our knowledge, systematically addresses one of the health hazards associated with UA in India is a two-phased project managed by Dr. Fiona Marshall of the T.H. Huxley School at Imperial College. The project is entitled “The Impacts and Policy Implications of Air Pollution on Agriculture in Urban and Peri-urban Areas of India.” It is mostly funded by the Department for International Development (DFID) and has been focused in and around Delhi and Varanasi

(formerly Banaras) over the past five years (Marshall, personal communication, 2000).

## Horticulture

A few general remarks need to be made about the nature and important role of horticulture in Indian cities. First, there is a great deal of household as well as commercial horticulture taking place in urban and peri-urban areas of India. Not necessarily all of these horticultural activities are ‘organic’ and, indeed, there are several examples pointing to the extensive use of chemical fertilizers, pesticides and herbicides in both private gardens and commercial market gardens. Finally, extensive vegetable gardening fed on uncomposted organic waste is practiced in Calcutta.

## Vegetable Cultivation and Marketing in Delhi

Two helpful publications, which shed light on peri-urban agriculture, concern vegetable marketing in the Union Territory of Delhi (Bhupal, 1989 & 1999). “The study finds that the economic indicators, demand for vegetables and overall profitability of vegetable cultivation, compared with other competing crops are favourable for the promotion of vegetable cultivation... around Delhi” (Bhupal 1989, i & iv). Given the fact that the capital city has the highest per capita income in the country, vegetable cultivation and distribution can be a very profitable activity (Bhupal 1999, 1).

In the earlier study, Bhupal explained that local producers “mainly cultivate in the Yamuna bed and in outer North-West Delhi from Teekri Border to Najafgarh” (1989, 4). At the time, he explained that almost two-thirds of the total area in Delhi fell under the classification of rural Delhi. Most vegetables were grown in Alipur, Nangloi and Shahadra and were linked to the main wholesale market in Azadpur by *pukka* roads ranging in length from 11-35 kilometres.

Ten years later, due to the tremendous growth of the city, the author identified the peri-urban hinterland where vegetables are produced as expanding to six districts in two neighbouring states. Haryana (Gurgaon, Sonapat, Faridabad, and Rohtak) and two districts in the state of Uttar Pradesh (Meerut and Gaziabad) were included (Bhupal 1999, 4). He also established a typology of major actors in the market, which helps the reader put commercialised UPA activities into the larger perspective of the urban food distribution system.

In both studies, Bhupal describes the nature of farming activities on the outskirts of Delhi. First, there are the large commercial farms employing expensive agriculture inputs and cheap migrant labour. These farmers benefit from economies of scale and all have cold storage facilities, technology, financing and extension services at their disposal. This is a stark contrast to the peri-urban agriculture being conducted by poor and marginal farmers who employ family labour, rent their land and even their bullocks thus reducing their profitability and long term livelihood prospects in UPA. “Around Delhi, because of an

assured market even the landless are engaged in this profession and are somehow able to subsist, which in remote areas of the country may be unthinkable for them” (1989, 11).

In 1989, Bhupal argued for land reform and policies that favoured the distribution of vegetables through co-operatives - such as Super Bazar and Mother Dairy - and overnment agencies. This has indeed taken place, but farmers do not seem to have benefited as a result though the quality of vegetables has increased and waste has been reduced due to improvements in storage and distribution. As far as the promotion of “alternative” urban horticulture is concerned, the work of the Institute of Natural and Organic Agriculture (INORA), and specifically the contribution of Dr. Ramesh T. Doshi stands out in Mumbai as a lead in the area of urban horticulture (see Box 1). In India in general, there is a lot of interest in alternative agriculture and its link with integrated resources management and social sustainability perhaps due to the success of the well-known Ralegan Siddhi transformation.

The box below profiles the commercial aspects of peri-urban agriculture in the capital city of Delhi.

### Dairying

Entire books have been devoted to the “white revolution” that has taken place in India over the past few decades (Candler and Kumar, 1998; Chen *et.al*, 1986; Doornobos and Nair, 1990; Kurien, 1992, 1997). India’s transformation from a situation of grave milk scarcity in the 1940s and 1950s to becoming the world’s number one milk producer in the 1990s is a well-known success story. The most celebrated figure associated with “Operation Flood” - the official name of the program designed to increase milk production while keeping power in the hands of typical milk producers - is Dr.

Vergheese Kurien, India’s “milkman” and recipient of the World Food Prize (1989) among many other honours. Dr. Kurien is now nearly 80 years old and still active in the communities he has nurtured over the past fifty years.

In 1998-99, India surpassed the USA in terms of dairy production making it the world’s largest milk producer (NDDDB, 1999). However, unlike the North American strategy of “modernising” the dairy industry, India has not sacrificed its small milk producer. Instead, India’s white revolution has been based on organising the country’s traditional milk producers - most of whom are women who only own and tend to one or two cows or buffaloes - into federated co-operatives which then sell the milk to modern chilling and distribution centres. The most

well-known of these cooperatives is the Anand Milk Union Limited, or AMUL, India’s largest food products marketing organisation. It comprises 10, 183 village societies for a total of 1.95 million producer members ([www.amul.com/gcmmf.html](http://www.amul.com/gcmmf.html)). AMUL supplies milk and dairy products, such as butter and curd, throughout the country. AMUL’s success has resulted in it often being referred to as simply the “Anand model” based on co-operatives and the ownership and control of small-scale women dairy farmers.

As a result of Dr. Kurien’s efforts with the first fledgling milk cooperative in the late 1940s and 1950s, the National Dairy Development Board (NDDDB) was created by then Prime Minister of India Lal Bahadur Shastri in 1965. When

## Dr. R.T. Doshi’s City Farming Initiative: Bandra, Mumbai

*Padmashree* recipient, Dr. Ramesh T. Doshi, an economist by training and one of the founders of the Institute for Management Development & Research (IMDR) in Pune, was associated for many years with the marketing of NPK products which included nitrogen, fertilisers, organic manure and other agricultural inputs. After retirement, he began working on his farm near Pune and became aware of the many challenges associated with subsistence agriculture — particularly low returns, high labour input and low profitability. At the same time, he began to reflect on the high cost of food in the cities and the need to produce more food in urban areas. Urban agriculture also lessens the need for the use of toxic chemicals as fertilisers and pesticides.

Hence, Dr. Doshi began experimenting with food production on the terrace of his bungalow in Mumbai after retiring at the age of 61. He has perfected a method of growing fruits and vegetables for domestic consumption, which involves relatively low labour input, organic production methods and very high yields. “Dr. Doshi today grows vegetables, pulses, fruits and

cereals... and has raised mango, fig and guava plants and also harvested bananas and sugarcane.” (*City Farming Innovations, 2000*).

His methods have been adopted throughout Mumbai and also in neighbouring cities, such as Pune “leading to a profusion of city vegetable gardens, and improving local environments, family nutrition and public health overall”. The ‘Doshi method’ involves planting in polyethylene bags or 45 gallon drums with the bottoms stuffed with biomass, such as sugarcane stocks from sugarcane juice vendors (something that normally goes to waste). One quarter of the bag is then filled with compost and the remainder with soil. Dr. R.T. Doshi attributes his success to the ideas of Shripal Achyut Dabholkar from Kolhapur who set up an institution called “Prayog Parivar” devoted to “natural” farming based on indigenous practices with a community focus.

In Bangalore, the work of Agriculture Man Ecology (AME), with the support of The Netherlands administered by ETC Netherlands, is actively promoting organic farming and “Low External Input Sustainable Agriculture” (LEISA) in conjunction with 30 NGOs in the states

of Karnataka, Andhra Pradesh and Tamil Nadu. Mans Lanting, Dutch agronomist and Director of AME estimates that “at least 15 per cent of all farmers around Bangalore are small scale ones and can easily go organic” (Daksha Hathi, 1999). “Seventy per cent of farmers with whom we have dealings are women belonging to self-help groups, and they are motivated,” adds Lanting (R.J. Rajendra Prasad, 2000).

Having recently published a manual on organic farming, AME is now working with small-scale farmers, home gardeners and medium-scale farmers in Bangalore, Dharwad, Coorg, Hubli, Chitradurga and Mysore. These efforts have resulted in organic vegetables becoming available to consumers in five outlets in Bangalore (Daksha Hathi, 1999). In addition, AME publishes the LEISA India Newsletter and has had generous coverage by the media in India resulting in broad dissemination of information on their work. There are several other not-for-profit agencies, public or private enterprises and individuals that can be mentioned in this section on urban horticulture. The following play a supportive role in the fostering of fruit and vegetable cultivation in cities and their immediate hinterlands.



Operation Flood was launched in 1970 to replicate the Anand Model, only 278 thousand farmers were involved in the program producing 190 tons of milk. Eighteen years later, over six million dairy producers in 50,000 co-operatives were producing three million tons of milk per year reaching more than 500 cities and towns throughout India. Though some of these dairy producers are located in what are firmly considered to be rural areas in the Indian context, many more are located in peri-urban areas so that they can more easily supply the large number of urban consumers.

With the growing rate of urbanisation in India, there are increased opportunities for dairy producers to supply value-added dairy products such as butter, curd (yoghurt) and *ghee* due to increased demand and urban women's changing roles. Whereas, traditionally, even city-dwelling women would make their own butter and *ghee*, today, few young

women have the time, skills and desire to do so.

### **Aquaculture**

The only information that was obtained on urban aquaculture in India pertains to West Bengal. This is apart from general works on aquaculture (Giriappa, 1999; Shiva and Karir, 1996; Srivastava, 1993). In particular, the Salt Lake area of Calcutta is internationally renowned for the harvesting of fish and other food products in a wetland fed by urban waste and rainwater. (Prof. CK Varshney, personal communication, 2000). Bengalis, being a fresh-water fish eating population, have a long and distinguished history of creating and managing fishponds in both urban and rural areas.

### **Animal Husbandry**

Apart from the information on dairying, it is surprising how little information there is about animal husbandry in urban and

peri-urban areas in India given the ubiquitous proliferation of livestock in South Asian cities. The preponderance of cattle in the country's urban areas is already well known. According to Dr. Saket Bhusan, "India ranks first among the countries of the world in goat population." (Bhusan 1999b, 17). The same author documents the popularity of pig rearing among both urban and rural dwellers of the state of Mizoram, in the Northeast, where he is lecturer in Animal Husbandry at Pachhunga University College.

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*\*The writer is a Ph.D in Principal, Agora Associates, North Vancouver, BC & a Research Associate, Sustainable Development Research Institute, & Institute of Asian Research, University of British Columbia.*



# City Farming – the Natural Alternative, Experiences in India

*An example of sustainable agricultural and sustainable initiative, using traditional and indigenous knowledge and appropriate technology*

By R.T. Doshi\* Sunil Doshi\*\* and Vandana Shah\*\*\*

After retirement, Dr. Padmashri R.T. Doshi, started working on his farm at Kamshet, near Pune, and discovered the immeasurable problems faced by farmers. He discovered that if farmers include the cost of their labour in the calculation of farm profit and loss, all farms would be unprofitable. This led him to think very seriously about reducing the costs of farming and labour. Dr. Doshi has experimented with a number of farming practices that enable city dwellers to grow their own food on every available square inch of urban space, including terraces and balconies.

One of the innovations recommended does not involve high costs, nor does the farming require long hours of work. Every member of the family can be involved in the maintenance of the city food garden, including the elderly. The farm can

provide the family with ample nutrition from plant sources, eliminating the need to purchase one's vegetables and fruits from the market, where inflation makes a mockery of housewives' budgets.

## Innovative Experiences

High-density polyethylene bags are used for the growing vegetables and cereals (the kind used to pack 50 kg of cement or fertilizers), with a diameter of around 22.5 cm and a length also of 22.5 cm. For crops like sugarcane, bags with large diameters are essential (35 cm). Fruit trees like fig, guava and mango have to be grown in bags, that have a diameter from 45 to 52.5 cm. The bags must be open at both ends; hence the base of the bag must be cut open. After selection of the appropriate bags according to size, the next step is to fill

them with soil. If soil is put as it is into bags, it will fall out the other end, which has also been opened. To prevent this, the bottom half of the bag is tightly packed with biomass of any kind. Dr. Doshi often uses waste sugarcane stalks, collected from a sugarcane juice vendor outside his house.

The material is for free and the sugarcane juice vendor is glad to get rid of it. Functioning as a kind of giant plug, the stalks keep the soil in the bag, but at the same time, are sufficiently porous to allow the water given to the plant, to drain out easily. After the base is plugged, half of the remaining space inside the bag is filled with compost, either made in the house, or purchased from garden stores. At the institute compost is produced by putting cow dung, organic material and water in polyethylene bags and leaving

them to break down for six weeks (as illustrated in Figure 1).

Compost can be made in many ways, but the suggested method requires the least amount of labour. It is ideal for city homes since the bags are kept closed and therefore, there is little chance of them being infested with vermin or other undesirable insects such as cockroaches.

The remaining space at the top of standing bag is filled with normal garden soil; approximately 2 to 4 kg of soil would be required for every 0.11sq. m. of area. The bags are soaked with water two to three times and the water is allowed to dry. It is now ready for planting. Seeds should be carefully selected. They can be taken from one's own kitchen (groundnut, cereals like wheat), or bought from the store. The important point here is how one plans the planting. The Institute recommends 'chain-planting', where plants are grown to provide for small quantities of vegetable at staggered intervals and not a large quantity all at once. Seeds, cuttings or grafts can be placed in the bag and with

## Recycling of Kitchen Waste at Central Kitchen, Mumbai Port Trust

After a training programme on 'City Farming' given by the International Institute of City Farming, Mumbai Port Trust has developed an organic farm on the terrace of it's central kitchen (which is about 3000 sq ft (279 m<sup>2</sup>) area). Firstly, the farm was started to dispose of kitchen organic waste in an eco-friendly way. All kitchen staff members, after their daily work in the kitchen, tend the garden, which has about 275 plants. Besides the eco-friendly disposal of waste, the employees, who are not professional gardeners, experience creative pleasure in a friendly social environment. In a span of five months fruits like pomegranate, guava, sugarcane, and a range of vegetables like ladyfinger, tomatoes and radish were produced. Many people visit the farm, and the workers take pride in showing them around the garden. The positive response has helped add to their self-esteem. This can be seen from their enthusiasm and changed attitude. The farm was awarded the 2nd prize by the National Council of Friends of Trees in the annual show held in February 2003.

the right amount of watering, they begin to take root and flourish. Seeds may be placed 1.5 to 2 cm below the soil level and three weeks later, the plant will have fully emerged from the soil. Leaves may be given foliar sprays and pests should be dealt with, as far as possible, using non-toxic, homemade solutions.

Water use in this so-called 'Doshi System' is also considerably less than in conventional soil farming. Since the plant grows in sealed bags or other cylindrical bags or containers, considerably less water is needed when compared to growing on fields, where most of the water evaporates. The system is suitable for any scale of operation and in any open space. Dr. Doshi uses these bag systems to grow a variety of fruits, vegetables and cereals. He has also grown 10,000 sugar cane plants. Both small and large farmers can use this method, since it is easily replicable and depends, very much, on materials available in the local environment.

Dr. Doshi's good practices could have a significant impact on policies relating to food production. Today, most governments have fallen into the trap of reallocating all the food production to the countryside. New policies supporting such forms of urban agriculture should now be encouraged. Urban farming brings health and other benefits (including recreation and physical exercise) to city folk. Farms of the kind promoted by Dr. Doshi can also reduced food prices. Even if the vegetables and fruits produced are not destined for the market, their availability to households in the cities can help to reduce food scarcities.

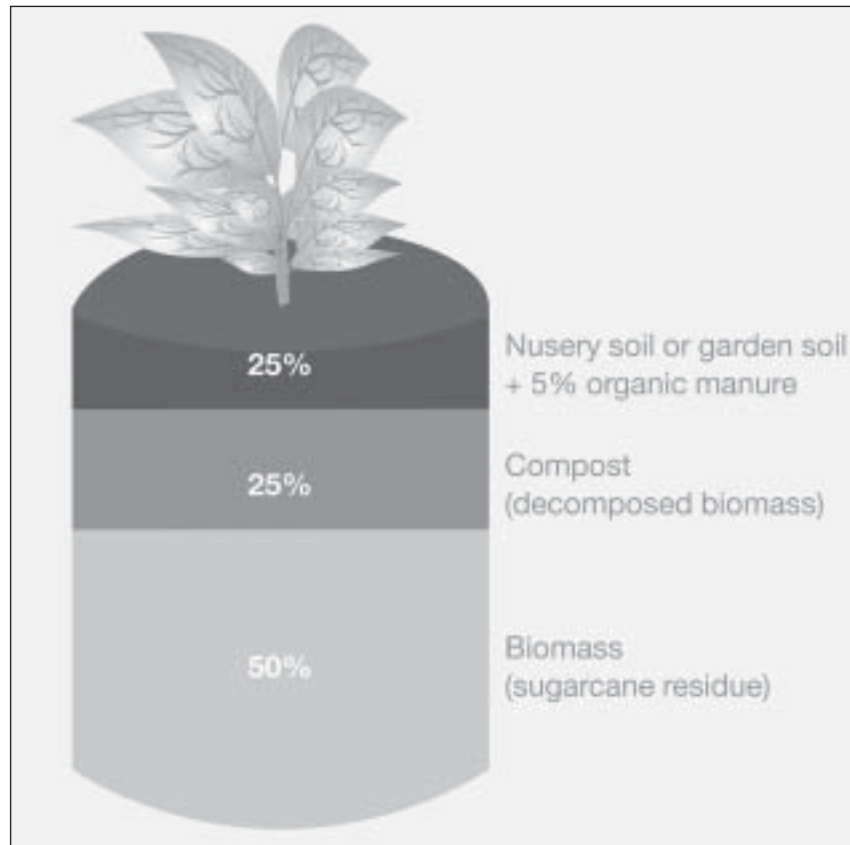


Figure 1. The different layers required in the containers to grow the plants

The writers are owner of  
[www.cityfarming.com](http://www.cityfarming.com)

# Urban Agriculture: For Sustainable Poverty Alleviation and Food Security

Excerpt from a report by World Bank

The article provides an updated insight on the role that urban agriculture can play in pursuing the Millennium Development Goals. Reference is made to urban agriculture in relation to the recent and important issues affecting the world economy and the environment, regarding climate change, soaring food and energy prices. It intends to raise awareness and inform decision makers and planners of the different aspects of urban agriculture, which entails a broad range of activities, related to the food production and distribution chain, within natural

resources planning and use, including urban and peri-urban forestry. The paper further illustrates ongoing initiatives that substantiate how UPA can, in different environments, play its role as a source of employment, income and food which are the indicators towards poverty reduction and improved food security. Without being exhaustive, reference is made to major key players and stakeholders that are committed and involved in advocating and promoting UPA as a key area of agriculture policy and sustainable development strategies. The paper intends to provide the necessary

background that would facilitate further initiatives and recognize UPA as a means to improve the livelihoods of the urban poor.

## Introduction

By 2020 the developing countries of Africa, Asia, and Latin America will be home to some 75 percent of all urban dwellers, and to eight of the anticipated nine mega-cities with populations in excess of 20 million. Most cities in developing countries have great difficulties coping with this development and are unable to create sufficient formal



employment opportunities for the poor. They also have increasing problems with the disposal of urban wastes and waste water and maintaining air and river water quality. It is expected that by 2020, 85 percent of the poor in Latin America, and about 40-45 percent of the poor in Africa and Asia will be concentrated in towns and cities. The rapid urbanization goes together with a rapid increase in urban poverty and urban food insecurity. Poverty, hunger and food insecurity have human rights implications. Indeed, it is now widely accepted that poverty should not be seen only as a lack of income, but also as a deprivation of human rights and that hunger constitutes a violation of the human right to food.

Policy decision and integration of UPA into development strategies are prerequisites to efficiency and long term sustainability of UPA programs, which need to address multi-sectoral and multi-disciplinary issues including crop and

livestock production, aquaculture, agro-forestry in the overall context of proper natural resource management.

Rising food prices, has an ever more negative impact on the potential access to adequate food for the poorer sectors of the urban population. With the urbanization process, urban and peri-urban agriculture has evolved from a simple, traditional and also informal activity into a commercial and professional initiative. UPA has become a key element in food security strategies.

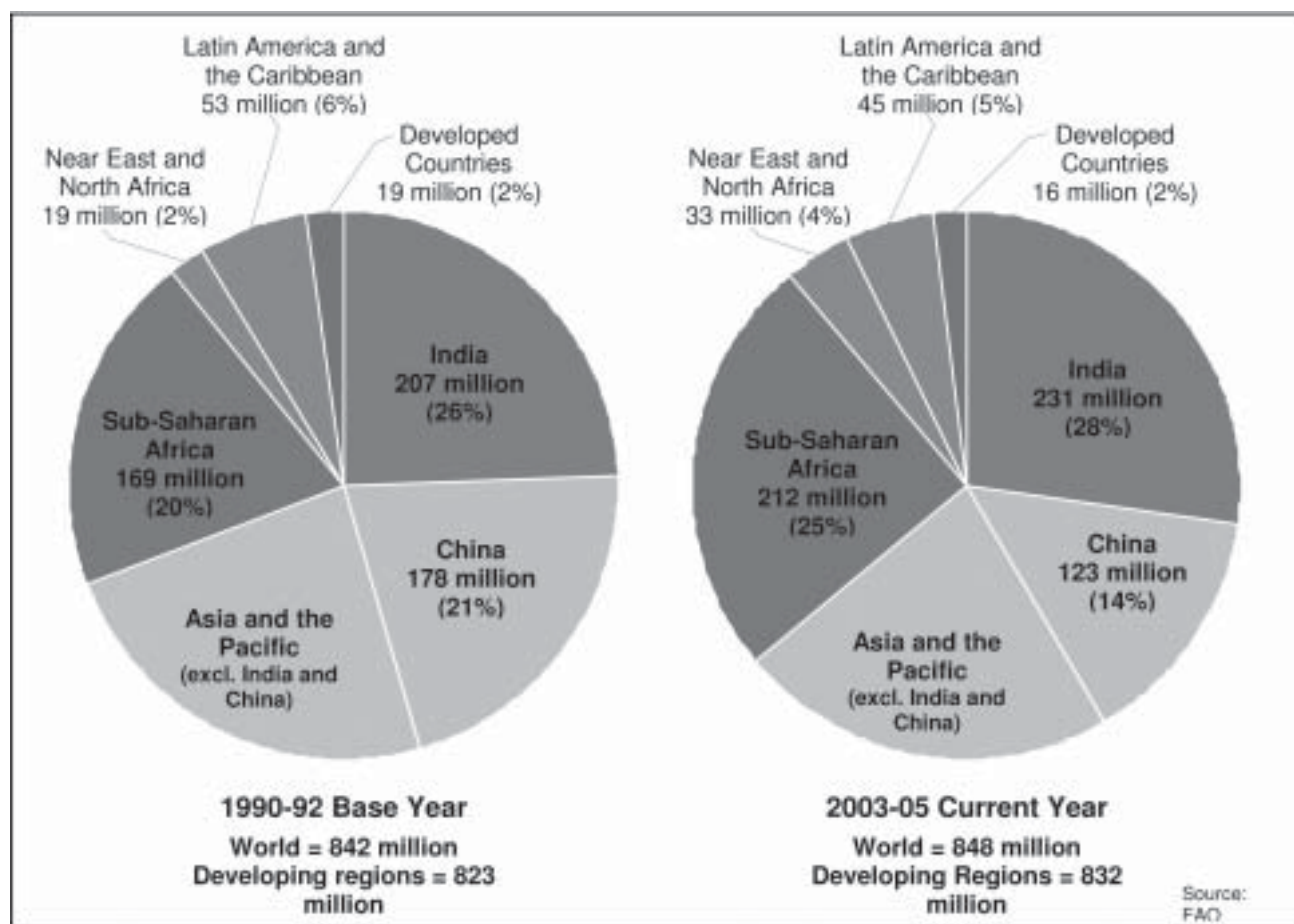
Urban and peri-urban agriculture is an industry located within (intra-urban) or on the fringe (peri-urban) of a town, a city or a metropolis, which grows and raises, processes and distributes a diversity of agriculture products, using largely human, land and water resources, products and services found in and around that urban area.

Poverty and food insecurity have been

considered for decades to be rural problems. Some analyses have shown however, that urban poverty is not only growing rapidly, but has tended to be underestimated in the past. Figures on levels of urban poverty for nations or for particular cities are much lower than the proportion of people living in very poor quality housing, lacking basic infrastructure or services. Vulnerable groups in cities often have fewer informal safety nets (kinship and community networks). Their dependence upon purchased food is further compounded by their incapacity to access and use natural resources to produce their food. Most authors on urban poverty agree that poverty is clearly becoming more urban. Urban and peri-urban agriculture contributes to food security, nutrition and livelihoods in a combination of ways:

- Providing for family self-consumption, thus contributing to healthy diet and allowing for saving

Figure 4: Trends in global undernourishment, 2003-05 compared with 1990-92



on food expenditures;

- Providing a source of income, through sale of surplus or specialized and intensified commercial oriented production systems;
- Improving the supply of local markets with fresh and micronutrient rich foods at competitive prices; and,
- Ensuring a continuum of tree cover through landscape management and use of agro-forestry systems, hedgerows and woodlots.

UPA already provides a substantial contribution to the food for the cities in many countries. Yet, with the rapid growth of the urban population and the low nutritional levels of the urban and peri-urban poor, there is tremendous scope for increasing this source of supply. Benefits of UPA include:

- Non-market access to fresh, nutritious food for poor consumers, and income generation (especially for women);
- Supply of urban food markets, street food and food processing, providing additional employment and income;
- Water harvesting, water re-use, and urban wastes re-cycling to provide water, animal feed and fertilizers for demands of UPA;
- Integrating UPA with urban greening (UG) programs, which can provide

fuel wood for urban residents, reduce urban pollution and temperatures, and offer recreation opportunities to improve quality of life for all urban residents, and in particular for youth and elderly people; and,

- Providing an opportunity for participation of urban residents to benefit from the implementation of UPA/UG programs, specifically stimulating the involvement of women as complementary activity.

### Urban Agriculture to Improve Food and Nutrition Security of the Urban Poor

Until recently poverty was synonymous with rural conditions, but rapid urbanization, also due to migration from extreme events (conflict, natural disasters...) in many developing countries has given birth to a large class of urban poor. It is estimated that about one-quarter of the developing world's poor live in urban areas, but also that poverty is becoming more urban and that the poor are urbanizing faster than the population as a whole.

Poverty and food insecurity have been considered for decades to be rural problems. Some analyses have shown however, that urban poverty is not only growing rapidly, but has tended to be underestimated in the past. Figures on levels of urban poverty for nations or for particular cities are much lower than the

proportion of people living in very poor quality housing, lacking basic infrastructure or services. Vulnerable groups in cities often have fewer informal safety nets (kinship and community networks). Their dependence upon purchased food is further compounded by their incapacity to access and use natural resources to produce their food. Most authors on urban poverty agree that poverty is clearly becoming more urban.

Although cities have increasing concentrations of poor people; for most people, cities represent the best hope of escaping poverty. Malnutrition in all its forms is a growing concern in cities. While there are certainly more foods available year round and more jobs and social services in urban areas, not everyone is able to benefit. A growing number of urban poor face a daily struggle to feed their families. Disadvantaged urban households may have to devote an extremely high proportion of their disposable income to food, between 54 percent and 76 percent in Sub-Saharan capital cities. It is obvious that in this urban context, the higher the proportion of income spent on food by low socio-economic groups, the more precarious their food situation is likely to be, although food budget shares in different cities may not be directly comparable.

In urban settings, lack of income translates more directly into lack of food than in a rural setting. In all regions, urban and peri-urban agriculture is an activity in which the poor are disproportionately represented. Food production in the city is in many cases a response of the urban poor to inadequate, unreliable and irregular access to food, and the lack of purchasing power. Engagement in farming in urban areas has also been shown to be associated with greater dietary diversity in most countries.

It is therefore essential that appropriate strategies be put in place to ensure availability and affordability of safe and healthy foods, promoting the production of such foods in urban and peri-urban areas thus enhancing livelihoods of actors along the value chain. The contribution of urban and peri-urban agriculture to food security and healthy nutrition for the urban population is probably its most important asset.





Urban and peri-urban agriculture contributes to food security, nutrition and livelihoods in a combination of ways:

- Providing for family self-consumption, thus contributing to healthy diet and allowing for saving on food expenditures;
- Providing a source of income, through sale of surplus or specialized and intensified commercial oriented production systems;
- Improving the supply of local markets with fresh and micronutrient rich foods at competitive prices; and,
- Ensuring a continuum of tree cover through landscape management and use of agro-forestry systems, hedgerows and woodlots.

Access to food in urban areas very much depends on the ability to generate income. In this context, governments should recognize the role played by UPA and street food in making food available to poor families in urban areas and in generating income for women. Small scale UPA activities are known to be very appealing for women because can be practiced as a part-time commitment combined with other numerous task related to the household and childcare. For example, micro-gardens systems are very popular since their cultivations require less physical effort as compared to conventional growing systems. While, women take advantage of the yields obtained in household gardens to diversify the family food intake resulting in healthier diets, they also obtain a regular income to sustain other expenses for food, education or clothing requirements.

### Food Security and Right to Food

Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. In urban areas, the main constraints for the access to food for the household are of economic and physical nature. Food prices and household income are the two economic parameters, while distance, and costs of transport from and to markets, may represent physical constraints. Urban and peri-urban agriculture can favourably

mitigate these constraints by making food and income available at household level. Household food production in urban environments, covering a diversified range of food commodities (essentially fruits and vegetable crops, small livestock, dairy products, eggs, etc), will enrich the family food intake and provide for a healthier diet according to own culture and food preferences. UPA offers an advantage because of producing locally instead of being dependent on world prices, which varies according to global markets speculation.

virtue of being human. The definitions of the right to food are similar to the definition of food security: Every human being everywhere should have the ability to produce or purchase safe, sufficient and nutritious food that is culturally acceptable, for an active, healthy and dignified life. A rights-based approach complements food security by recognizing the existence of legal entitlement of rights holders and of legal obligations of duty bearers towards the former. It is based on the value of human dignity and makes the individual an agent



This means that UPA is able to guarantee a minimum level of "food self sufficiency", especially for the poor with low purchasing power. While food security is a technical definition and a political goal, the right to food is a human right that every person should enjoy by

of change in a way that enables him or her to hold governments accountable and to seek redress for violations of his or her rights. The rights-based approach to food security is also reflected in FAO's Strategic Framework 2000-2015 which stipulates that the Organization is expected to take

## Urban Micro-finance in India

While 70 percent of India may still be “found in its villages”, India, like the rest of the world, is increasingly urbanizing. Depending on measurement criteria, two to three of the ten largest cities in the world can be found in India, and it is estimated that the country will be more than 40 percent urban by the year 2030. While the number of rural poor decreased from 25.7 crores (257 million) to 19.3 crores (193 million) between 1991 and 2001, the number of urban poor actually increased from 5.2 crores (52 million) to 6.7 crores (67 million). Despite the large numbers of urban poor, most of who have little or no access to formal financial services, there is relatively little outreach of microfinance in major urban areas today. Interestingly, the rural focus of microfinance in India, and much of Asia, is in stark contrast with the predominantly urban orientation of microfinance in the rest of the world. While Indian microfinance practitioners have expressed reluctance in the past to target urban markets due to perceived high levels of client mobility and weaker social ties, many practitioners in other regions of the world are often reluctant to penetrate rural areas due to perceived high costs of outreach. Despite persistent efforts on the part of the global microfinance sector in knowledge capture and dissemination, there remain some matters on which regional markets still have much to learn from each other.

Though much of the energy of the Indian microfinance sector to date has been directed towards the rural poor, some of the pioneers of the sector have always had a strong focus on urban poverty. SEWA Bank, for example, was founded in 1974 and has over 1.5 lakhs (150,000) clients, most of them in urban Ahmedabad. Similarly, Working Women’s Forum has been providing microfinance and other livelihood services to poor women in Chennai since 1978. Interestingly, both these institutions have been guided by a holistic approach to combating poverty, steeped in a deep understanding of the myriad of challenges faced by the urban poor. On comparing the purpose and size of loan, it is clear that larger loan amounts (> Rs. 20,000) are being used for productive assets, such as work equipment, livestock, and housing and infrastructure. The average loan outstanding depends on the purpose for which the loan is taken as shown below.

Loan Type	Average Outstanding Amount (in Rs.)
<b>Enterprises:</b>	
Work Equipment	30,000
Livestock	33,000
<b>Consumption:</b>	
Infrastructure/Housing	27,000
Social Expenses	25,200
Education	14,500
Medical	9,600
Others	3,000

Figure 9: Enterprise Loans Are Much Larger Than Consumption Loans

**Source:** Michael & Susan Dell Foundation and CARE India - 2006, A Promise to Pay the Bearer, An Exploration of the Potential for Urban Micro-finance in India.

into full account “progress made in further developing a rights-based approach to food security” in carrying out its mission of “helping to build a food-secure world for present and future generations”.

### Urban Agriculture: Challenges and Lessons Learned

With the urbanization process, urban and peri-urban agriculture has evolved from a simple, traditional and also informal activity into a commercial and professional initiative. UPA has become a key element in food security strategies. It was officially recognized by the World Food Summit in 2002.

Urban and peri-urban agriculture is an industry located within (intra-urban) or on the fringe (peri-urban) of a town, a city or a metropolis, which grows and raises, processes and distributes a diversity of agriculture products, using largely human, land and water resources, products and services found in and around that urban area.

The phenomenon of urbanization brings severe challenges to ensuring household food security in a context characterized by high rates of unemployment, increasing development of the informal sector, deteriorating infrastructure, overcrowding and environmental degradation.

In addition, cities should respond to increasing globalization; managing the process of decentralization; and providing basic services to the burgeoning urban poor, whose contribution to the economy is not usually matched by their access to basic services. In most cases, urban residents in developing countries are increasingly exposed to the daily challenges, such as lack of safe water, inadequate sanitation and lack of environmental safeguards (air pollution, exposure to toxins and waste), and increased poverty and food insecurity. In most cities of the developing countries, urbanization has become virtually synonymous with slum growth. The slum population in these countries almost doubled in 15 years, reaching 200 million in 2005 (UNFPA, 2007).

Tension has been especially high in the growing cities which depend on diminished supplies from rural areas and

the global food market. With over 50 percent of people in the world living in urban environments, urban food security has become a huge issue, especially in developing countries where infrastructure is poor and general poverty cannot accommodate increasing food prices.

Calling the worsening of the 'world food crisis' a serious threat to the realization of the right to food for all, the UN Human Rights Council adopted by consensus a resolution affirming the importance of taking into account the right to adequate food, as recognized in international law.

Indeed, developing responses to many of the challenges under the framework of the right to food would ensure that these responses would be better guided by the needs of the hungry and the malnourished. It would pave the way for targeting, but also for prioritization, coordination, accountability, and participation.

Many rural migrants, seeking better livelihoods in cities, have agricultural backgrounds and often end up participating in informal activities, such as urban and peri-urban agriculture (UPA). The United Nations Development Programme estimated in 1996 that 800 million people are engaged in urban and peri-urban agriculture world-wide. Of these, 200 million are considered to be market producers, employing 150 million people full-time. In African countries 40 percent of urban dwellers are said to be engaged in some sort of agricultural activities.

Important sectors of UPA include horticulture<sup>8</sup>, livestock, fodder and milk production, aquaculture, and agro-forestry. Urban and peri-urban agriculture is typically informal but wide spread, and often done under extremely difficult conditions. Urban and peri-urban agriculture may help to solve some of the problems of city authorities through integrated programs of waste water re-use and organic waste recycling, as well as through the integration of market wastes with urban fodder consumption.

What these diverse activities have in common is proximity to large settlements of people, thereby creating opportunities as well as risks. The opportunities include:

- Access to consumer markets;
- Less need for packaging, storage and transportation of food;



- Potential agricultural-related jobs and incomes;
- Non-market access to food for poor consumers;
- Availability of fresh, perishable food;
- Proximity to services, including waste treatment facilities; and,
- Waste recycling and re-use possibilities.

The risks include:

- Environmental and health risks from inappropriate agricultural and aquaculture practices; and,
- Increased competition for land, water, energy, and labour.

*Excerpt from a report by World Bank  
Dated: 30 October 2010*



*A view of the park where the plantation has been carried-out*

# Securing Standard Level of Carbon through Plantation

## *Role of Delhi Resident Welfare Associations (RWAs)*

By Harjeet Singh\* and Binaxi Chauhan\*\*

Delhi has seen rapid urbanization and modernization of its infrastructure in the last decade such as Mass Transit System (Metro Rail), Highway Development etc. Though, felling of trees is prohibited in Delhi by the Delhi Preservation of Tree Act, 1994, cutting of trees is often unavoidable for developmental work. Therefore, in order to compensate the loss of trees felled for various reasons, it is important to involve RWAs (Bhagidari scheme) for the plantation of the saplings and increasing green spaces which will provide them the opportunities for both passive and active interaction. During the pendency of the study, it has been noticed that maintenance of the parks and plantation is beyond the expectation and members

of the Executive Council of the RWAs have been found to be keen not only in plantation of saplings for beautification and pollution control, but they have invariably expressed interest for the establishment of herbal gardens. Green plants play a key role in maintaining ecological balance in the biosphere. Apart from their unique property of harvesting solar energy through photosynthesis, they also play a pivotal role in shaping our environment, which includes their moderating influence on microclimate, water availability, soil fertility and many other aspects of our environment.

### Introduction

It is, extremely pleasing to learn that the National Capital Region is blessed with

its legacy rooted deep in the history and culture of the country, and the rulers of Delhi have always taken adequate care to ensure the quality of its environment. For example, the Sultanate of Delhi, in its regime had made the practice of social forestry a popular measure to secure the environmental balance of the region. Since then the pivotal role played by the forested landscapes in maintaining ecological and economic sustenance is well-known. Ironically, these landscapes are under tremendous pressure now due to the ever increasing demand for land and other goods and services obtained from such landscape.

Happily enough, since independence, each successive Government of the

National Capital Territory of Delhi has been trying its best to secure the existing forest cover and tree wealth as well as to ensure its further extension to 33 percent of its geographical area, in order to meet the requirements of the National Forest Policy, 1988. It is here that the role of a number of Greening Agencies and citizens in the endeavour of securing maximum plantation for the Delhites becomes clear. We must remember that the greening of Delhi is possible only with support of people, particularly the Resident Welfare Associations (RWAs), Educational Institutions, NGOs, industries, farmers, Market Traders Associations, etc.

An analysis of the 9 districts reveals that between 2003 and 2005 data, 5 districts have recorded higher forest cover with New Delhi showing the largest increase of about 1.5 sq. km, and South West Delhi recording a rise of nearly 1.4 sq. km. Other districts which have done well are North West Delhi, North Delhi and West Delhi. This is on account of the fact that Delhi Government has been planting

more than 1 million trees every year since 2002. In the districts of Central Delhi, due to lack of availability of land the tree cover has not increased, but in the remaining 3 districts of East Delhi, North East Delhi and South Delhi the increase has been very marginal. The Delhi Government has noted these phenomena, and all-out efforts will be made to concentrate on these three districts for more intensive tree plantation.

Trees have had a special place in our lives since times immemorial and this ethos has found expression in our religion, creative arts, and Ayurveda. These are regarded an essence of the life support system of nature that sustains all life forms on the earth, being essential for the conservation of the soil and water resources. On the contrary, deforestation results in soil erosion, which in its wake results in severe ecological imbalances.

As per the State of Forest Report, 2003 of the Forest Survey of India, Dehradun, the National Capital Territory has 288 sq

km as Tree Cover and Forest, against the total geographical area of 1,483 sq km. This represents 18.07 percent of the total geographical area of Delhi. The Forest Cover and Tree Cover in the NCR are represented by 170.17 sq km and 98 sq km, respectively. The territory seems overwhelmingly green from above. However, this green cover is not uniformly distributed. Of the nine districts recognized in the NCT, the New Delhi, South and South-West Districts possess much more greener areas than the others.

#### Role of RWAs in Tree Plantation

As many as 45 RWAs have been selected in 9 districts of NCT of Delhi for the assessment of tree plantation/tree cover and their role for proper maintenance. The plantation acts as a carbon sink by removing the carbon and storing it as cellulose in their trunk, branches, leaves and roots while releasing oxygen back into the air. District-wise details on the status of RWAs under the study areas are as follow.



Early spring; young leaves of *Lagerstroemia indica* in the flowering stage



*Young leaves of Lagerstroemia indica with Cassia fistula*

The North-west district where 5 different RWAs were contacted comprises colonies having university teachers (Vaishali), school teachers (Sarswati Vihar and Ghalib apartment) mixed or office going persons. It has been noted that the inhabitants are deeply conscious about the environment of their colonies as well as security and except for the Nagloi Vistar Vikas Samiti which represents an unapproved colony, the participation of the members is either 50 percent or more which is really creditable.

It was noticed that maintenance of the parks and plantation is also beyond expectation and the members of the Executive Council of the RWAs have been found to be keen not only in plantation of saplings for beautification and pollution control, but they have invariably expressed interest for aromatic and medicinal plants which they hope will be able to provide, in due course of time, some sort of herbal medicines which will be of use to the residents Ghalib apartment and Vaishali.

**Vaishali Welfare Association** has done creditable work by actively pursuing its aims and objectives through upkeep of plantation established in the parks, roads plantation and proper maintenance. The younger generation, senior citizens and women actively participated in the tree plantations and their maintenance activities. It is worthy of praise.

In the South district, which represents

some of Delhi's most posh colonies, four RWAs were visited. Here the interaction and the participation of the members in the activities of the RWA is invariably above 50 percent. This augurs well for the proper functioning of the welfare associations in the colony and development of fellow-feelings as well as mutual concern.

The park at the **Sarita Vihar RWA** is well maintained both in respect of avenue plantation and from the pollution control point of view. The avenues and the roads also give a picture of being maintained properly but there is a lot which deserve to be done in the form of regular visits of the officials of the departments like DDA, MCD, Horticulture coupled with interaction with the members of the



*A view of plantation in the Sarita Vihar New Delhi*



A view of the avenue and roadside plantation maintained by the Kalkaji, New Delhi Colony RWA

**The plantation of trees has not only resulted in pollution control but also in the beautification in the park and the colony. The people are careful and conscious about the environment and need for under taking plantation site**

executive councils of the RWAs to maintain this for future also.

Similarly, the members of the **Kalkaji Bhagidari Coordination Committee** located at Nehru Enclave maintain their park and plantation to a level beyond expectation and the members of RWAs have been found to be very keen in plantation for beautification. All in all, the members of this RWA have displayed an excellent level of enthusiasm towards their assistance in the execution of various colonies/maintenance of tree plantation.

The Chitrakoot colony has established 3 beautiful parks and an assemblage of copiously populated trees which along with those in the avenues belong to not less than 30 species. Several of these are of medicinal value and some others have been planted keeping in mind their mythological significance and day-to-day utility. On account of the fact that several employees of the MCD residing in this colony, its maintenance is in an excellent state and several senior citizens, women and young boys and girls can be seen visiting the parks. Their assured safety goes to the credit of the Executive Council of the RWA whose members are extremely vigilant in this regard.

Total 145 trees and shrubs species have been planted in the surveyed RWAs such as *Cassia fistula*, *Withania somnifera*, *Terminalia arjuna*, *Nycanthes arbor-tristis*,

*Callistemon viminalis*, *Lagerstroemia indica*, *Carissa carundus* *Polyalthia longifolia*, *B. variegata*, *Cassia fistula*, *Delonix regia*, *Parkinsonia aculeate*, *Albizia lebbeck* *Pithecellobium dulce*, *Azadiaracta indica*, *Roystonea regia*, *Polyalthia longifolia*, *Mimusops elengi*, *Putranjiva roxburghii*, *Holoptelea integrifolia*, *Polyalthia longifolia*, *Mangifera indica*, *Azadirachta indica*, *Ficus religiosa* and *Alstonia scholaris* etc. The performance of the planted species has been found to be satisfactory both in terms of growth and development.

Green plants play a key role in maintaining ecological balance in the biosphere. Apart from their unique property of harvesting solar energy through photosynthesis, they also play pivotal role in shaping our environment, which includes their moderating influence on microclimate, water availability, soil fertility and many other aspects of our environment. The plantation of trees has not only resulted in pollution control but also in the beautification in the park and the colony. The people are careful and conscious about the environment and



A view of *Lagerstroemia indica* at initial stage

need for under taking plantation site. The plantation has been carried out through selection of saplings but also for beautification and pollution control. The members have invariably taken interest in the selection of the rare species of such ornamentals shrubs which remain in the flowering state through-out the year.

In totality, these RWAs are doing laudable work for which they have earned appreciation, both from the resident members and the general public. The criterion for the selection of species would naturally be based more upon the ornamental appearance, easy availability of planting materials, capability to provide shade, flowering period etc. To improve greenery in the surveyed RWAs, plantation of various tree species has been taken up all round the perimeter.

### A Look at the Future

Grand plans are in the making for the future of Delhi, particularly with respect to sustaining the initiatives towards greening Delhi. Delhi Government intends to expand Delhi's forest cover.



View of the A3 Block park at Janakpuri

This will be realized through concerted and Planned Afforestation Programme in new areas like parks/establishment of herbal gardens, road side plantation etc, and densification as well as quality improvement of the existing green cover. One of the thrust areas will be to revive the lost biodiversity. Needless to say this commitment would call for united and sustained efforts from not just the Government but also various civil society groups like Resident Welfare Societies (RWAs).

Since 2005, more than 2.5 million trees have been planted or freely distributed by the Govt. of Delhi and are confident that the tree cover of Delhi has surpassed around 400 sq. km or about 20 percent of the total geographical area of Delhi. Besides this, 9 new city forests were created covering nearly 250 hectares of land, and 14 existing City Forests were intensively planted. Also more than 5 lakh saplings were distributed through 1650 eco-club schools, 1900 RWAs and more than 400 CNG/Petrol Stations/Mother Dairy Booths. As a result, the Department is satisfied that the increase in the green cover of Delhi is on the rise and all efforts are being made to increase the percentage of the forest coverage. In this direction, the Cabinet had taken a major decision to undertake greening of nearly 15,000 gardens and parks in Delhi through the PPP initiative so that these green areas serve as sinks for carbon emissions from several sources in Delhi. The Department will create new city forests, green the waste lands in Aya Nagar, intensify the plantation in existing city forests, densify the ridge, and undertake large scale plantations alongside the several drains of the city.

Participation means, a dynamic group process, where in each and every member of the assembly contributes, shares or is influenced by the exchange of ideas and activities towards problem solving and decision-making. From such a point of view, participation of people involves and amongst other things, looks for the voluntary cooperation, sparing their time, energy and money on specific programmes, and adopts the recommended resource development measures as well as the management practices. For the benefit of the group itself and achievement of sustained basis

of development, the concept of Bhagidari, has thus enunciated an altogether new philosophy of living in the colonies. Through this the people have not only started cooperation with each other for the improvement of the environment of their premises, mutual respect and brotherhood, and also developed the sense of cohesion. This is followed by confidence to deal with the various problems particularly that of security, maintenance of the parks, roads, plantation, and soliciting the services of various agencies like the MCD, DDA, Department of Horticulture, CPWD, PWD, Department of health, sanitation, as well as the Electricity, etc. All in all, this has made a remarkable dent in the life of the people since now they can expect improved services such as the deposition of the House Tax, Electricity and Water Charges, Sanitation and Security, as per their own approach and efficiency. The great upliftment and impetus provided by the Delhi Administration, through the Bhagidari programme, and taking the RWAs into confidence, has played a very important role in this context. The two awards of Rs. 1 Lakh and Rs. 50 Lakh, each year to the RWAs which have been judged the best and runner up has also created a sense of healthy competition and motivation since each tries to achieve something better than the other, e.g. at the WP Pocket Pitampura, the RWAs has bagged the first prize.

It is, therefore, fully borne out that the future of RWAs is bright and they are going to bring about a qualitative change through afforestation in the environment of the colonies, both at the emotional and natural levels.

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*The writers are \*Project Officer, Agricultural Finance Corporation Ltd, Mumbai \*\*Research Associate, ICAR, New Delhi*



# Impact of Women Self-Help Groups in The Economic Development of Andhra Pradesh – A Study

By Prof. Gurajala Sudarshan\*

Woman is half of the sky, half of the earth, half of the blood and half of the soul of the society. No one can deny this fact, because women are indeed a pivot around whom the family, society and the humanity moves. The thrift and the credit of women not only change the socio-economic, political, cultural, philosophical, etc., activities of the people but also determine and direct the production process of agriculture, industry and service sectors of the economy of a country and act as a crucial determinant of economic development

of a family, a nation and the world. The thrift and the credit of women also affect upon the production function, employment, income, consumption, savings, investment, and influence the use of land, labour, capital, organization and technology, and also affect the internal and external trade and balance of payments of a country. Hence, women self-help groups were introduced on the concept of thrift and credit.

## Statement of the Problem

The will, the power and the efforts of women in the economy are not fully

utilized for the programmes of self-help groups (SHG). The schemes of self-help groups had not reached the poorest women in rural areas, especially poor women who were not in a position to save. The self-help group – bank linkage programme was slow and expensive to develop the objectives of SHG. The women are in vicious circle of poverty and they are also in the grip of socio-economic, political, cultural, congestional, demographical, spacial, medical, environmental, and philosophical problems. Scheduled castes, scheduled tribes, weaker sections and



small and marginal farmers had not gained from self-help groups. A large number of the rural poor continued to remain outside the fold of formal banking system owing to their inability to offer small security for getting the loans.

The problem of mass over dues and wilful defaulters' arised due to wrong identification and recommendation of beneficiaries by block and panchayat level officers. The transaction and service cost was very high. Group formation and group cohesiveness were weak. Credit risk was high due to the irregular income of the poor strata. The credit utilization of the members of SHGs are diverted for unproductive purposes which in turn led to dwindling of repayments and mounting of over dues and outstanding of the loans. Some of the self-help groups were charging higher rate of interest than advertised for the rural poor and hence, the rural poor were exploited by self help groups and by the intermediaries.

The self-help group – bank linkage programme had not been of great benefit to commercial banks and RRBs as well as SHG members because of credit risk which arose at all the levels of transaction. The activities of SHGs had not increased the employment, income, man-days of work, empowerment, social status, work independence, basic skills, financial knowledge, saving habits, health care, sanitary conditions, and education,

etc., of women members. The exploitation of ground water for agriculture by large farmers and farmhouse owners with successful borewells followed the intensive and the extensive cultivation and caused damage to the economy of the poor and the weak farmers, and created an artificial drought in the villages and forced the poor and weak farmers to become defaulters in the self-help groups.

Thus, many problems were noticed from the functions of self-help groups because the taste and preference of the members had been changing over the years. This approach in recent times received wide publicity and popularity. It is in this context we study various issues related to the Impact of Women Self-Help Groups in the Economic Development of Andhra Pradesh.

### Objectives

The specific objectives of the study are as follow:

1. To investigate into the organizational structure of Self-Help Groups with a view to examining its strength and weakness in achieving the designed goals.
2. To study the methods and procedures that are employed in the mobilization of savings, borrowings and government assistance.
3. To enquire into the method of credit

deployment and investigate into the causes for outstandings and overdues in the rural areas.

4. To examine the strategies evolved for the recovery of loans.
5. To evaluate the socio-economic status of the members of Self-Help Groups in the pre-membership situation and in the post-membership situation in order to study the impact of Women Self-Help Groups in the economic development of rural areas.
6. To derive the policy implications which may emerge from the study and to suggest policy measures to strengthen the functions of Self-Help Groups.

### Hypotheses of the Study

The following hypotheses are tested in the study:

1. Whether or not the aim of organizational structure of Self-Help Groups have achieved the desired goals.
2. Whether or not the methods and procedures that employed in the mobilization of savings, borrowings and government assistance are the causes for the success of Self-Help Groups in the rural areas.
3. Whether or not the methods of credit deployment and the strategies evolved for the recovery of loans, outstandings and overdues are properly managed for the success of Self-Help Groups.
4. Whether or not the socio-economic conditions of members of Self-Help Groups in the post-membership situation is greater than the socio-economic status of members of Self-Help Groups in the pre-membership situation.
5. Whether or not the women Self-Help Groups reduced the poverty and unemployment of the members by using the concept of thrift and credit.

### Methodology/Research Design of the Study

For the purpose of study, the state of Andhra Pradesh is selected. Andhra Pradesh State consists of three regions, namely Coastal Andhra region, Rayalaseema region and the Telangana region. These three regions are composed





of 9 districts in Coastal Andhra, 4 districts in Rayalaseema and 10 districts in Telangana region and are inhabited by 7.57 crores of population of which male constitutes 3.82 crores and female constitutes 3.75 crores as per the census of 2001. Three regions of the state had not contained the same geographical features. So, different regions are selected. A sample of two districts in Coastal Andhra region, one district in Rayalaseema region and two districts in Telangana region are selected on the basis of proportionate sampling which covers 21.73 percent of the districts of the state. In each selected district one Tahasil/Taluq was selected on the purposive sampling basis.

In each selected Tahasil/Taluq, a sample of two villages which possess SHGs are selected on the purposive sampling basis. In each selected village, the Women Self Help Groups which had formulated and organized by the government and which had bank-linkages activities are selected for the purposes of study. In each selected village, 200 women who are the members of Self-Help Groups are selected on the basis of proportionate sampling which covers a total of sample of 2000 women members. Besides, banks linkage activities – deployment of credit,

recovery of loans, overdues, outstandings of loans, subsidy or revolving fund in the selected villages, are studied during the period from 1992 to 2010. Thus, five districts, five Tahasils/Taluqs, ten villages and 2000 women members and bank-linkage activities in the selected villages are studied.

#### Collection of Data

The study is based on both primary and secondary data. The secondary data are collected from the office records and files of the selected village Grama Panchayats, Tahasil offices and District offices of the respondents. The secondary data are also collected from the works of unpublished Ph.D. theses, M. Phil. Dissertations, research journals, books, census data, etc. The primary data are collected through a structured questionnaire and by holding interviews with various categories of respondents for the development of women members of SHGs. Besides, the primary data are collected through observation method which is related to the objectives of the study.

#### Limitation of the Study

Since the main objective of the present study is to assess the impact of women

self-help groups in the economic development of rural areas, the study does not examine the cost-benefit analysis of the respondents. In the present study, the data are collected from the secondary source, especially from the office records and files of the Tahasil offices and Grampanchayat offices. The secondary data had serious limitations and no uniformity. One of the limitations of the primary data was that all respondents were not maintained the proper information on the impact of factors involved in the study.

#### Findings

The socio-economic, political, cultural, philosophical, etc., activities of the person will determine the development of the person. The active participation of members in SHG is completely determined by socio-political and cultural as well as economic factors. The natural environments within which a community survives and prospers has a profound effect upon the organization and institution. They are evolved by the community to meet their needs. Hence, analysis of socio-economic background of the respondents is imperative.

The younger generation is thriving to

develop the women self help groups and contributing to the development of socio-economic, political, cultural, and philosophical, etc., activities of the people in the country side. It remembers the life cycle theory which says that the taste and preference of the people, employment, income, consumption, savings, investment and production are high in the young age and all these factors decrease in the later stages of age. The scheduled castes, scheduled tribes, widows and divorced women are out of the purview of women self help groups and forward castes and backward castes women are availing the benefits of women self help groups.

The advancement of loan is availed by little educated and illiterate women. The respondents who are doing labour work and the respondents who had agriculture and labour work are joined in women self help groups for financial needs. Family planning is not followed in the rural areas as most of the respondents had the family size of more than four members and they did not listen to the proposal of family planning in the study areas.

The scheduled castes and scheduled tribes possess the irrigated dry land, wet land, unirrigated dry land that had very less value than the value of irrigated dry land, wet land, unirrigated dry land of the forward castes and backward castes. Forty three percent of respondents did not possess annual income from the irrigated dry land while twenty five percent did not contain the annual income from wet land, and ninety percent income of scheduled castes and scheduled tribes is lower than the annual income of forward castes and backward castes. More than seventy four percent of respondents do not possess she-buffalos, cows, sheeps or goats which are essential for the maintenance of rural economy. The income from she-buffalos and sheep and goats are more for all castes particularly of respondents had no annual income from unirrigated dry land. Most of the respondents do not possess pucca houses and are living in semi pucca houses, and some of the respondents are also living in rented houses.

A higher number of respondents borrowed the private loans from friends, relatives, and money lenders besides the loans from co-operative banks, commercial banks and

## **The advancement of loan is availed by little educated and illiterate women. The respondents who are doing labour work and the respondents who had agriculture and labour work are joined in women self help groups for financial needs**

regional rural banks. A lesser amount of private loan is available to scheduled castes and scheduled tribes, while a higher amount of private loan is available for forward castes and backward castes. A large number of the respondents borrowed the loan more than twenty five thousand rupees that denotes that debt burden is increasing trend at the ascending order. Thirty percent of loans are used for the development of agriculture and forty percent are utilized for business and livestock. The investment of scheduled castes and scheduled tribes for the maintenance of business and livestock is insignificant. Sixty percent of respondents had taken the loans above thirty percent rate of interest per annum and it infers that a large number of respondents are paying at higher rate of interest per annum.

A few respondents availed the government programmes such as food for work, family planning, old age pensions, Indira Kranthi Pathakam, dairy programmes ,etc., which shows that government is doing something for the welfare of the people in the rural areas. The employees of the government, particularly the village development officers are informed more about the objectives of women self help groups than the non-governmental organizations, neighbours and micro finance institutions. Backward castes and forward castes had more knowledge and more benefits from government programmes than the knowledge and benefits of scheduled tribes and scheduled castes.

There are many politics in getting the loan and the subsidy to the members.

Sometimes, the weak leader of the group did not convey the need of the members to the bank officials to get the advancement of loan and the subsidy which indicates that lack of leadership will also influence the negative impact in getting the loan and the subsidy. Most of the forward castes and backward castes are aware of women self help groups than those of the scheduled castes and scheduled tribes. The neighbours, sarpanches, N.G.Os, micro-finance institutions, TV and radio did not inform and encourage the government organized women self help groups and a little information is informed by village development officer. Ninety percent of the respondents did not know the objectives of the women self help groups and they did not satisfy the services from mandal development officers, village development officers and sarpanch of the villages.

A large number of respondents expressed that more expenditure is incurring for getting the loan and the subsidy for all the castes, and there are two types of losses to the borrower. That is, they have to pay transport charges and they lose their daily wage on the travelling day, and most of the respondents spent above one thousand for transport expenditure for getting the loan and the subsidy and their for transporting charges, because most of the villages were above 20 km from the headquarters. After deducting the expenditure for transport and daily wage, the amount of loan received becomes lessened and the repayment capacity will reduce.

Savings of scheduled castes and scheduled tribes are low which infers that the participation of scheduled castes and scheduled tribes in SHG is limited and they don't gain from the schemes of the women self-help groups. Eighty seven percent of the members had taken the private loans to save. In SHG particular the scheduled castes and scheduled tribes had taken private loans to save in SHG. Seventy percent of the respondents saved below Rs 1000 per month in SHG.

A large number of respondents expressed that the group leaders are not acting according to the needs of the members and they had no satisfaction to the way of group leader and most of the group leaders did not know the objectives and functions of women of self-helps group.

The group leaders had little education and were involved in politics, inefficient, not discharged the duties of group leader and continued for many years and weakened and lessened the functions of women self help groups. The group leader is not conducting any regular meeting for mobilization of savings, for getting the loan and the subsidy. The members expressed that they have vexed with the functions of group leaders, village development officials and mandal development officials for getting the loan and the subsidy.

The study infers that seventy-one percent of respondents are doing agriculture before joining the women self help groups and they expressed that they are working below twenty five days a month before joining the women self help groups. The number of working days of scheduled castes and scheduled tribes are

low in a month before joining the women self help groups. Eighty-eight percent of respondents expressed that the number of working days after joining the women self help groups increased abnormally for all castes, particularly the number working days of scheduled castes and scheduled tribes are increased significantly.

The study indicates that the impact of women self help groups for the improvement of women belong to the poor is satisfactory and functioning of women self help groups reduced the debt burden in the rural areas. Ninety-four percent of the respondents expressed that they had no experience with the women self help groups in the village and they had no experience with the bank officials in getting the loan and the subsidy. Most of the members of SHG are at the mercy of the group leaders and

the government officials. This reveals that the impact of women self-help groups in the rural area has not changed the socio-economic, political, cultural, philosophical attitude of the respondents.

Eighty-three percent of the respondents wanted that the loan should be enhanced above Rs 30,000 which denotes that less amount of loan is not sufficient to develop their business, to maintain of livestock, to maintain of service, to develop agriculture and to personal needs in regard to the rising prices.

The study reveals that the women self help groups helped the elections and discussed politics in the group meeting for all types of elections and vital decisions of politics are discussed in the meeting to elect a particular leader. Sixty-seven percent of the respondents expressed that rate of interest is not viable to the members of SHG and some members also expressed that the rate of interest is equal to the rate of interest of money lenders which reveals that the scheme of pavalavaddi or low rate of interest scheme of Andhra Pradesh government is insignificant in practice. Sixty percent of respondents said that they did not avail of subsidy and they expressed that it is a cumbersome process to get a subsidy.

The above study concludes that establishment of banks in the villages becomes necessary in order to reduce the transport cost, wage cost, personal cost, etc., for getting the loan and the subsidy, and for the repayment of loan. Village banks also inspire the savings which in turn strengthen the deposits, investment, production, employment, income, consumption of people, and influences the saving habits of members of SHGs in the rural areas. For efficient function of women self help groups, elections will be conducted every three or five years to select a group leader in a democratic way with a minimum qualification. The amount of loan should be increased in response to the rising prices of goods and services.



*\*The writer is Prof. Department of Economics, Kakatiya University, Warangal – 506009. A.P. He can be reached at dr.sgurajala@gmail.com)*

# Profit V/S Problems: A Study of Micro Finance Institutions in India

By Dr Arjun Singh Sirari\* Mr Narendra Singh Bohra\*\*

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The Indian Micro Finance Sector is one of the growing segments of the Indian capital market. These institutions are subject of discussion in every newspaper; sometimes these organizations are criticized as their regress recovery module, their interest rate as well as for the issue of profitability. This research article is an attempt to focus on the profit that microfinance institutions are generating and correlating their profitability with the profitability of banks, and at the same time focusing on the challenges that micro finance companies are facing in the present scenario.

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**T**here is a growing interest in microfinance as one of the avenues to enable low income population to access financial services. India with a population of around 300

million poor people has emerged as a large potential opportunity for the microfinance sector. With only 48 percent of the population accessing financial services, expanding the microfinance

sector is also important from the perspective of financial inclusion (World Bank, 2008). Since 2004, the Reserve Bank of India (RBI) has emphasized financial inclusion as an important goal.



With the growth of the sector both in terms of size, scope and number of participants, there is however now a need for developing a more formal regulatory structure. First, regulation is needed to enable a number of large microfinance institutions (MFIs) to offer savings services, so as to address a major shortcoming of the sector. The largest MFIs in the country, which cumulatively account for 80 percent of the sector in terms of portfolio outstanding, are non-banking finance companies (NBFCs), who are unable to accept savings deposits (Ghate, 2007). In order to do so, NBFCs need to obtain investment grade rating from a credit rating institution, which is difficult for the MFIs. As a result, most of the growth in microfinance in India has been concentrated on provision of loans or “micro credit”.

Microfinance institutions in India are also facing lots of challenges, the Government of Andhra Pradesh imposes a substantial amount of fine for the regress recovery module, in Uttarakhand companies like KGFS is facing recovery problems. Is this a problem of improper regulatory frame or microfinance institutions are doing their business in economic profit orientations model, if this is the reasons then what about the future of microfinance institutions in India. These all are the issues discussed in this research article.

**Objectives of the Article**

1. To explore the profitability of microfinance institutions in India.
2. To highlight the problems faced by microfinance in institutions in India

**Methodology of Research**

This research article is based on secondary data, and the analysis of various article published in various newspapers. The data has been collected through different journal, magazines and research papers.

This research article is divided in two sections, **Section-01** highlighting the profitability of microfinance institutions and comparing that with the profitability of two major banks in India, **Section-02** recognizing and analyzing the problems that microfinance institutions are facing in India.

**Regulatory Framework for Microfinance Institutions in India**

Improper and unavailability of supportive regulatory framework is one of the problems of the microfinance sector in India, Government of India is unable to formulate right direction for the operation till date, this is one of the reasons by which microfinance institutions are depicting fluctuation in growth and facing problems in operation. Following is the existed regulatory framework for microfinance institutions in India.

- **The Reserve Bank of India Act 1934** establishes the central bank (Banking Regulatory Authority of India). It is of interest to the question of the regulation of micro-finance in that under a 1977 Amendment it contains provisions for the establishment and operations of non-banking finance companies (Chapter 3-B, Sections 45-1). The non-banking institutions can be a company, a corporation or a co-operative society. A non-banking financial company (NBFC) is a non-banking institution and takes deposits. NBFCs are registered under this Act (Second Schedule).
- **The Banking Regulation Act 1949** covers “banking companies”. It does not apply to primary agriculture credit societies, co-operative land mortgage banks and any other cooperative society. It is not directly relevant to micro-finance, other than the fact that it covers local area banks and commercial banks, which are involved in linkage operations. The Banking Regulation Act provides the basis for the licensing of local area banks and mutual benefit societies.
- **The companies Act 1956** provides the basis for the incorporation of Local Area Banks, Non-Bank Finance Companies, not-for-profit “Section 25 Companies” and Nidhis under Section 620.

**Microfinance institutions in India are also facing lots of challenges, the Government of Andhra Pradesh imposes a substantial amount of fine for the regress recovery module, in Uttarakhand companies like KGFS is facing recovery problems**



- **Co-operative Societies Act of 1904; Mutually Aided Co-operative Societies Act in 1995 (Andhra Pradesh) Societies Registration Act of 1860 and Indian Trusts Act -1882.**
- Enterprises registered under the Societies registration or Indian Trusts Acts are semi-formal institutions engaged in micro-finance. The Acts do not provide a basis for any of regulation so far. There is a tax problem in that societies and trusts cannot engage in profit making activities, including financial services.
- **Co-operative Societies Act of 1904** covers co-operative, SEWA Bank is registered as a co-operative society, under this act but is regulated by the RBI from which it obtained a banking license.
- With the post liberalization era, market-oriented approach to rural finance advocated a new form of co-operative societies act. Andhra Pradesh enacted the mutually aided Co-operative Societies Act in 1995,

allowing the formation of co-operatives largely immune from Government intervention. Three other States subsequently enacted similar legislation (Bihar, Madhya Pradesh and Jammu & Kashmir). The Multi-State Co-operatives Societies Bill Act 2002 is operative currently and it replaces the MCS Act, 1984.

## SECTION – 01

### Micro Finance as a Profitable Business Segment in India

We all are aware with the IPO success of SKS Micro Finance Company, after that it is a burning topic of discussion, that micro finance is profitable business in India or it's a fund that is provided for the welfare of those people who are unable to access the services of banks because banks product are beyond the reach of their financial capability, if yes then how these micro finance companies are generating such revenue.

Figure of **Table 01** is not sporting the fact that "Micro Finance Companies are non-profitable companies". As per the figure

MFI is having tremendous growth in terms of return on assets and return on equity. SBI which is the largest bank of India, is shown to be having a return on assets 0.95 percent in 2005 and 0.88 percent on 2009 it is very less as compared to the largest micro finance institution, SKS Micro Finance Ltd, for this company ROA on 2005 was 2.82 percent and on 2009 it was 4.94 percent the growth of 100 percent (approximately). It is almost same with case return on equity (ROE), for SBI it was 18.33percent in 2005 and 14.55 percent in 2009, and for SKS it was 27.09 percent in 2005 and 21.56 percent in 2009. It has been observed by the study that the impact of global crisis has also minor impact on the performance of MFI in India

## SECTION – 02

### Problems Faced by Micro Finance Institutions in India

With incremental profitability, there is lot of challenges faced by micro finance institutions in India. Following are some of the problems faced such institutions in India in the recent times.

### Perceived High Risk of Micro Entrepreneurship and Small Businesses:

Micro entrepreneurs usually have no collaterals to offer to microfinance providers against loans, they usually lack an alternate source of income, and have little, if any, formal education or training in the area of their business. As a result, commercial banks attribute a high credit risk to micro entrepreneurs and steer clear of this sector.

### High Costs Involved in Small Transactions/Micro Lending:

The small size of micro enterprises increases the transaction cost for MFIs because they cannot process loans in bulk (unless good management information systems are in place). This denies MFIs the benefit of economies of scale; hence, they are forced to cover their costs through high interest rates on loans.

### Lack of Debt and Equity Funds for MFIs to Pass on to the Poor:

Capital availability for microfinance is hardly a problem owing to the rapid growth in the microfinance sector, which has been fuelled by attention from the media and development agencies. Even though

Table 01: ROA & ROE of MFI in India

AML Microfinance	2005	2006	2007	2008	2009
Return on assets	2.95%	1.67%	1.43%	5.33%	4.31%
Return on equity	51.44%	32.13%	17.85%	55.52%	40.07%
Bandhan Microfinance	2005	2006	2007	2008	2009
Return on assets	1.01%	9.02%	4.96%	8.50%	3.56%
Return on equity	31.43%	130.82%	61.25%	125.28%	39.13%
Mimo Microfinance	2005	2006	2007	2008	2009
Return on assets	NA	NA	-12.83%	0.29%	1.37%
Return on Equity	NA	NA	-39.23%	1.62%	8.19%
SKS Microfinance	2005	2006	2007	2008	2009
Return on assets	2.82%	0.78%	1.96%	3.60%	4.94%
Return on equity	27.09%	4.11%	11.71%	18.01%	21.56%
Spandana Microfinance	2005	2006	2007	2008	2009
Return on assets	4.72%	0.74%	4.23%	6.74%	9.01%
Return on equity	80.20%	21.77%	53.02%	49.18%	55.95%
STATE BANK OF INDIA	2005	2006	2007	2008	2009
Return on assets	0.95%	0.85%	0.88%	1.00%	0.88%
Return on equity	18.33%	16.00%	16.78%	16.78%	14.55%
HDFC Bank	2005	2006	2007	2008	2009
Return on assets	1.42%	1.41%	1.40%	1.42%	1.42%
Return on equity	16.16%	19.48%	19.70%	16.46%	17.77%

Source: Website of respective institutions (calculated)



there are plenty of financing options available for MFIs, there is an emerging shortage of money because of the current financial crisis across the globe. Another reason for this shortfall is the lack of awareness of funding sources by MFI managers.

**Difficulty in Measuring the Social Performance of MFIs:** Microfinance is delivering the economic returns its proponents promised, but there are only a handful of tools available that measure the social return of loan programs for the poor. To add to the problem, the tools use proxies to estimate the amount of poverty and social change surrounding micro entrepreneurs. This makes the gathering of funds a challenge because donors may question the actual impact made by microfinance.

**Mixing Charity with Business:** Since credit without strict discipline is nothing but charity (Professor Yunus), if microfinance providers fail to protect themselves against loan delinquency, they will, in effect, prioritize social objectives at the expense of financial sustainability. Improper delinquency management is a result of inadequate implementation of corporate governance principles, and formal as well as semi-formal microfinance providers often suffer from this. As a result, looser controls over microfinance deals will lead to higher default rates. Read more about the difficulty in mixing charity with business.

**Lack of Customized Solutions for the Poor:** Inappropriate targeting of poor households by microfinance programs is a common problem because MFIs fail to understand the varied needs of micro entrepreneurs. MFIs must spend time in the field with their clients and his/her business, and then use this research to develop customized microfinance tools for each micro entrepreneur.

**Lack of Microfinance Training for Human Resource in Microfinance Institutions:** Working in the microfinance sector is a different ball game compared to the traditional financial sector. For instance, microfinance officers and volunteers need to talk a different language, build lasting relationships with individual micro entrepreneurs, understand the unique



needs of the poor, evaluate the borrower's sustainability, and grasp the cultural nuances of the borrower's communities. Of course, all this needs to be done by large financial firms as well, but the needs and characteristics of the two markets are very different. It's no surprise microfinance providers need special training to ensure they avoid problems such as intimidating or underserving clients.

**Poor Distribution System of Microfinance Institutions and Lack of Information About Microfinance Investment Opportunities:** Firstly, microfinance providers may be complacent with their client base in certain cities and feel no economic need (ignoring the social need to eradicate poverty) to spread out their distribution system to cater to the poorest of households. Secondly, micro entrepreneurs are sprawled over large geographical areas, often in remote places, which often makes them inaccessible to MFIs. This is a slight problem because even though there are over 10,000 MFIs around the world, they may not know about the existence and needs of certain micro entrepreneurs.

**Dual mission of Microfinance Institutions to be financially Sustainable as well as Development**

**Oriented:** Microfinance providers tend to forget their main objective is social development and not profit creation. The principle of 'one micro entrepreneur – one micro loan' is overlooked by profit-hungry MFIs who end up targeting the same individual for many loans and cause multiple borrowing (also known as credit pollution). This is a major problem because at the end of the day, that individual gets burdened by mounting interest payments and is pushed deeper into the folds of poverty. Poor governance on the side of MFIs as well as the micro entrepreneur is to blame for this.

**Conclusion**

Profit is the focus of any business but here is a discussion that "Are our business houses fulfilling the objectives of establishment" and other side problems are always in the way of success and successful adjustments of problems create a wealthy business. We can therefore see that these problems should not be impossible to solve. In other words, despite these problems, the prospects of microfinance are quite bright.

*The writers are \*Principal, Government College Satpuli Pauri \*\* Asistant Professor GEU Dehradun, Uttarakhand*

# The Transformation of The Microfinance Sector in India: Experiences, Options and Future

By M.S. Sriram\* Rajesh S. Upadhyayula\*\*

This article discusses the growth and transformation of microfinance organizations (MFO) in India. Issues that have triggered transformation include size, diversity, sustainability, focus, and taxation. Transformation experiences in India are few. To move to the mainstream, non-governmental organizations (NGOs) choose from three popular forms of organizations: non-banking finance companies (NBFCs); banks; and, cooperatives. It appears that there is no ideal path for spin-off. Regulatory changes are needed to allow MFOs to graduate to other legal forms as they grow organically. NGOs must be permitted to invest in the equity of MFOs, as is the case in Bolivia and Africa. Norms for setting up MFOs under current

legal forms should not be eased. Regulations should ensure that they help genuine MFOs and not others masquerading as MFOs.

Microfinance in India started in the early 1980s with small efforts at forming informal self-help groups (SHG) to provide access to much-needed savings and credit services. From this small beginning, the microfinance sector has grown significantly in the past decades. National bodies like the Small Industries Development Bank of India (SIDBI) and the National Bank for Agriculture and Rural Development (NABARD) are devoting significant time and financial resources to microfinance. This points to the growing importance of the sector. The strength of the microfinance organizations (MFOs) in

India is in the diversity of approaches and forms that have evolved over time. In addition to the home-grown models of SHGs and mutually aided cooperative societies (MACS), the country has learned from other microfinance experiments across the world, particularly those in Bangladesh, Indonesia, Thailand, and Bolivia, in terms of delivery of microfinancial services. Indian organizations could also learn from the transformation experiences of these microfinance initiatives. This paper examines transformation in the Indian context.

## Understanding Microfinance

Robinson (2001) defines microfinance as "small-scale financial services—primarily



credit and savings—provided to people who farm, fish or herd” and adds that it “refers to all types of financial services provided to low-income households and enterprises.”

In India, microfinance is generally understood but not clearly defined. For instance, if an SHG gives a loan for an economic activity, it is seen as microfinance. But if a commercial bank gives a similar loan, it is unlikely that it would be treated as microfinance.

In the Indian context there are some value attributes of microfinance:

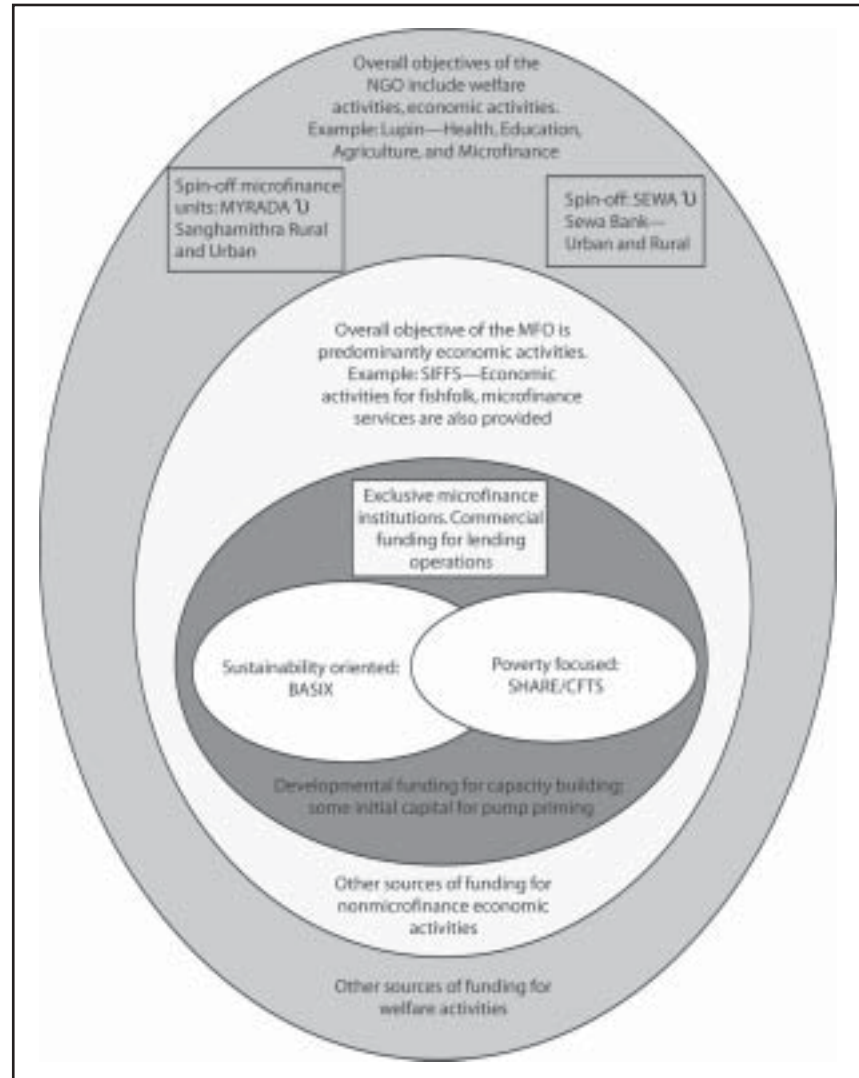
1. Microfinance is an activity undertaken by the alternate sector (NGOs). Therefore, a loan given by a market intermediary to a small borrower is not seen as microfinance. However when an NGO gives a similar loan it is treated as microfinance. It is assumed that microfinance is given with a laudable intention and has institutional and nonexploitative connotations. Therefore, we define microfinance not by form but by the intent of the lender.
2. Second, microfinance is something done predominantly with the poor. Banks usually do not qualify to be MFOs because they do not predominantly cater to the poor. However, there is ambivalence about the regional rural banks (RRBs) and the new local area banks (LABs).
3. Third, microfinance grows out of developmental roots. This can be termed the “alternative commercial sector.” MFOs classified under this head are promoted by the alternative sector and target the poor. However these MFOs need not necessarily be developmental in incorporation. There are MFOs that are offshoots of NGOs and are run commercially. There are commercial MFOs promoted by people who have developmental credentials. We do not find commercial organizations having microfinance business.”
4. Last, the Reserve Bank of India (RBI) has defined microfinance by specifying criteria for exempting MFOs from its registration guidelines. This definition is limited to not-for-profit companies and only two MFOs in India qualify to be classified as microfinance companies.

### Microfinance in India

In India, microfinance is done by organizations having diverse orientations, as shown in Figure 1.

Societies (SIFFS) started as a support organization for fishermen, providing technical and marketing support. It then arranged for loans to its members

Figure 1. Defining the microfinance egg



NGOs in India perform a range of developmental activities; microfinance usually is a sub-component. Some of these NGOs organize groups and link them to an existing provider of financial services. In some cases NGOs have a “revolving fund” that is used for lending. But in either of these cases, microfinance is not a core activity for these NGOs. An example is the Aga Khan Rural Support Programme India (AKRSP-I). For AKRSP-I, the microfinance component is incidental to its work in natural resource management. Examples like MYRADA and the Self-Employed Women’s

Association (SEWA) fall in the same category. However, as their microfinance portfolios grew, both organizations decided to form separate entities for microfinance. MYRADA set up an MFO called Sanghamitra Rural Financial Services (SRFS), while SEWA set up the SEWA Cooperative Bank.

At the next level, we find NGOs helping the poor in economic activities. Their purpose is developmental. They see microfinance as an activity that feeds into economic activities. For instance, the South Indian Federation of Fishermen’s

through banks. When the arrangement was not effective, it started providing loans itself.

At the third level, we have organizations with microfinance at the core. They have developmental roots, but are diverse in their operational details, orientation, and form of incorporation. This paper focuses on organizations that have microfinance at the core. It also examines NGOs that have created new MFOs to deal with the specialized function of microfinance. It deals with issues of transformation of these organizations, moving from a developmental root to a commercial sprout.

### Issues that Trigger Transformation

We examine five significant issues that trigger the transformation of NGOs into MFOs.

**Size:** The most significant issue that triggers a transformation is growth. This affects the promoters as well as the providers of microfinance.

With organizations like MYRADA and SIFFS that promoted credit groups, banks were unwilling to provide loans at the pace at which microfinance customers needed them. It was not easy for MYRADA or SIFFS to deal with the attitudes of people manning these organizations. In several instances it was an enthusiastic bank manager who made the difference; but this was not institutionalized. In such situations, NGOs tend to get into action by opening a microfinance division or by setting up a separate MFO. The origins of several Indian MFOs are rooted in the failure of banks to meet the needs of the poor.

**Diversity:** Another trigger for transformation is the diversity of financial services that an MFO wants to offer. In most cases, NGOs start with credit but soon realize the need to provide other support services. While MFOs have reduced their own lending risks through group guarantees and addressed the issue of willful default, they have not been able to grapple with the situation where the underlying economic activity fails and the borrower faces a genuine problem. This can be tackled with a combination of savings and risk mitigation products. But, MFOs realize that the NGO format is not suited to carry

out these activities, owing to stringent regulations. They necessarily have to look at transformation options.

**Sustainability:** Sustainability is closely linked to growth. Beyond a certain level, MFOs have to seek external funds for keeping the credit activity going. When MFOs seek funds from financial institutions, issues like ownership structure and capital adequacy become critical. For an MFO to survive in the long run, it has to transform itself into an institution with transparent systems and accountability. In most cases the promoters of MFOs do not have sufficient capital to invest and therefore the main constraint is that they are dealing with "other people's money." NGOs have no clear-cut ownership structure, and making people liable under this format is a problem. If they wish to be sustainable, the only option is to deal with mainstream institutions (Rhyne, 2001).

**Focus:** NGOs need to maintain focus on their original mandate. Undertaking microfinance is transaction intensive and requires distinct orientation and skills. For NGOs, there is always a conflict between microfinance, which earns returns and is therefore "commercial," and other activities that are "developmental." This

is one reason for NGOs to spin off their microfinance activities. The entity that emerges to carry out microfinance should be understood by the mainstream and therefore it should have an appropriate institutional form.

**Taxation:** When an NGO carries out commercial activities (microfinance) on a large scale, it could lose its "tax free" status, and this might jeopardize other activities. Even grants may become taxable. This is a major concern for NGO-MFOs. This also triggers a search for an alternative where microfinance could be kept isolated.

### Transformation of Institutions

The transformation process in India is still at a nascent stage. Microfinance has not grown to the size that warrants a full-scale study on the transformation processes. There are a large number of small initiatives being carried out at various places. The estimated number of microfinance institutions that have requested finances from SIDBI; have contracted rating agencies like M-Cril, Planet Finance, and CRISIL for rating; or are MACS promoted by the Co-operative Development Foundation (CDF) are indicated in *Table 1*.

**Table 1: Estimated number of MFI under different organizational forms**

Legal Status	Estimated Number	Important Institutions
Not-for-Profit Company	2	IASC, Sanghamithra
For-Profit Company (NBFC)	6	Samruddhi, SHARE Microfin, CFTS, Sarvodaya Nano Finance, Kosh, Asmitha
Local Area Banks	1	KBS Lab, Andhra Pradesh
Cooperatives:		
Coop Society	6	AMCCS, JMSSM, Bhuttico, VYCCU, ICNW, Pushtikar, Samiti
Cooperative bank	1	SEWA Bank
Mutually Aided Cooperative Society	250	SWDMACTS, Sneha MACS, PWDMACTS, APDSFLMACS, Share India MACS and others including mens' and womens' thrift co-ops promoted by CDF—All in Andhra Pradesh
Public Society/Trust <sup>a</sup>	400	Assist, SKS, RASS, ASA, FWWB, GDS, Outreach, RGVN, SIFFS, WWF, VWS, YCO.
Estimated Number	666	

*Note.* From SFMC Database, M-Cril Database, C-Gap Rating Fund Database, and CDF Annual Report. a. From Sinha, S. (2001). (This is one of the estimates.)

The figures are only indicative. The number of public societies and trusts is likely to be an underestimate, whereas the figures for other forms are more realistic. We discuss the transformation options under each regulatory category.

### Option 1: In Good Company

If we treat setting up “for-profit companies” to mean transformation, not much has happened in the field. We examine a few examples of transformation from the limited experiences that the Indian microfinance sector has had. Let us look at instances of MFOs that have registered as NBFCs. Here, there are two approaches: one taken by Share and Cashpor Financial and Technical Services (CFTS), and the other by BASIX.

Share and CFTS are similar in orientation and focus. Both are inspired by Grameen and focus on reaching the poorest. Share operated as a public society for a long time before setting up a NBFC. CFTS started as an NBFC and is still trying to grapple with the norms applicable to NBFCs. When Share set up an NBFC, it transferred a portion of grants received from C-Gap to poor customers and encouraged them to reinvest those grants

as equity in the new NBFC. This ensured adequate capital for Share to start an NBFC. This was similar to the Bolivian approach.

However, an important difference is that it was possible for the Bolivian NGO to invest in an FFP (a similar arrangement was with K-Rep, Kenya). In the case of Share, it had to transfer all the clients to a new legal entity, slowly and gradually winding down the operations in the NGO and transferring the clients to the NBFC branch by branch (Sriram, 2001). This posed some problems for Share. First, being governed by the prudential norms, an NBFC is prohibited from accepting savings till it gets an investment grade rating. Even if Share gets the rating, its flexibility of offering savings services to clients will be very restricted. Share found an innovative solution where it also promoted a cooperative (Share India MACS) to collect savings. This cooperative in turn would lend to the NBFC. But this has limitations, as both entities are incorporated under different laws and have different governance structures.

In the case of CFTS, the incorporation itself was a process of transformation.

**Share and CFTS are similar in orientation and focus. Both are inspired by Grameen and focus on reaching the poorest. Share operated as a public society for a long time before setting up a NBFC**



Cashpor is an NGO operating in multiple countries. When CFTS set up its operations in India, it was registered as a company. However, unlike Share it did not have prior operations in India as an NGO. It was, therefore, difficult to raise the start-up capital. Local laws make it difficult for small international investments to come in the form of equity in the financial sector. For a long time, CFTS did not have adequate domestic capital to be registered as an NBFC. CFTS had to go through the process of raising capital, by finding donor money that could go to the clients and then be re-invested in the company to reach a size that gained economies of scale and recognition. The Activists for Social Alternatives is another organization that follows the Grameen model and is trying to transform itself as a company. It is attempting an innovative route of forming private mutual benefit trusts of clients. The trusts would seek donor grants and in turn hold equity in the NBFC. However, the scheme has yet to take a concrete shape.

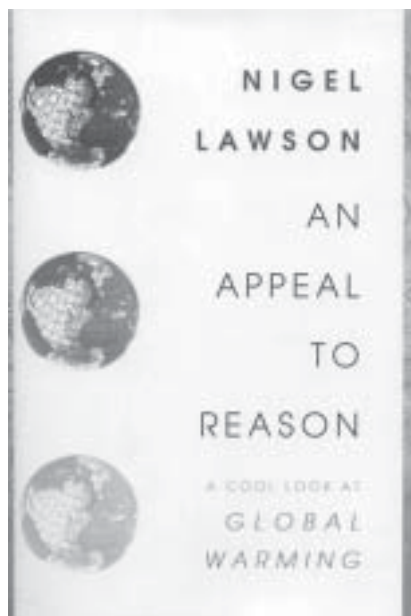
The path followed by BASIX was different. BASIX had a design that looked at mainstreaming microfinance right from inception. The structuring of BASIX was complicated. BASIX sought a mix of developmental and commercial funding for its operations and had a separate vehicle through which the operating entity was adequately capitalized. This involved setting up a holding company that had large external borrowings from donor organizations. The holding company was heavily leveraged. As the formality of getting clearances for setting up an NBFC was going on, BASIX carried on its operations for a year through an existing NGO-Indian Grameen Services. BASIX represents a mix of developmental capital flowing in on the promise of sustainability and commercial capital flowing in from the developmental windows of large financial institutions.

*The writers are \* faculty member at the Centre for Management in Agriculture at the Indian Institute of Management, Ahmedabad (IIMA). Email: mssriram@iimahd.ernet.in, \*\* doctoral student in the Economics Area at the Indian Institute of Management, Ahmedabad).*

# Off The Shelf

## *Who says there's global warming?*

By Amit Bhattacharya



<b>Book</b>	: An Appeal To Reason: A Cool Look At Global Warming
<b>Authors</b>	: Nigel Lawson
<b>Publishers</b>	: Harper Litmus
<b>Pages</b>	: 166
<b>Price</b>	: Rs 299

In the 1980s, Nigel Lawson was a key member of Margaret Thatcher's government. He rose to become chancellor of the exchequer in 1983 and served in that capacity during the heyday of British neo-conservatism before quitting in 1989. Of late, Lord Lawson has taken on a new job – debunking what he calls the “secular religion” of our age, climate change.

In this mildly-titled 2008 book, recently launched in India with a new foreword and an update at the end, Lawson flays the ‘church of climate change’ – my words, not his. He uses every weapon he can.

So Lawson begins by trying to show how the science of manmade global warming – climate change is a ‘loaded’ term he refuses to use – is far from ‘settled’ and that no ‘significant’ warming has taken place yet as a result of the steady build-up of carbon dioxide in the atmosphere. He concedes that temperatures may rise in the future, but quickly adds that its harmful effects have been overstated by the establishment. Indeed, Lawson talks about the benefits a spot of warming would bring, especially to the cold countries of Europe and elsewhere. Finally, the journalist-turned-politician – who incidentally found conditions in his well-equipped southern France home ‘perfectly tolerable’ during Europe’s killer heat of 2003 – reasons that even if we assume the world is getting hotter due to the human use of fossil fuels, drastically cutting down carbon emissions isn’t an option because that would be both “economically damaging and politically unattainable”.

In a nutshell, Lawson argues that it makes perfect economic sense for the world to continue to use fossil fuels as these are the cheapest available forms of energy. It will cost less, he says, to adapt to global

warming than to spend billions on cutting carbon emissions.

Lawson accuses the climate establishment of coating a grain of truth with a load of rubbish, but he too could be accused of slant and cherry-picking facts. For instance, he contends that no warming has taken place since 1998. Just days ago – Wednesday, January 19 to be exact – the World Meteorological Organization settled that debate, saying 2010 was the warmest year on record. Before the 2010 record, it could however be argued using certain data-sets that 1998 was the warmest year. Even so, climate scientists look at trends rather than single year records. And the trend is clear – from 2001 to 2010, global temperatures averaged 0.43 degrees C above the 1961-90 average. This was by far the warmest decade on record.

Lawson cites just one study when he contends that the net ice mass of Greenland is, in fact, increasing. Every recent study, including satellite data from GRACE, the Gravity Recovery and Climate Experiment mission, and Nasa’s ICESat or the Ice, Cloud and land Elevation Satellite point to significant loss of ice in the 2000s. In fact, most of Lawson’s conclusions can be similarly challenged.

But the one point that Lawson rightly makes is on alarmism. Climate study is an extremely complex science, but activists often tend to oversimplify and arrive at inaccurate conclusions. In the long term, this can only damage the credibility of the whole climate-change issue. Purely as a challenge to the mainstream view, Lawson’s book should be welcomed – even though he doesn’t have enough gunpowder to mount a serious onslaught.

*The Review as Published in Times of India*

# Here's How To Get The X Factor

Shobha John

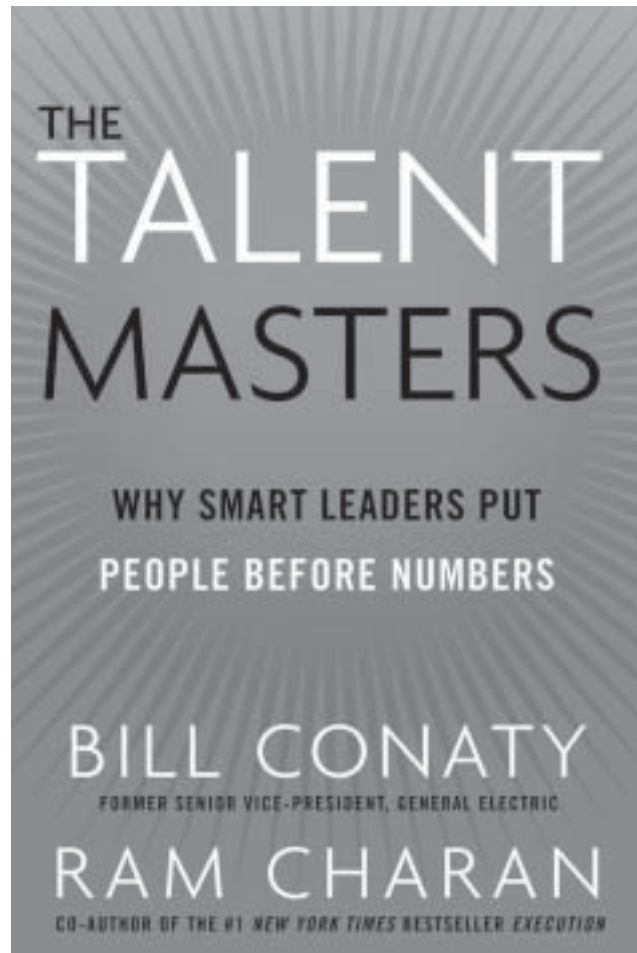
The first line grabs attention: "If businesses managed their money as carelessly as they manage their people, most would be bankrupt." And yet, to most companies, it is profits, not people that matter. Few companies know how to nurture and retain talent. Surprised? Perhaps, but it may be appropriate to pay attention as this comes from Bill Conaty, General Electric's senior HR vice-president and Ram Charan, an adviser to multinational companies. Conaty has worked alongside legendary CEOs such as Jack Welch and Jeff. Often seen as the modern face of HR, Welch said of Conaty: "The guy is spectacular. He has enormous trust at every level. The union guys respect him as much as the senior managers."

Written in an easy, conversational style, "The Talent Masters" offers apt examples to illustrate the points it makes. Apple's founder, the legendary Steve Jobs, for instance. A fine, if tough act to follow. The runaway success of Apple's iPod suggested it was the bestselling MP3 player ever. How did that happen? Simple. Jobs spent four hours a week, 50 weeks a year, for 12 years, brainstorming with software, hardware and design experts to come up with the most brilliant ideas.

There is sound advice for companies serious about nurturing talent. An all-employee global database can help zero in on the right person for the right job. Identifying tomorrow's leaders is important too. For that, an enlightened CEO is a must. Next, have work values. At Hindustan Lever, for example, it is character that matters, wherein an individual puts his company's needs before his own. Also, build trust. But that is easier said than done. And that's where strong human resource management matters.

Examples of well-known brands such as GE, P&G, Novartis and Hindustan Unilever underline the fact that money is just a commodity; it is talent that gives a company the edge. At GE, when someone from the top management quits, the company doesn't go to pieces. There is no leadership vacuum – even for a day – because the company already has someone trained, ready to take over. And when newcomer Omar Ishrak took over GE's ultrasound business, he received all the help he needed. That helped. From a \$130m business, which was losing money, it grew to \$300m within three years of Ishrak taking over.

The book crucially also advises companies against ignoring the juniors. At Hindustan Lever, it's not uncommon for the CEO to visit young sales managers out in the field. Similarly, the CEO of P&G spends about 40% of his time with his people. Finally, make leadership changes, if needed. Goodyear's old



<b>Book</b>	: The Talent Masters
<b>Authors</b>	: Bill Conaty and Ram Charan
<b>Publishers</b>	: Random House
<b>Pages</b>	: 320
<b>Price</b>	: Rs 699

hierarchical structure prevented people from speaking out. But this, say the authors, "is tantamount to suicide." The company made the required changes and they helped greatly.

*The Review as Published in Times of India*



# AGRI NEWS

## Agri Secy Predicts More Rains This Monsoon

According to a report submitted by the Office of the Agriculture Minister, despite the delay in advance of the monsoon, India is expected to get more rains this season than was predicted earlier by the weather office. In an update to the monsoon forecast of the India Meteorological Department (IMD), rains in the June-September period will be 102 per cent of the long-period average.

"It will be 102 per cent," Agriculture Secretary P K Basu told reporters when asked about the quantum of rainfall the country would receive this season. In April, IMD had said the country would

receive only 98 percent of the long period average (LPA). LPA, at 89 cm, is the mean rainfall received by the country over a period of 50 years.

India had received 11 per cent less rain than normal in the June 1-23 period, even as the southwest monsoon, which had been virtually stationary in the past week, showed signs of advancing northwards.

The weather office said the country received 97.4 mm rainfall for the June 1-23 period, against the normal levels of 109.6 mm. However, weather scientists

have said there is no need for alarm, as there is still hope for improvement in rainfall across the country.

The southwest monsoon, which is nearly 10 days behind its normal schedule over North India, is expected to strengthen with the formation of a low-pressure area in the Bay of Bengal. Since their onset on May 31, monsoon rains have made a staggered progress and stopped in their tracks due to cyclone 'Phet', delaying their advance by at least 10 days to the breadbasket northern region, as well as the central and northwestern parts of the country, which mainly grow oilseeds.

## Rs 79 cr Allocated By Centre For Spices Production'

The Central government has so far allocated nearly Rs 79.14 crore for spices production in the country, stated Mr KV Thomas, minister of state for agriculture, consumer affairs, foods and public distribution.

Mr Thomas, said, "Under two important centrally sponsored schemes, namely National Horticulture Mission(NHM) and Horticulture Mission for North East and

Himalayan states, the agriculture ministry aims to boost spices quality and productivity."

The official data claims that the agriculture ministry has spent nearly RS 93.78 crore in 2007-8, Rs 11.79 crore in 2008-09 and Rs 88.51 crore in 2009-10. Moreover, the ministry has also taken up a holistic approach for the development of horticulture crops.

## India is All Set To Register Record Rice Harvest

India is expected to witness record rice output. Production may go to 100 million tonnes in the year ending June 2011 compared to 89.3 million tonnes a year ago, stated Mr Vijay Sethia, president of All India Rice Exporters' Association.

A report by the agriculture minister said that the rice output was at 99.2 million tonnes in the year ended June 30,2009. The Indian farmers had planted 27.1 million hectares of rice as of August 13, as compared with 25.1 million hectares a year ago.

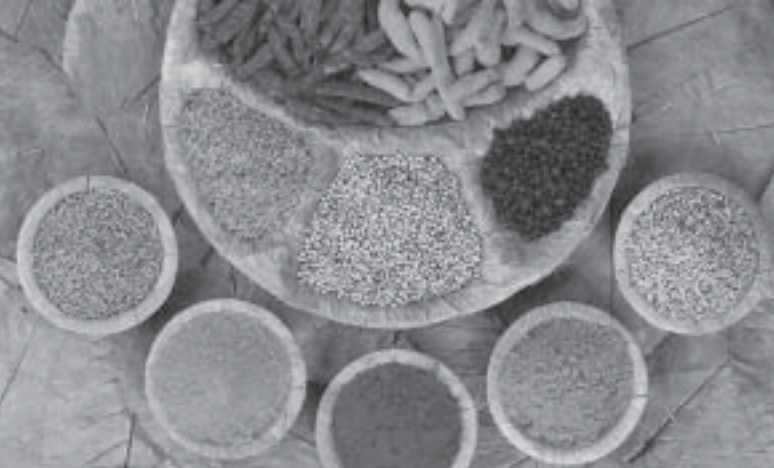
## India is 5th in Global Citrus Fruit Annual Output

According to the latest statistics, India is ranked fifth in the global citrus fruit annual output, stated a research report by TD the market publishers. Citrus fruits occupy 10% of the total area under all fruit crops in India. It also has the third position after mango and banana in the fruit production in India.

According to the research firm, "However, the Indian citrus processing industry has a huge potential for development. North-East India is the native place of many citrus species. It is of particular interest because of its high content of vitamin C and refreshing juice."

Out of the different types of citrus fruits which are grown in India, orange, sweet orange and lime are of commercial importance.





# AGRI NEWS

## Export Ban Lift on Onion Not Soon

The Government of India is in no mood to uplift the ban on the export of onions. The government has also stopped the sales of subsidised onions in the national capital region with the prices of onion getting lower.

"Though the price of the onion has eased...but we have not reached the

stage to restart export of the vegetable... we are not in any hurry. Only previous contracted onions are imported now...there is no need for further shipment of the vegetable as the domestic supply of the crop has increased now," said, K V Thomas, Food Minister.

The ban on the export of onion is

imposed by the government since January as the prices of onion were spiralling out of control. During the crisis period when the cost of onion was hovering at Rs 70-85 per kg in the national capital, the government had allowed for the import of the vegetable from the neighbouring countries.

## Impact of Customized Farmers Training and Extension and online Agriculture monitoring through application of ICT at Block Level

The Customized Farmers Training is one of the innovative interventions under Rashtriya Krishi Vikas Yojna (RKVY). Agricultural Finance Corporation Limited has been awarded the task of implementation of above project in 820 Blocks of U.P.

The mission of the project is to increase farm productivity, profitability and sustainability of farm system and efficient use of natural resources and agriculture inputs.

To achieve the mission following tasks are being conducted:-

1. Providing customized farmers training as per need of farmers at village cluster level;
2. Providing online information on weather parameters, demand and use of agricultural inputs and market intelligence;
3. Quick alert system for benefit of stakeholders and for management of crop production support system, yield assessment, shortfall in production etc.

The farmers of the State are being

benefited at large with the scope of the tasks of this project.

During one of the monitoring visits of customized farmers training in Nand Khas village of Chirgaon Block of Jhansi District, Shri Laxmi Narayan one of the farmers has narrated the problem of white powder type fungus attack on the crop of the matar (pea) in his village. This caused a 30-40% loss in production to the farmers of the village.

Shri Laxmi Narayan has also around 6 ha. of land under matar cultivation and his crop is also under same fungus attack. To experience the problem personally the undersigned, Block and District Incharge of the project visited the field of Shri Laxmi Narayan and it was found that crop has come up very fine and a good number of matar pod is also visible in the crop but almost 10 to 15% crops were also under same fungus attack.

As per provisions of the project, a quick advice was sought over telephone constituted from the expert panel under the project. After listening to the problem thoroughly, expert panel has suggested to mix 6 ml. of Kaliksan or Kerathen

medicine in 10 litres of water and spray the solution in the field of matar so that further fungus attack can be stopped.

Shri Laxmi Narayan was very much amazed to get the solution of his problem so quickly and he applied the medicine as suggested by the expert and saved his crop from further fungus attack. He has also suggested the use of medicine to his fellow farmers, who were also suffering from the same fungus attack.

Later on, in the larger interest of the matar growing farmers under quick alert system of the project, a SMS was flashed to the mobile phones of farmers recommending this treatment and ways of its use to stop the fungus attack on the matar crop, which has been very much appreciated by the farmers of the area.

At last, due to timely steps taken to stop further spread of fungus attack, farmers are getting good production/price of their produce.

D S Vaidya  
Cluster Coordinator, CFT & ICT Project,  
AFCL, BDLO, Jhansi



# Agricultural Finance Corporation Ltd.

The Editor  
Financing Agriculture  
Agricultural Finance Corporation Ltd.  
Dhanraj Mahal, 1<sup>st</sup> floor  
Chhatrapati Shivaji Maharaj Marg  
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- Gender Development
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- CDM Services

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- Consultancy for World Bank Assisted Process Monitoring of Andhra Pradesh Rural Poverty Reduction Project – Phase-II (Zone-II) – Society for the Elimination of Rural Poverty, Government of Andhra Pradesh – 2007-08
- Implementation of DFID funded Western Orissa Rural Livelihood Project (WORLP) – Watershed Development Mission, Govt. Of Orissa – 2005-2010
- Comprehensive Watershed Development Project in Karnataka - Watershed Development Department (WDD)- Government of Karnataka – 2006-07
- Madhya Pradesh Tribal Development Project - The International Fund for Agriculture Development (IFAD), Rome – 1997

### Grass Roots level Livelihood Implementation

AFC has undertaken large scale Agricultural Extension Programme in 820 Blocks covering all 71 districts of Uttar Pradesh.

The mission of the implementation project is to increase the farm productivity, profitability and sustainability of farming systems, efficient use of natural resources and agricultural inputs etc., by customised farmers' trainings at village cluster level and to provide online information on weather parameters, demand and use of agricultural inputs and market intelligence.

### Organic Farming

This project involves the adoption and certification of Organic Farming in 22000 hectares.

### Watershed Development

AFC is implementing Livelihood Development Programme based on Watershed Development with funding by DFID, and NABARD.

### Panchayati Raj Institutions

AFC has set up an independent division for providing support services in terms of grass roots level planning, training of various stakeholders in UP, Bihar and Jharkhand. AFC has prepared Perspective District Plans in 25 districts of Uttar Pradesh under Backward Region Grant Fund (BRGF). AFC has also conducted TNA and prepared Training Manual for PRIs in Jharkhand.

The PRI division will also provide the following services:

- Organise training programmes for the senior & middle level executives of the NGOs.
- Capacity building of the ERs and various stakeholders.
- Conduct research studies, develop learning material for each level on local self governance, organise seminars and workshops, promote exchange of academic expertise on various aspects related to local planning & DPCs, disseminate specialised information and provide expert advice to all concerned.
- Take up advocacy role to strengthen democratic process, particularly grassroots level democracy through decentralised institutions.
- Lay special emphasis on involving the poor, marginalised and weaker sections of the society in the democratic governance.



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