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Kurukshetra seeks to carry the message of Rural Development to all people. It serves as a forum for free, frank and serious discussion on the problems of Rural Development with special focus on Rural Uplift.

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Inside

s we celebrate 60 years of our Republic, let us travel back in history and see how issues of rural development have evolved over the years, and how some issues continue to be relevant even today.

Efforts to bring greater power to the Gram Panchayats were led by Dr. S K Dey, India's first Community Development Minister, who also started our magazine, Kurukshetra This was the year in which the Government of India launched the first community development project. The Balvantrai Mehta Committee recommended the formation of a three-tier, Panchayati Raj system of rural local self-government, with the Gram Panchayat, Panchayat Samiti and Zilla Parishad as its componenets at the village, block and district levels respectively. The aim was to decentralize the process of decision making. The 73rd amendment of the Constitution has carried the process of devolution further, and today we see many panchayats in the country participating actively and very constructively in the development process. While it is true that the effects of empowerment have not reached every corner of the country uniformly, and many regions are still to stand firmly on their feet, there is no doubt about the fact that participatory development has established itself firmly in the Indian context.

Looking at the different components of the rural economy, agriculture remains the mainstay of the rural sector. The compound growth rate in agricultural production has been 2.7 per cent per annum since independence. Since the first green revolution in the 1960's the food grain production has increased significantly from 82 million tonnes in 1960-61 to 129 million tonnes in 1980-81 and 233 million tonnes in 2008-09. the share of agriculture in the country's GDP has declined from 48.7 in 1950 to 24.4 per cent in 1996-97 and further down 18.7 per cent in 2007. Further, our agricultural productivity continues to be low at 1.7 tons/ ha as against the world's average of 2.6 tons/ ha, leave alone the world's best of 4 to 5 tons/ha. This is a matter of concern, and scientists and planners are now advocating the launch of a second Green Revolution which will increase the yield of our crops substantially. If we could do it the first time, we certainly can do it once again.

Another area of concern is the fact that economic growth has not generated the desired number of jobs in the rural areas. One of the most ambitious projects on rural development, National Rural Employment Guarantee Scheme (NREGS) launched in February 2006 hopes to provide employment to millions of people in the rural areas thereby fueling economic growth, as well.

In this issue we discuss several of these issues in historical perspective. The idea is to identify our strength, be inspired by our success, learn from our mistakes and strategize to overcome our limitations.

Kurukshetra wishes its readers a very Happy New Year!













EMERGING ISSUES IN INDIAN RURAL ECONOMY

S. P. Singh

The uneven economic development of rural and urban areas combined with a large pool of surplus labour has pushed the large number of rural workforce to the cities. Thus, in term of generation of GDP, the centre of gravity in the Indian economy has shifted from rural to urban areas, whereas the majority of people still earn their livelihood in rural areas.

ural India comprises 73 percent of the country's population, but its share in the total national income is less than 45 percent. The rural sector is characterized by low income levels, poor quality of life and a weak human capital-base. Although, in the post-economic reform period, India has grown economically faster, her performance in the reduction of poverty, unemployment and economic disparity has remained dismal.

The de-linking of growth with employment has significantly reduced the employment elasticity in various economic activities. Joblessness is particularly acute in the rural areas because agriculture has been in crisis over the last decade. Failure of the neo-liberal policy regime in tackling these issues has now become well-established fact. Rural-urban divide is quite evident in all spheres of human life. What worries most to the policy planners is that its magnitude has accentuated in recent years due to change in the income growth trajectories of rural and urban areas. In the post-economic reform period, our economy has become more open and liberalized with greater reliance on efficiency of the market mechanism. However, a high GDP growth rate is necessary but not the sufficient condition for the socio-economic development of the country. What matters most is how the GDP is generated and how it is distributed across sectors, regions, sections and locations. It is observed that the slow growth in agricultural sector,



faster growth in urban non-agricultural sectors and segmentation of job market through skills have limited the benefits of the growth and widened the rural-urban income gaps. During the reform period, the labour market has not adequately diversified in commensurate with the diversification of the GDP. Agriculture and allied sector, which directly supports the livelihood of about 55 percent of the country's population, now contributes even less than 18 percent to the GDP.

RURAL – URBAN MIGRATION

The uneven economic development of rural and urban areas combined with a large pool of surplus labour has pushed the large number of rural workforce to the cities. In India, the CSO does not compile rural and urban break up of GDP on annual basis. But it makes periodical estimation. It is significant to note that the share of rural areas in the NDP at factor cost has steeply declined from 62.35 percent in 1970-71 to 48.09 percent in 1999-00. Per capita consumption expenditure, an important indictor of human development, is also much lower in rural areas than urban areas. Data from NSS surveys show that the ratio of urban to rural per capita consumption increased from 1.62 in 1993-94 to 1.76 in 1999-00 and further to 1.91 in 2004-05. Thus, in term of generation of GDP, the centre of gravity in the Indian economy has shifted from rural to urban areas, whereas the majority of people still earn their livelihood in rural areas.

It may be noted that the economic reforms initiated by the government in 1991 have also affected the government capacity to mobilize resource to finance the rural development activities. The tax reform and structural adjustment programmes have reduced the developmental role of the state. Agriculture, the backbone of rural economy, has been adversely affected by the sharp decline in the public investment, though the public investment shows an improvement in the recent years. Farm productivity, profitability and sustainability have drastically affected and the agricultural distress has culminated into the suicidal death of thousands of farmers in different part of the country, including the most developed State of Punjab. Per hectare productivity of various crops is quite low when compared to other countries. For example, per hectare yield of paddy in Australia is about 3.5 times of the yield in India; In China and USA, it is twice and 2.5 times, respectively, of the yield in India. Productivity

of wheat in China is over 1.5 times of that in India. Per hectare vield of maize and groundnut in USA was 4 times of the yield in India.

SIZE OF HOLDING

The uneconomical size of holdings in India limits the feasibility and capability of farmers for adoption of new farm technology necessary for improving productivity per unit of land and other inputs. Being the State subjects, investment in irrigation, agricultural research & extension, transport, storage, market, and electricity are made by the state governments, though the central government also invests in these areas. Therefore, the development of agriculture largely depends on the ability and willingness of the state governments to investment in agriculture. The role of the central government is crucial not only in the resource transfer to the states but also in the formulation of macroeconomic policies that directly or indirectly affect agriculture.

However, rural development cannot be confined only to the agricultural development, though agricultural development is one of the key components. Rural development comprises, among others, enhancement of wellbeing of common masses and their socio-economic empowerment. This includes their greater access to basic social services, specially education, health, safe drinking water etc, and to productive employment and also their participation in local governance and decision- making. Therefore, to accelerate the pace of rural development, apart from agricultural development, development of education, health and other social sector infrastructure, governing institutions and evolvement of appropriate policy formulation are necessary.

PANCHAYATI RAJ

It may be significant to mention that the process of economic reform and the process of decentralized planning through PRIs have started simultaneously in the early 1990s. The 73rd h Constitutional Amendment Act empowers the PRIs to make plans for the socioeconomic development of villages. However, the PRIs have not yet become the real institutions of selfgovernance at the grassroots level in many parts of the country mainly due to the repugnance of higher level bureaucrats and politicians to share power with them and lack of capacity of these institutions in performing their envisaged functions and duties. Due to keeping the 29 items of works under the enabling provisions, some states are yet to provide sufficient finance, functions and functionaries to these institutions. The first and foremost necessity for rural development is to strengthen the PRIs in terms of finance, functions and functionaries and capacity building through training and awareness programmes. There is also need to empower the institution of Gram Sabha for the effective functioning of Gram panchaysts. In the absence of supportive social institutions, constitutional mandates may not be adequate to ensure empowerment of weaker sections through political participation. The provision of reservation for women in panchayat is frequently misused by the powerful for promoting their own self-interests. These women, unable to assert their authority in policy-making, are only used as proxy to carry out the wishes of male elders. There is need to improve the economic security of these marginalized sections because an economically un-empowered group can hardly be expected to exercise effective role in GS meetings. There is also need to strengthen the other supportive local institutions such as cooperatives, self-help groups, youth, and women organizations. Poor households should be organized so that they may have their collective voice and have their effective stakes in the functioning of local government.

Rural sector requires substantial investment in five key areas—education, roads, healthcare, information technology, and electricity—to improve the income, employment and living conditions of rural households and to abate undesirable flow of rural workforce to the urban areas. The investment in these areas would strengthen the rural-urban linkages and help in attracting private investment in rural manufacturing, agriculture and modern services. The development projects related to these key areas could be initiated under the well-designed public-private-panchayat partnership (PPPP).

EDUCATION

The access to education in terms of cost of education is limited only to relatively rich rural and urban households who can afford to send their children to private English medium schools and processional institutions of higher learning. Access to the quality education to the children of marginalised groups would help in making the rural development more inclusive and broad-base. Further, the incident of rural poverty is mostly concentrated in labour, small farmers/small

vendors and artisan households. The government is required to initiate group-target oriented schemes for improving their access to education, skills and healthcare facilities so that they may improve their livelihood through upward mobility and occupational diversification. Access to safe drinking water, sanitary facilities and clean cooking fuels is vital not only for improving the quality of life but also for achieving higher level of human development and gender development. Sincere efforts are required towards making these facilities accessible and affordable to the rural masses.

The traditional support system of villages has weakened which negatively affected the social structure and social life of the people, including social cohesiveness. Therefore, effective social security system should put in place to protect the households against the risks of job-loss, crop-loss or market failure.

Planning, management and implementation of NREGS is to be improved through active participation of GS. The NREGS is not only an important stride towards the realisation of the right to work but also a vital step towards creating durable socio-economic infrastructure in rural areas. The work guarantee can serve, among others, the objectives like generating productive assets, protecting the environment, empowering rural women, reducing rural-urban migration and fostering social equity. This scheme should be effectively linked to agricultural development and climate change. Convergence of the NREGS with the untied funds of gram punchayats and with other programmes related to government such as watershed development programme, National Horticulture Mission, SGSY, National Livelihood Security Mission, activities of KVKs, etc would not only help in sustaining the rural livelihood through constructing quality assets and their better utilisation but also help in the efficient utilisation and physical and financial resources.

We talk about adoption of appropriate production technology for improving the resource efficiency and productivity and ignore the adoption of appropriate output-mix in the economy. For that matter, apart from adoption of appropriate production techniques and making the system of production of goods and services more inclusive, adoption of an appropriate output-mix is also necessary.

It is necessary to identify types and nature of data and information required for the policy making for the rural development. The information is required not only to assess the existing policy but also to make available necessary feedbacks to the policy formulators. Therefore, information database should be available at block or even gram panchayat level containing information on socio-economic indicators, rainfall, groundwater recharge and utilization, water demand for difference purposes, land use pattern, cropping intensity and cropping pattern, customary water rights, irrigation system and practices, etc. and it should be linked with national level database through MIS. The NREGS MIS network may be utilised for this purpose. Access of this database to the policy implementing agency at the grassroots level would help to regulate the groundwater and reduce the environmental consequences of its over-exploitation. It would also help the rural local government to implement regionspecific and target group oriented policies.

WATER

Water is one of the most precious resources that need to be managed and used in an efficient manner. The subsidized flat rate of power tariff is considered one of the major reasons for the overexploitation of groundwater in several states of the country. A rational power supply and pricing policy for pump irrigation could be an effective instrument for groundwater management and energy use. The viable option seems to be shifting from flat rate to meter-tariff system. However, farmers should be compensated by providing subsidy on procurement of modern water saving technology, especially in those regions where water table has significantly gone down due to over-exploitation of groundwater. Further, both supply side and demand side policy interventions are necessary for the water conservation, development and management. Supply side measures relate to recharging the groundwater table, conjunctive use of surface and groundwater, supply regulation through registration, user's license, rationing of power supply, raising energy prices, etc., while demand-side interventions comprise improvement in irrigation efficiency through using water saving technology and improving irrigation practices, shifting from high waterintensive cropping pattern to low water consuming one. Integration of water policy with other related policies is required to resolve these issues effectively.

Another issue that needs serious attention of policy-makers is decline in the aggregate area under

all operational holdings from 165.51 million hectares in 1990-91 to 159.90 million hectares in 2000-01, a net decline of 5.61 million hectare. This trend, if not arrested, may adversely affect food, employment and income security as per hectare productivity of major crops have either decelerated or stagnated during the last one decade and scope of bringing more land under cultivation is limited. A large area of agricultural land in the vicinity of urban areas is neither used for agriculture nor used for non-agriculture purposes, used only speculative purposes to get the benefits of rising land prices. This issue needs to be taken serious through by the policy makers.

GROUP FARMING

The solution of the problems of rural India lies both within agriculture and outside the agriculture. Within the agriculture, make small and marginal farming economically viable and environmentally sustainable through developing an institution of "group" farming"; develop a supply chain system for agricultural products that benefits both farmers and consumers through effective linkage between "farmers groups" and "consumers Groups"; protect the farmers from technology and market failure through setting up 'risk mitigation fund'; and achieve inclusive growth giving special focus on the agriculture of rain-fed and dry regions which constitute about 60% of total cultivated land.

Outside agriculture, non-farm employment opportunities must be created for the rural households. The massive investment in five key areas, as stated above would strengthen the rural-urban linkages and help in attracting private investment in rural manufacturing and modern services. Urban economic activities are moving out of big cities to the surrounding rural areas, as land becomes more expensive in the urban areas and environmental regulations become more stringent. High prices of agricultural land and better rural-urban linkages due to improved transport and communication infrastructure would make the rural people living in the vicinity of cities economically better off than the average rural people. This ruralurban linkage should be promoted.

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THE PATH OF INDIAN AGRICULTURE AND **WAY AHEAD**

Dr. Harender Raj Gautam

Since the first Green Revolution in the 1960's foodgrain production has increased significantly from 82 million tonnes in 1960-61 to 129 million tonnes in 1980-81 and 233 million tonnes in 2008-09, to meet out food security and attain self sufficiency specially in the production of our stable food rice and wheat.

ndian agriculture has taken a big leap in the last 60 years. Agriculture which had the responsibility to feed 350 million in 1947 has now 1,100 million people to feed, which is a huge responsibility. India has achieved this feat by multi-pronged strategies and technologies such as Green revolution, Blue revolution, white revolution and of course the latest vellow revolution and is now poised for Rainbow revolution. The compound growth rate in agricultural production is 2.7 per cent per annum since independence. During the financial year 2006-07, the agriculture and allied sector's growth slowed down to 2.7 per cent as against six per cent in the previous year. However, India's economy grew by 9.4 per cent in 2006-07 as against nine per cent in 2005-06. The diversified cropping pattern, cultivation

of commercial crops, crossbred milch and draught animals, fisheries development made a great progress in the country's development. Since the first green revolution in the 1960's the foodgrain production has increased significantly from 82 million tonnes in 1960-61 to 129 million tonnes in 1980-81 and 233 million tonnes in 2008-09, to meet out food security and attain self sufficiency specially in the production of our stable food rice and wheat. The country faced severe food shortage and crisis in early 1960s which forced the policy makers to realise that continuous reliance on food imports and aid imposes heavy costs in terms of political pressure and economic instability and there was a desperate search for a quick breakthrough in agricultural production.



Green Revolution

Green revolution has been the most spectacular success story from India which made the country self reliant in foodgrain production. The success is manifestation of futuristic vision, faith, courage and the sincere efforts on the part of the scientists and the Government of the day. These historic policy decisions were amply supported by the efforts of the farmers in Punjab and Haryana. During the late 1950s and early 1960s, food deficits in the country forced India to import 3 to 4 million tonnes of foodrains every year. However, due to bad monsoon in 1965 and 1966, India was forced to import 10 million tonnes of foodgrains and the country was in dire straits. One choice before the country was to go for spread of new seeds of high yielding varieties (HYV) of wheat and rice. Dr. M.S.Swaminathan is one of the main architect of Indian Green Revolution, which started in 1960s and pulled the country from pawl and gloom of hunger and malnutrition and saved millions of lives.

Amidst a serious debate the then Government took bold decision to go for the import and spread of HYV of wheat and rice which involved use of fertilisers and irrigation. In 1965, Dr Swaminathan persuaded the Indian government to order the seed of high vielding wheat varieties. India's Food and Agriculture Minister during 1966-67, Bharat Ratna Mr. C. Subramanium made a very courageous and historic decision in early 1966 to import 18,000 tonnes of HYV wheat seed. Eager farmers took it up with astonishing results. Punjab was selected by the Indian government to be the first site to try the new crops because of its reliable water supply and a history of agricultural success. India began its own Green Revolution programme by making further improvements in the Mexican wheat by plant breeding, irrigation development, and use of agrochemicals. The wheat campaign was led at the front by none other than the then Prime Minister of India- Mrs Indiara Gandhi. She got planted a plot of new wheat in front of the Prime Minister's residence and at her insistence, all professors in agricultural universities in the wheat belt were directed to plant a wheat demonstration plot employing the new technology in their front yard.

Similarly, India adopted IR8 - a semi-dwarf rice variety developed by the International Rice Research Institute (IRRI) that could produce more grains of rice per plant when grown with certain fertilizers and irrigation. This was 10 times the yield of traditional rice. IR8 was a success throughout Asia, and dubbed the "Miracle Rice". In the 1960s, rice yields in India were about two tons per hectare; by the mid-1990s, they had risen to six tons per hectare. India became one of the world's most successful rice producers, and is now a major rice exporter. In 2006, India shipped nearly 4.5 million tons. In 1960-61, foodgrain production was 82.02 million tonnes and which increased to 108.42 million tonnes in 1970-71. Although the cultivable land increased from 124.32 to 127.84 million hectares between 1970-71 and 1990-91, the effect of green revolution continued and foodgrain production zoomed to 176.39 million tonnes. This marked the second phase of agriculture policy in the country. The strategy produced quick results as there was quantum jump in yield. Consequently, wheat and rice production in a short span of 6 years between 1965-66 and 1971-72 witnessed an increase of 30 million tonnes which is 168 percent higher than the achievement of 15 years following 1950-51. Foodgrain production which was 68 MT in 1968-69 jumped to 108 MT in 1971 and by 1974, India's wheat production had tripled and India was self-sufficient in food. This pulled the country from near famine condition to an era of plenty to date.

Need for Second Green Revolution

Green revolution introduced use of improved inputs-fertilisers, pesticides, seeds and irrigation facility. But the impact of green revolution was mostly evident in areas with irrigation facilities. In spite of the green revolution, our agricultural productivity continues to be low at 1.7 tons/ ha as against the world's average of 2.6 tons/ ha, leave alone the world's best of 4 to 5 tons/ ha. India with 16 per cent of global population has less than 2 per cent global land area, around 1.5 per cent of forest, consumes just around 3 per cent of energy and accounts for only for 1.3 per cent of the global GDP. Total food grain production in 2006-07 was marginally higher at 209.2 million tonnes compared to 208.6 million tonnes in 2005-06. The average annual growth in agriculture in the 10th Five-Year Plan was mere 2.3 per cent against the target of 4 per cent.

Low investment in agriculture, imbalance in fertilizer use, low seeds replacement rate, a distorted incentive system and low post-harvest value addition continue to be a drag on the sector's performance. Share of agriculture in the country's GDP has declined from 48.7 in 1950 to 24.4 per cent in 1996-97 and further 18.7 per cent in 2007. Agriculture sector is the backbone of country's development and lifeline for 65 per cent of the population based in rural areas and approximately more than 58 per cent of the population still dependent on agriculture for their livelihood. Besides this to achieve an ambitious rate of growth for the country of as high as 9-10 per cent in the eleventh five year plan, the country needs a strong pull-up support to the agriculture sector which should grow at least at the rate of 4 per cent per annum, all the more since in 2005-06 the growth in agriculture was merely 2.2 per cent. As estimated by the National Commission on Population, the country's population is expected to touch 1.33 billion by 2020-21 and the demand for foodgrains around 280 million tonnes. This means that foodgrain production has to grow by 2 per cent a year over the next decade.

However, weakening agricultural performance beginning with the mid nineties, is a national concern. The marked slow-down in growth rates in the traditional "green revolution states" and the breadbasket of the country, namely, Punjab, Haryana and Uttar Pradesh ("green revolution fatigue") is a major setback. As these states account for 74 and 26 per cent of the production of wheat and rice respectively, these lower growth rates are again raising food security concerns. At the same time, the states of Bihar, Orissa, Assam and MP, in which rural poverty rates and dependence on agriculture are the highest; agriculture shows limited and slow improvement. The challenge of sustaining growth over the longer term has been highlighted by several recent studies that find total factor productivity (TFP) in agriculture declining between the 1980s and 1990s. It is reported that while TFP grew by 2 per cent per year between 1981 and 1990, the growth rate became negative during 1990–96 in the Indo-Gangetic Plains, comprising the states of Punjab, Haryana, Uttar Pradesh, Bihar and West Bengal. The studies attribute the deceleration in TFP growth rate to the slow-down in productivity gains from the earlier adoption of highyielding varieties, the decline in public investments in

the agricultural sector, and increasing degradation of natural resources. The available data show that the productivity of kharif sorghum can be increased 3 to 4 times, rabi sorghum 1.4 to 2.3 times and bajra 1.8 to 2.3 times from their current level of productivity. Similarly, the productivity of pulses and oilseeds can be increased 2.3 to 2.5 times, through attention to seeds, soil health, pest management, crop life saving irrigation and post-harvest technology. Supplemental irrigation based on rain water harvesting will help to increase yields further.

A second area needing immediate attention and action relates to improving the productivity of wheat, rice, pulses and oilseeds in the Indo-Gangetic plains and eastern India, particularly in Bihar, Jharkhand, Chhattisgarh, Orissa, eastern Uttar Pradesh, West Bengal and Assam. The green revolution in wheat and rice, white revolution in milk, yellow revolution in oilseed and the "blue revolution" in fisheries have augmented the food basket of the country. But many technological challenges remain.

Future Initiatives

Modernization of agriculture was required both in terms of technological and institutional changes. The Mid-term Appraisal of the Tenth Five Year Plan (2002-07) drew attention to the loss of dynamism in agriculture and allied sectors after the mid-1990s. Hence, various policy initiatives have been taken in recent years to promote the agricultural sector. These include the following: (a) National Agriculture Policy, 2000, (b) Vishesh Krishi Upaj Yojana, 2004, (c) National Horticulture Mission, 2005, (d) National Policy for Farmers, 2007, (e) Comprehensive District Agriculture Plan, 2007, (f) Rashtriya Krishi Vikas Yojana, 2007 and (g) National Food Security Mission, 2007.

The compulsions of ushering in the 2nd Green Revolution require application of biotechnology as an important instrument for operationalising this strategy. Despite the Green Revolution through which India attained self-sufficiency in food production, particularly in rice and wheat, several sub-sectors like oilseeds, pulses, horticulture, animal husbandry, fisheries and poultry lag far behind world productivity levels. While on one side, expenditure of fertilizers and pesticides are increasing and eating into the income of the farmers, excessive use of inputs are proving detrimental to the environment. Lower rates of growth in agriculture are pulling down the overall national GDP growth. Therefore, there is need to stabilize and enhance yields through all possible intervention.

FOCUS OF AGRICULTURE

The Indian agriculture has to focus on five key areas which are irrigation, biotechnology, protected cultivation, post-harvest technology and crop specific missions. As Indian agriculture is mostly rainfed, there is need for augmenting the irrigation facilities and this can be done by rainwater harvesting and by ambitious plan of inter-linking of the rivers. There is also urgent need for application of biotechnology in agriculture. The biotechnological tools should be used to produce high yielding, pest-resistant and drought and flood resistant varieties of major foodgrains, pulses and oilseed crops. Government has and will continue to support and contribute to initiatives taken by the stake holders to hasten the process of biotechnology applications in agriculture. Protected cultivation is also important to increase the production of vegetables, fruits and ornamental crops in the country. In protected cultivation, two to three times higher yield of vegetable, fruits and ornamental crops can be realized which can further boost the agriculture production in the country. India is having only 3000 ha area under protected cultivation in comparison to more than 50, 000 ha area in Spain. The protected cultivation should be introduced in low productive areas with innovative farmers with strong technological and financial support of the Central and state governments.

Value addition in the form of food processing is another key area which can bring sustainability to the food security as agriculture produce worth Rs. 55, 000 crores is wasted every year due to post-harvest losses. It is around two per cent for fruits and vegetables, 26 per cent for marine, six per cent for poultry as against 60 to 70 per cent in developed countries.

India has adopted "Vision 2015" which aims to triple the size of food sector in 10 years time by increasing the level of processing of perishables from 6 to 20 per cent, value addition from 20 to 35 per cent, share in global trade from 1.6 to 3 per cent. This would require making processed food affordable domestically and competitive globally. An investment of about Rs. 1,10,000 crores is envisaged in the next ten years.

Further, there is need for crop specific and time bound crop specific missions in key crops like wheat, rice, maize, sugarcane, potato which constitute majority of our food basket. The goals of these missions should be redefined every 5 years to infuse new technological tools.

Beyond these key areas, there is need to revamp the research, teaching and extension network of the state agriculture universities. Most of the agriculture universities face resource crunch in funding their different research, teaching and extension programmes. The Central Government should exert more administrative influence on these institutions in prioritizing their research, teaching and extension programmes. The funding to these institutions should be increased linked with time bound objectives and with a cap on need-based scientific and other manpower. The central government should also devise effective system in inter-linking the institutes of Indian Council of Agricultural Research and other institutes engaged in agriculture research with the state agriculture universities for pooling of the resources scientific expertise in achieving common objectives. Keeping in view the strong Research and Development base in the country and trained man power this should be possible within the short term. India has considerable strength in agricultural research and education. We have the third largest pool of scientific and technical professionals. The country is native to several economic and commercial crops and plants with large diversity of genetic materials in rice, maize, several pulses, mango, banana, citrus fruits, cotton, oilseeds and many others. Given such an agronomical rich environment, the potential and opportunities available to professionals and investors are vast. Every thing can wait but agriculture can not wait as it is linked to the bread and butter of more than one billion population of this country. Hence, agriculture should continue to receive the first priority and best and dedicated efforts of everybody in the ladder of governance and decision making in the field.

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RURAL DEVELOPMENT PROJECTS AND PROGRAMS

Dr Amrit Patel

For India, rural development has been an integral part of nation's socio-economic-politico development. The problem is not merely one of development of rural areas but of the development of rural communities—to dispel ignorance and poverty and create self-reliant and self-sustaining healthy modern little communities

ndia, after Independence, emphasized growth, modernization, self-reliance and social equity while planning for accelerating the pace of economy. With the launching of Community Development Program [1952] and establishing a network of National Extension Services in the villages a beginning was made to create awareness among rural communities of the potential and means of development. This institutional infrastructure at grass-root level facilitated abolition of intermediary landlords system and implemented land reforms that

enabled farmers to adopt technologies in agriculture. Investments in the successive Five Year Plans helped establish essential physical, social and institutional infrastructure to bring about socio-economic change in rural areas. Several programs were introduced in successive Five Year Plans for agricultural development, employment generation, promoting rural, cottage and artisan-based industries, poverty alleviation, special area development, meeting basic/minimum needs towards rural development during pre-reforms period:



Inter-district Imbalances: Developments in urban areas bypassed rural areas. While industrial and urban sectors benefited significantly, the farm sector did not progress to meet the needs of 70% of the population engaged in agriculture. Within rural areas the development was not uniform. Investigation by Planning Commission [1976], after 25 years of planning process, showed that 25% of the 400 districts had a negative growth rate during the preceding decade and another 14% districts had a growth rate between zero and one per cent. About 25% of districts recorded an annual average growth rate of more than 3% and guite a few districts had between 5% and 7% increase. Some districts had an average annual growth of more than 10% showing they had doubled the growth within 10 years. A comparison of these growth rates established that while poverty had increased in 100 districts, the disparities between them and among districts with higher growth rates had increased over this period. While 100 districts had not enjoyed the benefits of development, in other districts where growth did take place did not benefit everybody, particularly the landless laborers, marginal/tenant farmers, share croppers, artisans, tribal and those living in hill, desert and drought prone areas.

Post-reforms Period: During post-reforms period while Government introduced several new programs [Accelerated Irrigation Benefit, Prime Minister's Rozgar Yojana, Sawaran Jaynti Gram Rozgar Yojana, National Rural Employment Guarantee, Bharat Nirman], banks started linking Self-Help-Groups and financing MFIs. Government policy focused accelerating country's GDP and nationalized banks' operations focused improving net profit, thereby according low priority to agriculture and rural development.

Dismal Rural Scenario: Urban-rural divide further widened and agricultural growth declined steeply. Rural households' dependence upon noninstitutional sources significantly increased.

- During 2000-08, GDP growth rate in agriculture declined to 2.9%.
- Foodgrains growth rate declined from 2.73% in 1980s to 2.09% in 1990s and further to 2.01% in 2000-08.

- Annual per capita food grains' availability is 176.3 kg against the minimum required [182.5 kg] according to National Institute of Nutrition.
- Decline and stagnation in agricultural terms of trade during 1990-2005 explains the declining financial viability of crop production and fast eroding Government's ability to contain food prices.
- Between 1960-61 and 2003, number of holdings doubled from 51 million to 101 million, while the area operated declined from 133 million hectares to 108 million hectares resulting in a sharp decline in average size of holding from 2.61 to 1.07 hectares. With growing marginalization, small and marginal farmers increased to 85.9% in 2003 from 61.7% in 1960-61.
- According to NSSO, average total income of farm households [upto two hectares] was less than 80% of their consumption expenditure and 40% of farmers interviewed wanted to guit farming, if there was option
- Hunger and deprivation affect about 260 million people in the country. India has 40% of the world's underweight children and ranks 126 among 177 countries in the UNDP Human Development Index. It is difficult to reduce hunger and poverty by half by 2015, targets under UN's Millennium Development Goals for sustainable Human Security and Peace.
- As on 2000, India alone accounted for nearly one-fourth [364 million] of the world's poor, highest number of maternal deaths & undernourished children. Infant & Maternal Mortality Rates are worse than those in some countries of sub-Saharan Africa.
- Rural households' share of formal debt in total indebtedness declined from 64% in 1991 to 57.1% in 2002. Moneylenders' share in debt increased from 17.6% in 1991 to 29.6%

in 2002. After 100 years of policies designed to progressively institutionalize rural credit system, nearly 30% of rural debt is now sourced from informal lenders.

- According to NSSO [2002-03] 45.9 million [51.4%] farm households out of total 89.3 million in India did not access credit [either institutional or non-institutional sources]. Only 27% of total farm households are indebted to formal sources [of which onethird also borrows from informal sources]. In short, 73% farm households do not have access to formal credit sources.
- Andhra Pradesh, with the highest concentration of SHGs, MFIs and banks, reports 73% of rural noninstitutional debt and 57% of rural moneylenders' debt among all States in India, according to All India Debt & Investment Survey [2002].
- The Rajan Committee on "Financial Sectors Reforms" and RBI's report "Trend and Progress of Banking in India, [2007-08]" reveal that even after four decades of banks' nationalization, country's 41% adult population remains outside the banking system.
- Between 2004 and 2008, the number of rural branches declined by 968, whereas total number of branches of all categories of commercial banks increased by 9541 [14.2%].
- According to RBI, 256 districts in 17 States and one UT manifested credit gap of 95% and above.

Concept

For India, rural development has been an integral part of nation's socio-economic-politico development. The problem is not merely one of development of rural areas but of the development of rural communities to dispel ignorance and poverty and create self-reliant and self-sustaining healthy modern little communities. Rural development can no longer be identified with mere increase in Gross National Product or even per capita national income. The increased income should be distributed so as to result in significant diminution of inequalities of income and wealth. Every rural family should have its reasonable share in the generation of GNP and sharing increased per capita income. The objective should be to reconstruct the rural economy in such a way that income flowing from the ownership of productive assets, skills and labor would be automatically distributed more equitably. This fact focuses the need for building viable rural communities of functional rural clusters with improved dwellings, dependable energy supplies, adequate transport and communication facilities that link to the larger world, health and educational facilities, access to credit and markets, culturally invigorated and no longer compartmentalized by barriers of castes and feudal distinctions based on land ownership or occupation.

Development is above all a human process and not just a mechanical or technological change. Development does not mean the construction of physical structures, installation of machines or adoption of latest technology. It is the development of the people, which implies generating in them the awareness of their surroundings, understanding of their problems, identification of opportunities available for a better life, a capacity to work out what needs to be done and formulating programs to fulfill their needs, goals and aspirations. The goal of development is to enrich the quality of life, both individual and collective and its universalization in terms of minimal, if not equal, availability to all sections of the population.

Integrated rural development means optimum utilization of natural and human resources of a given rural area for the enrichment of the quality of life of its population. Optimum utilization emphasizes production, distribution, employment, upliftment of rural poor above poverty line and environmental harmony. Rural economic activity is considered in the context of market economy and the inadequacy in the supply of capital and skills in the rural areas. Integrated rural development considers the links of the rural area concerned with its market relations, the two-way mobility of capital, labor, policies on economic growth and social justice.

Planning

Planning exercise emphasizes provision of the basic institutional conditions necessary for maximization of rural productive resources, securing mass participation and ensuring equitable distribution. For a successful rural development task, a production plan is drawn up, which aims at diversification of economic activities, free rural areas from their present domination by agriculture and bring about a significant increase in the share in output and employment of allied activities, industry, business and service sectors of economy. Since this has not been seriously attempted rural development has merely remained an agricultural development and significant decline in its GDP without reducing workforce aggravated problems of unemployment, inequitable distribution and poverty.

Rural development cannot be accomplished through piecemeal efforts and in isolation of total development of rural areas and building selfsustaining rural economy. Planning exercise should focus on [i] optimum utilization of the growth potential of the villages to increase the employment, production and income [ii] ensuring a larger than proportionate gains of development to the weaker sections of the population [iii] alleviating chronic unemployment through employment on public works such as irrigation, drainage, roads, railways, housing, soil and water conservation, rain water harvesting, flood control, watershed development, desilting and maintenance of water bodies, afforestation [iv] augmenting the duration and productivity of employment in their existing occupations through technology upgradation, imparting skills and establishing non-exploitative institutions of credit, marketing and service providers.[v] reorienting existing institutions/ organizations to protect the interest of the poor [vi] promotion of progressively more egalitarian structure of ownership of assets.

Approach

Integrated rural development calls for satisfying the basic minimum needs of all rural households, such as schools; water supply, drainage and sanitation; health and community centers; transport and communication; energy and fuel. Growth Center Approach is most appropriate for planning integrated rural development. Based on the principle of "equal accessibility" this approach can bring all these facilities,

services and local administration [panchayats] within easy reach of the population. The growth center should be equipped with all the required facilities such as [i] a training center to impart practical training and build capacity to enhance productivity of agriculture and rural/cottage/agro-based industries [ii] a mobile training-cum-demonstration unit to provide on the spot training, repair and maintenance services for agricultural and industrial machineries [iii] a marketing-cum-warehousing facilities that can provide safe storage and marketing of farm produce and cottage industries products [iv] a forest and grass nursery to provide fruits, fuel, fodder and forest cover [v] a developmental school based on the "earning while learning principle" and oriented to develop a cadre of self-employed workers in the area of human, animal, plant and soil-health care and [vi] a residential housing complex for workers in the project area.

Conclusion

In absence of appropriate rural development policy environment and tardy implementation of land reforms there has been increasing marginalization of land holdings and number of landless laborers. The lack of micro-level planning, absence of people's participation and uncoordinated efforts by a multiplicity of agencies did not yield expected results. These programs are merely reduced to subsidy giving programs shorn of any planned approach to the development of the rural poor as an inbuilt process in the development of the area and its resources. Studies and surveys point out glaring deficiencies in planning, implementation and monitoring, despite programs are conceptually well thought of, establishing lack of concern, commitment and accountability of implementers. Unfortunately achieving targeted physical units and financial expenditure is more important than achieving the ultimate objectives. It is necessary to revisit concept, planning and approach towards rural development programs.

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SIXTY YEARS OF INDIAN REPUBLIC, UNFINISHED AGENDA OF GRAM SWARAJ

Prof. Ranbir Singh

Credit should be given to S.K Dey, the first Union Minister of Community Development, Cooperation and Panchayati Raj (1957-1966). It was he who had convinced Nehru on the necessity of Panchayati Raj for the success of parliamentary democracy in India. He was of the view that the Gram Sabha should be linked with the Lok Sabha for this purpose.

n the basis of his discovery of India, the Father of the Nation, Mahatma Gandhi found that the real India lives in the villages. Therefore, he felt that the Indian National Congress can not be converted into a national movement, in the true sense of the word, without the political mobilization of the rural masses. For achieving this objective, he not only launched the Rural Reconstruction Program but also promised Gram Swaraj. He declared that the Swaraj of India would remain incomplete without the Gram Swaraj. He wanted that the independent India

should be a commonwealth of politically independent and economically self-sufficient villages. The fact of the matter is that he wanted a political system with maximum powers at the base and minimum powers at the top.

It goes without saying that the Mahatma stood for complete political and economic decentralization of powers for creating a polity based on truth and non violence which were the fundamental principles of his political philosophy. In other words, Gandhi favoured participatory democracy instead of



parliamentary democracy. He also wanted a partyless democracy

PANCHAYATI RAJ

Panchayati Raj was created on October 2, 1959 on the recommendations of Balvantray Mehta Study Team (1957). The Team had suggested a scheme of democratic decentralisation for streamlining the Community Development programme (1952), which had been introduced to bring about a silent revolution in rural society by awakening the dormant forces of progress in it. The scheme provided for a three tier structure of Panchayati Raj with the Gram Panchayat at the base, the Panchayat Samiti in the middle and Zila Parishad at the top.

The Panchayati Raj underwent the phase of development (1959-1964), the phase of stagnation in (1964-1971) and the phase of decay (1971-1977). The phase of its revival started in 1978. and resulted in the enactment of the 73rd Constitutional Amendment Act (1992).

The phase of development in fact had started after the submission of the Report by the Balvantray Mehta Study Team in 1957. The first step in that direction was its approval by the National Development Council. This was followed by the Conference of the Ministers of Local Self Government of various states at Hyderabad. It was resolved to accept the scheme of democratic decentralisation suggested by the Team and approved by the Council. However, it was also decided that every state should have the freedom to adopt the scheme as per its requirements. But there should be democratically elected and organically linked bodies at the village, the block and the district levels. More over, there should be a genuine decartelization of powers to the Panchayati Raj institutions. Rajasthan was the first states to introduce it on October 2 1959 By 1962, the Panchayati Raj had been set up in almost all the states of Indian Union. This happened because the Congress party was not only ruling in the centre but also in all the states India except Kerala. Another reason was the support to the Panchayati Raj by the then Prime Minister of India and the leader of the Congress party, Jawaharlal Nehru. The credit for it should also be given to S.K Dey, the first Union

Minister of Community Development, Cooperation and Panchayati Raj (1957-1966). It was he who had convinced Nehru on the necessity of Panchayati Raj for the success of parliamentary democracy in India. He was of the view that the Gram Sabha should be linked with the Lok Sabha for this purpose.

The phase of stagnation started in 1964 after the death of Jawaharlal Nehru because his successor as Prime Minister, Shri Lal Bahadur Shastri did not share Nehru's enthusiasm for democratic decentralisation. Moreover he had to give priority to increase in agricultural production on account of the food shortage. The growth of the Panchayati Raj remained stagnant during 1964-1971.

AFTER 1971

The phase of decay began after the 1971 parliamentary elections in which Mrs. Indira Gandhi had emerged as the supreme leader of the Congress Party which had emerged as the dominant party. The Congress was able to establish its rule in all the states except Tamil Nadu. And, Mrs. Indira Gandhi had begun to follow the style of centralisation. As a result, the Panchayati Raj began to decay after 1971and had become merely a shadow without substance by 1977 particularly after the imposition of Emergency in 1975.

Here it is pertinent to mention that Nehru had apprehensions about the future of Panchayati Raj after him. This is evident from his enquiry from S.K. Dey in this context. He had warned him to strengthen Panchayati Raj and had also told him that he has very little time for doing so. Even Dey had a fear that the Panchayati Raj will be done away with in the northern states of India. However, it would not be weakened in Maharashtra and Gujarat where its roots had become strong (S K Dey, Destination Man: Towards a New World, 1982, p88). It may be noted that their fears proved true and Panchayati Raj declined in all the states of India after the death of Nehru. This was done by setting up parallel institutions and agencies, by reducing their powers, by cutting their funds, by withdrawing their functionaries, by postponing their elections, by suspending and removing their representatives and by superseding and dissolving Panchayati Raj institutions.

The phase of revival began after the appointment of High Powered Committee by the Janata Government in the centre in 1977. This Committee, which is known as the Asoka Mehta Committee submitted its Report in 1978. It made some concrete suggestion for the revival of Panchayati Raj. But its recommendations could not be implemented because the Janata Government lost power in 1979 due to the split in the party in July 1979. Charan Singh led Minority Government which succeed it had neither the time nor the strength to consider that report.

RAJIV'S BIG PUSH TO PANCHAYATI RAJ

However, the Non Congress Governments of West Bengal, Karnataka and Andhra Pradesh did create effective systems of Panchayati Raj in 1982-83 by adapting the model suggested by Asoka Mehta Committee. In the mean time, the then Prime Minister of India, Shri Rajiv Gandhi, who had succeeded Indira Gandhi in 1984, decided to strengthen the Panchayati Raj by giving it a constitutional status and by making it inclusive in character. He decided to do so because he wanted to empower the people for implementing the rural development programmes as he had come to know that out of one rupee only an amount of 15 paisa reaches the people for whom these are meant. That is why he moved the 64th Amendment Bill in the Lok Sabha in 1989. The Bill was passed by the Lok Sabha but failed to get the required two-third majority in the Rajya Sabha because the opposition parties viewed it as a threat to the autonomy of states. V.P Singh led National Front Government which came to power after the 1989 parliamentary elections, did take it up but could not get it passed due to political instability. Chander Shekhar led Minority Government had neither the interest nor the time nor the strength to do so. However, P.V. Narshima Rao led Congress Government was able to complete the unfinished agenda of Rajiv Gandhi by building a consensus in its favour. Consequently, the 73rd Amendment Act (1992) was enacted.

It not only provided for the creation of a uniform three tier structure of Panchayati Raj in all the states except in those having a population of less than 20 lacks but also made provision for the reservation of one-third seats and offices for women and reservation for the scheduled castes/tribes in proportion to their strength in the population. It also made provision for the setting up of the State Election Commission for conducting fair and free elections after every five years and States Finance Commission for ensuring adequate resources to the Panchayati Raj Institutions. The Act also included the 11th Schedule in the Constitution of India that listed 29 subjects on which the powers were to be devolved by the state legislatures on the Panchayati Raj Institutions for enabling them to work as the Institutions of Self Government for making and implementing the plans of economic development and social justice. It also required the states to enact conformity legislation for this purpose within a year of the implementation of the Act in 1993 (Garish Kumar, Local Democracy in India: Interpreting Decentralization, 2006, pp14-24).

This is how the new system of Panchayati Raj was created in all the states. But this is far away from Gandhi's vision of Gram Swaraj because the Panchayati Raj Institutions have not been given adequate functions, functionaries and funds in almost all the states except in West Bengal, Kerala, Karnataka and Madhya Pradesh. The MLAs have also been creating hurdles as they view the Panchayati Raj leaders as the prospective rivals. Moreover, the representatives of the remaining states did not put pressure on their Governments to do so. The hostility of the bureaucracy also prevented the devolution of powers on the Panchayati Raj Institutions Even the missionary zeal of the Union Minister of Panchayati Raj from 2004 to 2009, Mani Shankar Iyar, for the devolution of powers to the Panchayati Raj Institutions through organising Seven Round Table conferences of the Minister of Panchayati Raj of the State Govt. and signing of Memoranda of Understanding with the Chief Minister of the states for Activity Mapping have brought little difference (D. Sundar Ram, "Democratic Decentralisation and Good Governance in India: Promises and Perils", a paper presented at the National Seminar ' Democratic Decentralisation and Good Governance' HIRD, Nilokheri on January 8-9, 2009). Therefore, genuine devolution of powers is direly needed for realising the Gandhi's visions of Gram Swaraj.

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RURAL INDIA - THE NEW GROWTH ENGINE

Jogender Sharma

In a survey conducted by ORG-MARG for the Ministry of Panchayati Raj, it was found that the elected representatives of panchayats are strongly taking up social issues. Discouragement of child marriage attracted the highest intervention by 71% representatives followed by male child obsession (44%). Problem of gambling was addressed by 41% and alcoholism by 26% of panchayat leaders

ndia has traditionally been an agrarian economy. Agriculture contributed more than 50% of GDP in the 60s, while almost two third of the population was dependent on agriculture. But use of traditional methods of cultivation, marginal landholdings and greater dependence on monsoon had put the agriculture in a distressed situation, thereby adding to economic woes of the rural mass dependent on it. However, those days are passéd. Now, most of the companies

belonging to various sectors like FMCG, telecom, automobiles, banking and financial services have explored the rural market and want to increase their exposure to this sector.

STRATEGISING RURAL GROWTH

Prolonged recession worldwide has sent companies across the globe knocking at emerging markets to fuel the growth engine and to support, on long term basis, the momentum of business



growth. Policy makers indicate that the next phase of economic growth will emanate from developing nations.

The burgeoning rural class, which holds over 70% of the Indian population, is seen as the most lucrative segment to take the mantle of growth and companies across sectors are wooing them to attract business. The renowned marketing guru C. K. Prahlad in his book titled BOTTOM OF THE PYRAMID has manifestly explained the scope of the lower class that can create a new growth market and catapult business levels.

The telecom sector has already carved a prominent model that is shifting focus to rural areas of organic growth, as majority of the players are expanding their rural infrastructure base. The Indian telecom sector is growing at an extraordinary pace with a subscriber base crossing 413 million in the first quarter of 2009. Of this, we have only 117 million rural subscribers (only 14.36% rural tele density). In order to achieve the desired objective of crossing the 500 million telephones by 2010, the Government would need to address the challenges being faced by the telecom industry.

The paradigm shift in many sectors focus to chase the rural market is based on several factors, and one of them is scale. The government has put in place a number of supportive rural policies to stimulate rural development which will further spearhead potential demand in rural markets. Recent government measures like the farmer's loans waiver programme, National Rural Employment Guarantee Scheme and increasing minimum support price for farm products, has rapidly increase disposable income in rural India.

SUSTAINED RURAL DEMAND

In the global economy battling recessionary pressure, the Indian economy too witnessed a slowdown in growth in the past year. However, India's rural economy remained virtually unscathed,

in part due to the country's almost autonomous agricultural sector. With a large rural population base dependent on farming and allied industries, agriculture continues to be the priority area for the Indian government. The past year reasonably good minimum support prices and open market prices for several crops.

While companies in industries ranging from telecom to consumer goods benefited from their rural forays, the success of the purely rural companies was more visible. Companies that predominantly cater to the rural market-fertilizers, agrochemicals, producers of farm inputs such as tractors or irrigation systems- made a strong showing.

The fundamentals of the agriculture sector continue to be robust and will drive growth in the years to come. With the availability of land under agriculture being limited and decreasing in many areas, the need to drive productivity by judicious use of appropriate agri-inputs is imperative. Thus, the long-term growth prospects of companies focused on the rural economy will remain attractive.

PANCHAYATS LEADING SOCIAL CHANGE

Participating in local governance by the elected representatives of panchayats is a known factor, but of late they were found to be actively involved in wiping out social problems from their communities. In a survey conducted by ORG-MARG for the Ministry of Panchayati Raj, it was found that the elected representatives of panchayats are strongly taking up social issues. Discouragement of child marriage attracted the highest intervention by 71% representatives followed by male child obsession (44%). Problem of gambling was addressed by 41% and alcoholism by 26% of panchayat leaders.

The survey sought to test whether the process of empowerment through Panchayati Raj had helped in other areas like increasing female literacy levels or check incidents of domestic violence. On domestic violence, 62% women representatives admitted having come across these incidents which they tried to reduce while 11% said intervention was not required. School enrolment, particularly for girls, was an area of priority area for many panchayat leaders and members. Eight out of every ten pradhans (80%) took initiatives to increase school enrolment. However, on health matters, the indicators were dismal as only 67% pradhans participated in health related campaigns. When questioned on the developmental issues and the types of amenities they helped provide, the majority of elected representatives mentioned drinking water (86.4%), followed by road construction (74.3%) and sanitation (70%) as an area of priority, while a large number of elected women representatives raised issues relating to women and child, and sanitation, a higher proportion of women were also found making efforts to provide street lights, drinking water, construction of bus shelters.

GROWING INVESTMENT

Direct government expenditure in agriculture has seen a sharp rise over last five years, enabling better farm credit and creation of support infrastructure like irrigation. As a result, India has seen a spurt in the capital formation in the agriculture sector, which is visible in increased proportion of irrigated land and pesticides. Apart from investment in agriculture, the government is emphasizing on developing infrastructure such as roads, housing, telecommunication, electrification and irrigation under a national project called Bharat Nirman Yojana. Thus, the overall development may help to increase the purchasing power in the rural India, besides raising the quality of rural life. This is good news for companies whose financial fortune is directly linked to the farmer community and rural consumer.

SOCIAL DEVELOPMENT **THROUGH NREGA**

The basic problem in rural area is low income, which is also seasonal in nature. To address this issue, the previous parliament came out with the National Rural Employment Guarantee Act, which gurantees 100 days of employment to every adult in the rural areas every year. Most of the jobs are provided during the non-farming season and thus supplement family income without upsetting the farming cycle. The implementation of this Act is an important reason for the 3 surge in rural income and it has reduced the dependence on farm income to a large extent.

The scheme was launched initially in 200 districts and Uttar Pradesh saw the highest jump in average daily wages of agricultural laborers. It registered 72.4% jump in; its daily wages to Rs. 100 per day now from Rs. 58 when this scheme was launched. Considering the achievements of the scheme, government plans to increase its outlay for NREGA programme by 50% this year to nearly Rs.42,000 crore.

TRENDS OF AGRO COMMODITY PRICES

After the green revolution, urban consumers gained by way of cheap food, but it affected food grain price and made agriculture an economically unviable occupation. This trend, however, has reversed over the last few years. The consumption of especially high-end food gains like wheat, rice and pulses, has risen faster than the growth in supply, building up underlying pressure on prices. Most of agro commodities witnessed sustained rise in prices in the last couple of years, which are currently at nearly double their 2001 prices.

Rural India, which was unnoticed for the past several years, is now at the centre of attention for India Inc. The change has not happened overnight. Government's thrust on aam aadmi, extended scope of NREGS and higher expenditure on rural infrastructure development, are the factors that would see increased cash flow in the hands of rural masses in coming years, which in turn will create lot of business opportunities for India Inc to grow.

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DEVELOPMENT PLANNING AND POVERTY ALLEVIATION IN RURAL INDIA

Dr. K. K. Tripathy

The sustainable development intervention in the rural areas largely depends on the successful and effective implementation of self-employment programmes. Since independence the country has formulated various rural self-employment programmes and has restructured and revamped them envisaging their wider outreach and acceptability. However, the issues, challenges and concerns relating to the implementation of the self-employment programmes have remained more or less the same.

t the time of independence in 1947 India was steeped in problems like acute poverty, mass unemployment, under-employment, static agriculture, accentuated by a vast magnitude of an illiterate and untrained labour force, inadequate and inefficient tertiary sector, unhealthy banking and financial sectors. These multifarious and allpervasive issues required a common national effort for solution. The Constitution of India laid down the Directive Principles of State Policy which addressed

these problems comprehensively. These Principles reflect India's predilection towards socialism, leading to the designing and making of a Welfare State. Their objective was the progressive removal of inequality of all sorts viz. social, economic and political, from the geographical boundaries of India. From Independence till now, India has pursued a planned approach as a lever of her social and economic change, thereby actualizing all-round economic development. Various prudent macro-economic



management policies in numerous key sectors like banking, basic industries, utilities and infrastructure were taken into consideration. The results of this development strategy were mixed.

In this paper, in addition to reviewing the development strategy for poverty alleviation in India since independence, an attempt is made to assess the impact of the currently implemented world's largest rural self-employment programme, Swarnjayanti Gram Swarozgar Yojana (SGSY).

Development Planning Poverty Alleviation

Poverty and inequality are the two major issues which affect the development of any country. India is no exception to this. Nearly three-fourths of India's 1,128 million people live in rural areas. More than 66 per cent of the country's labour force is engaged in agriculture and allied activities. Around 22 per cent of India's population in 2004-05 were estimated to be poor and living below the poverty line.

Unchecked population growth, shortage of land, fragmentation of land, inequitable distribution of income in the country and growing casual or unemployed labour force have all combined to increase rural poverty. Realising the expedient association of casual wage labour and unemployment with poverty, political parties through their manifestos and planners in their plan documents have repeatedly emphasised the importance of the creation of new avenues of employment for the rural poor with a view to augmenting employment and generate incremental income.

The first three Plans attempted to raise the living standard of the rural people through enhanced growth in agriculture and allied activities. It was the Fourth Plan where poverty alleviation was given due importance in the policy design with a view to achieving growth with equity and social justice. To initiate a direct attack on the poverty, the Government implemented specific poverty removal programmes in the Fifth Five Year Plan (1974-79). This direct attack on poverty was spear-headed by a two-pronged strategy of wage and self-employment

programmes. This Plan identified the main causes of poverty as open unemployment, under-employment and the low resource base of the large number of producers in service and agriculture sectors.

The Sixth Plan was introduced by the Gol for the period 1978-1983 but after two years of its implementation, the same was restructured and reintroduced for the period 1980-1985. This Plan witnessed the strategy of direct attack on the problems of poverty. While the Fifth Plan estimated that 220 million people were under the poverty line at the end of the Fourth Plan periods, the first Sixth Plan (1978-83) estimated that there were as many as 290 million poor in India. The Sixth Plan defined the poverty line on the basis of the recommended nutritional requirements of 2.400 calories per person per day for rural areas and 2,100 calories for the urban areas. The second Sixth Plan (1980-85) hoped that in addition to the specially designed poverty alleviation programmes in rural areas, the growth process would bring down the severity of poverty.

At the beginning of the Sixth Plan, a multiplicity of agencies had been carrying out various rural employment generation and poverty alleviation programmes like **Employment** Guarantee Schemes, Food for Work Programme, Small Farmers Development Agency, Marginal Farmers and Agricultural Labourers, Drought Prone Area Programme, Desert Development Programme and Command Area Development Programme. The Sixth Plan replaced the multiple programmes with an integrated self-employment programme called Integrated Rural Development Programme (IRDP). While IRDP was to transfer the economic and productive assets in the hands of poor for income generation, the NREP aimed at providing wage employment to lessen seasonal and sporadic unemployment in rural areas. The IRDP was introduced in all the 5,011 blocks in the country and was a popular development initiative the country had ever witnessed. However, this programme suffered from various weaknesses like inappropriate selection of family beneficiaries, leakages and malpractices of subsidy amount, non-provision of training, skillbuilding activities. Due to inadequate infrastructure facilities a majority of IRDP beneficiaries did not experience incremental income generation from their self-employment ventures.

The backlog of unemployment and absolute poverty at the end of the Sixth Plan was 9.2 million and 272.7 million, respectively. The GoI estimated that the overall magnitude of employment requirement for the Seventh Plan (1985-90) worked out to be 47.58 million. While the Seventh Plan did intend to pursue the employment and poverty reduction strategy of the Sixth Plan, yet its focus was on upgradation of technology, modernisation and scientific advancement of production processes for enhancing the overall productivity in the economy.

The Eighth Plan which was introduced for a period 1990-95 was withdrawn with the fall of the then ruling government and a new Eighth Plan (1992-97) was introduced with the basic objective of removal of poverty, generation of adequate employment, containing population growth, universalisation of elementary education, provision of safe drinking water and health facility, growth and diversification of agriculture and strengthening of infrastructure like power, transport, communication, irrigation. This Plan witnessed the new economic reform era where the mantra was liberalisation, privatisation and globalisation. This Plan experienced a higher growth rate in output due to the structural reform measures taken by the GoI without commensurate growth rate of employment. The employment growth rate during this period was 2.5 per cent. The Planning Commission had estimated that at the end of 1996-97, the national poverty ratio was 29.2 per cent which was 3.8 per cent lower than the poverty figures estimated for 1993-94 (36.0 per cent). The rural and urban poverty during 1996-97 were 30.6 per cent and 25.6 per cent, respectively.

The Ninth Plan (1997-2002) was introduced with a focus on growth with social justice and equality. Eradication of poverty and provision of basic minimum services were the major concerns for the GoI during the last Plan periods. Thus, the Ninth Plan wanted to address three areas viz., quality of life of the people, productive employment generation and reduction of regional disparity. The Ninth Plan estimated that open employment in 1997 was to the

tune of 7.5 million persons and the labour force was expected to grow at a rate of 2.54 per cent per annum. However, the Plan also noted that the incidence of under-employment among the labour force would be very high. Keeping in view the shrinkage of the wage employment avenues, the Plan envisaged generating self-employment opportunities for rural poor in non-farm sector.

of **Self-employment** Consolidation **Programmes**

The limited impact of plans and programmes in the removal of poverty and employment-generation, has led the GoI to constitute a Committee under the chairmanship of S. R. Hashim to review and rationalise the various centrally sponsored schemes for poverty alleviation and employment generation (Gol, 1997). The Committee noted that there had been a considerable overlap and duplication as far as the implementation of the schemes at the grass-root level was concerned. It was considered necessary to rationalise and simplify the schemes to minimise overlap so as to make them more beneficiary-friendly. As far as IRDP and other self-employment programmes are concerned, the Committee suggested that the government should make a concerted effort to move away from individual beneficiary approach to a group approach. The basic philosophy was to reduce the extent of leakages, improve the viability of the selfemployment projects and provision of sustained employment to the poor.

Acting upon the recommendations of the Hashim Committee, in 1999, the Gol clubbed together employment generation programmes into four broad groups, viz. programmes for (a) self-employment, (b) wage employment, (c) Area Development (like Drought Prone Area Programme and Desert Development Programme), (d) Minimum Needs (like Indira Awas Yojana, Programmes on Sanitation etc.). As far as the self-employment programme is concerned, the IRDP and its allied programmes viz. Development of Women and Children in Rural Areas (DWCRA), Training of Rural Youth for Self-Employment (TRYSEM), Supply of Improved Tool-kits to Rural Artisans (SITRA), Ganga Kalyan Yojana (GKY) and Million Wells Scheme (MWS) were re-structured and revamped. In 1999, a single and holistic microfinance driven self-employment programme, Swarnjayanti Gram Swarozgar Yojana (SGSY) was implemented after subsuming IRDP, DWCRA, SITRA, MWS and GKY. This programme is a holistic programme of micro-enterprises covering all aspects of self-employment which includes organising rural poor into SHGs. SGSY aims at bringing the assisted poor families (Swarozgaris) above the poverty line by ensuring an appreciable level of income sustainable over a period of time. The main tool used to achieve this objective is the organisation of the rural poor into SHGs through the process of social mobilisation, training, capacity building and provision of incomegenerating assets. It builds the self-confidence of the poor through community action, collective decision-making, prioritisation of their needs and resources and improves their collective bargaining power thereby empowering them socially and economically. The implementing mechanism includes the integration of various agencies like District Rural Development Agencies (DRDAs), banks, line departments, Panchayat Raj Institutions (PRIs), non-governmental organisations (NGOs) and other semi-government organisations.

The Tenth Plan (2002-07) tried to ensure effective implementation of the SGSY programme in all the rural areas of the country. This programme is still under implementation in the 11th Plan period (2007-2012) which envisages ensuring an all inclusive growth.

Ten years of SGSY: Where are we?

An analysis of the statistics on the progress of SGSY implementation in India between 1999-2000 and 2007-08 indicates that there are 29.46 lakh SHGs formed under SGSY out of which 81.7 per cent were exclusive women groups (Table 1). A cumulative of 97.4 per cent of total SHGs formed were evaluated and found suitable for financial linkage. Out of the total SHGs evaluated for financial linkage only 24.6 per cent were finally assisted till March 2008 under the programme. During 1999-2008 a cumulative sum of Rs. 15,631.8 crore of credit was mobilised against a subsidy of Rs. 7,630.4 crore. This indicates that the credit subsidy ratio has been 2.04:1 against the goverment norm of at least 3:1. The per capita investment achieved was Rs. 23,041 against targeted Rs. 25,000. Out of the total amount disbursed to the assisted beneficiaries, on an average an SHG got Rs. 2.21 lakh.

To find out the causes of slow progress of SGSY and to study the impact of the self-employment component of the programme, a fieldwork was conducted by the author during October 2006-June 2007 in Jagatsinghapur and Nuapara Districts

Table 1: Summary Statistics: SGSY in India during 1999-2008			
1	2	3	
1	Self-Help Groups formed (Nos)	29,46,743	
2	Women SHGs (per cent)	81.7	
3	SHGs Graded for Financial Linkage (per cent)	97.4	
4	SHGs Assisted to Graded (per cent)	24.6	
5	Total cumulative Funds Available under SGSY (Rs. crore)	1,6010.7	
6	Subsidy Disbursed (Rs. crore)	7630.4	
7	Total Credit Mobilised (Rs. crore)	1,5631.8	
8	Credit Subsidy Ratio	2.04:1	
9	Per capita Investment (in Rs.)	23,041	
10	Credit per SHG assisted (Rs.)	2,21,209.0	

of Orissa and Karnal and Mahendragarh Districts of Haryana through a stratified multi-stage sampling procedure covering 615 beneficiaries. The findings are as follows:

- Morethan 65 percent of beneficiary respondents were earning less than Rs. 50 a day. More than 47 per cent respondents in Haryana and 72 per cent respondents in Orissa earned up to Rs. 50 a day.
- While 36.1 per cent of the total respondents in Harvana and Orissa were landless, there were only 20.3 per cent of beneficiary who had land upto 1 acres. More than 61 per cent of beneficiaries had land upto 3 acres. There were only 2.3 per cent of respondents who had land more than 3 acres.
- While the landless are not necessarily the poorest, the ownership of land is strongly associated with income with more than 74 per cent of the landless population and nearly 82 per cent of the sub-marginal farmers earning less than Rs. 50 a day. Almost 25 per cent of the landless population earn less than Rs. 25 a day. The picture changes noticeably with relatively larger holdings i.e. semi-marginal, marginal and small holdings where the proportion of poor is much lower than landless and sub-marginal category of respondents.
- While 83.9 per cent and 54.0 per cent beneficiaries experienced a positive change in their income and asset values, respectively, the annual growth of income of an SGSY beneficiary was found to be only 9.6 per cent.
- As high as 12.5 per cent beneficiaries in backward districts did not experience a change in their income and 34.45 per cent could not add value to their existing assets. Similarly, in relatively forward districts as many as 59.5 per cent of respondents did not add any value to their total asset during the intervening period and 17.4 per cent did not witness any change in their income.

The availability of finance and of regular inter-loaning have been the most important constraints for respondents of both Orissa and Haryana. Product quality and project appraisal are perceived as important issues for the SHG respondents in Orissa. The other important issues perceived are access to bank, attitude of bank staff towards the beneficiaries in opening savings bank account and disbursing credit and availability of quality input locally for functioning of the self-employment ventures of the beneficiaries.

Conclusion

The sustainable development intervention in the rural areas largely depends on the successful and effective implementation of selfemployment programmes. Since independence the country has formulated various rural selfemployment programmes and has restructured and revamped them envisaging their wider outreach and acceptability. However, the issues, challenges and concerns relating to the implementation of the self-employment programmes have remained more or less the same. The need of the hour is the convergence of all development interventions at the grass-root level so as to enhance necessary infrastructure in the backward regions and ensure capacity building and skill up-gradation. Effective monitoring of self-employment activities by both the government and bank officials would help in sustaining the entrepreneurial ventures in a rural environment. Further, effective implementation of self-employment programmes like SGSY requires identification and narrowing down of problem areas, targeting the identified regions, facilitating basic orientation training on financial and economic management of economic enterprises, ensuring proper coordination amongst field level functionaries establishing proper entrepreneurial culture in a rural set up.

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MONITORING FOR EFFECTIVE **SERVICE DELIVERY**

- The Case of USO Funded Schemes

Archana.G.Gulati

Shri S. Narayan, former finance secretary and economic advisor to the Prime Minister points out that given that the nature of the administrative machinery being used for NREGs has not changed in any way since the 1980's, we cannot really expect service delivery to improve in comparison to our earlier schemes in spite of current efforts at improving monitoring, reporting, evaluation and policing. In this context, it is interesting to study the implementation and monitoring of another ongoing subsidy programme-the Universal Service Obligation Fund (USOF).

e have all heard about late Shri Rajiv Gandhi's famous quote about only Rs 0.15 out of every Rs one of investment in developmental schemes reaching the target beneficiary. With its previous implementation experience of the NREGS, Sarv Shiksha Abhiyan,, Public Distribution System (PDS) etc the

Government is well aware of the importance of avoiding such a pit falls and is thus experimenting with direct cash transfers and ICT based solutions e.g. biometric identification/smart cards to avoid leakage of subsidies and misappropriation of funds/benefits by intermediaries and corrupt functionaries. The creation of a National User



Identification Authority headed by Shri Nandan Nilekani is also aimed at making this easier to achieve. As regards infrastructure creation, Public Private Partnership (PPP) has been widely recognised as the mantra for solving the issue of poor implementation by Government agencies.

In a well argued article, titled, 'The business of public services', Shri Arun Maira has pointed out that neither direct cash transfers nor private sector execution are the answer to the public service problem. His analysis suggests that that the Government must be ultimately responsible and so must regulate effectively. We may involve the private sector in implementation but will also need to involve, educate and empower the public i.e. the community at large and target beneficiaries in particular. Infrastructure, either publically or privately provided must be available and affordable, people must be able to access it i.e. they must have the means. Service provision public or private must be well regulated by the Government and finally the target community must be involved and empowered. In the author's view too, the essence of effective implementation

developmental schemes, whether the implementing agency is public or private, is delivery of desired end results and benefits to the target populations. This requires a three pronged approach whereby the public is made aware about the scheme and implementation details and a feedback mechanism is available to beneficiaries as illustrated by the diagram below:

Effective Monitoring Begins with Clarity of Purpose

To implement a scheme properly and to monitor it effectively, the primary aim of the scheme must be clear. For e.g. in the case of NREGS the primary aim is guaranteeing 100 days of employment by way of unskilled labour to at least one adult member of every poor household that registers for the same in rural areas. An incidental aim is to use this programme to channel this labour towards useful work and assets such as those aimed at water conservation, and irrigation. To this end, the Government is working on ensuring better identification of projects apart from direct transfer of payments through bank /post office



Figure 1: Three Pillars of Effective Implementation

accounts, enhancing transparency of muster rolls and improving grievance redress mechanisms at district level. It is often argued that the labour in NREGS could be put to better use by dove-tailing NREGS with other developmental schemes and by upgrading the skills of labour involved. However, many of the original proponents of the scheme have warned against losing sight of the primary aim by concentrating too much on assets created or trying to address too many issues through the NREGS. The scheme has shown excellent results in states like Tamil Nadu where implementation is better monitored. However as pointed out by Jean Dreze, many important aspects of the scheme embodied in the NREG Act such as unemployment allowance (if work is not provided within 15 days of applying for employment), fines for failure of government functionaries to perform their duties, compensation to workers in case of delayed payments, formulation of grievance redressal mechanisms, have not been properly implemented . It is these issues that must be addressed (before we begin to see NREGs as a panacea for all rural development issues-a viewpoint which itself is highly debatable), if we are to achieve the key aim of NREGS i.e. employment guarantee.

Administrative Trained Dedicated Machinery

In the context of NREGs and other rural development programme several writers have pointed out the importance of putting in place the basic institutions and good governance without which tackling both supply side issues of service provision or demand side issues of paying capacities is impossible. For example, Shri S. Narayan, former finance secretary and economic advisor to the Prime Minister points out that given that the nature of the administrative machinery being used for NREGs has not changed in any way since the 1980's, we cannot really expect service delivery to improve in comparison to our earlier schemes in spite of current efforts at improving monitoring, reporting, evaluation and policing. In this context, it is interesting to study the implementation and monitoring of another

ongoing subsidy programme-the Universal Service Obligation Fund (USOF).

The USOF Programme

The USOF is a statutory, non-lapsable fund from which subsidy may be paid to telecom service providers for providing telecommunication services to people in rural and remote areas at affordable and reasonable prices. Since its inception with effect from 1.4.02, this fund has been used to subsidise schemes towards provision of public and individual access to fixed telephones in rural and remote areas across the country. Also after an amendment to the Rules that govern this fund in 2006, schemes have been implemented for setting up of rural shared mobile infrastructure sites and for rural wire line broadband connectivity, again on a pan India level. The latest initiative of USOF is the scheme for augmentation and creation of a shared optical fibre backbone at sub district level beginning with the state of Assam. Here the capacity created is to be made available to all service providers on a non discriminatory basis at a prescribed discounted leasing rate in relation to the Telecom Regulatory Authority's of India's (TRAI) ceiling rates. USOF has also initiated a pilot project scheme to demonstrate the use of new technologies which would be useful in rural telecommunications and another for encouraging the use of renewable energy in rural telecommunications.

Till date 5.58 lakh Village Public Telephones (VPTs) and 40,690 Rural Community Phones (RCPs) which are public access phones in villages and 66.76 lakh new individual access phones by way of Rural Household Direct Exchange Limes (RDELs) installed after 1.4.05 and about 108 lakh RDEls installed between 1.4.02 and 1.4.05 have been supported from the Fund.

USOF is a Unique Programme

This programme is unique in the sense that there is an all India set up of departmental offices by way of Controller of Communication Accounts Offices (CCA Offices are field offices of the Department of Telecommunications(DOT)) that receive and settle USOF subsidy claims from service providers, supervise and facilitate scheme implementation where required and also perform the vital function of post payment verification of subsidy claims by way of a combination of documentary checks and field inspections. In this manner USOF ensures that leakages are avoided and scheme objectives are actually achieved on ground. In USOF schemes subsidy payments are made only after the actual infrastructure/services are commissioned. Payments are distributed over the Agreement period to ensure effective service delivery. The subsidy claims from TSPs against various activities are based on self certification by service providers as to adherence to terms and conditions of the concerned USOF Agreements. In addition, subsidy claims for end-user oriented services are required to be based on billing records.

The Underlying Principle

It is understood that given various supply side (remoteness, lack of power, roads and other supporting infrastructure) and demand side constraints (low paying capacity, illiteracy and hence lack of perceived demand for ICT services) the provision of rural telecommunications services cannot be left to market forces alone and the Government must step in through programmes like USOF to address the initial viability gap. The emphasis of USOF activities is on incentivizing the public and private telecom operators to provide services in rural areas on an efficient, cost effective and viable business case basis. Thus USOF Administration designs scheme parameters and floats tenders to select the implementing Telecom Service Providers(TSPs). The successful bidders(s) implement the scheme as per the terms and conditions of agreements they enter into with USOF Administration. The infrastructure thus created is owned by the TSPs.

Subsidy support is provided for a finite period after which it is expected that the endeavour would attain commercial sustainability and would

continue to generate revenues for the ownerservice providers. It is logical to expect that this being the case, the recipient of subsidy would in his own interest utilize the same to create robust infrastructure, which would be the bedrock of its commercial operations in the post-subsidy phase. Apart from that, USOF subsidized telecom services are subject to TRAI's Quality of Service (QoS) parameters and associated checks and this is highlighted in USOF Agreements. At times even within the DOT there is a tendency to lose sight of the principle aim of service delivery and instead focus too much on the technical aspects of schemes and the assets created. Though these are definitely constituents of effective and sustained service delivery they are not the central objective of the USOF schemes. In the author's opinion this attitude also runs the danger of introducing rigidities in scheme design whereby there is a lack of flexibility in appreciating alternative and often simpler technologies and routes to achieving the principle aim of rural service delivery. This mindset also overemphasizes verification of the technical aspects of implementation rather than desired end results by way of effective service delivery. coordinate with Centre and State, Civil Service Departments. Having a good administrative set up of trained officers is a huge plus point in USOF's favour.

DOCUMENTARY PHYSICAL AND VERIFICATION

Special Verification Drives & Corrective Measures

Based upon analysis of physical inspection reports from CCA Offices, wherever a persistent and widespread irregularity is suspected, special verification drives are launched whereby detailed and exhaustive authentication is carried out. Thus in 2004-05 a special drive was launched to verify every VPT claimed, against billing records, so as to establish the authenticity of VPT claims. Similarly in 2007-08, around 10 lakh RDELs installed in the last quarter of 2007-08 were verified by adopting a multistage scientifically designed statistical sampling methodology. Further, the claim submission formats themselves are modified to respond to field realities. For e.g. when reports flowed in from CCA offices about RDELs claims being erroneous on account of location of DELs in urban areas, it was decided that claims be submitted against the village wise census codes.

Valuable Impact of Inspections

The physical checks conducted on sample basis by the CCA offices have lead to valuable insights into field level functioning of USOF scheme and necessary corrective measures. For example based on the inspection reports and feedback obtained from CCA Offices, it was realized that there were implementation problems in USOF's VPT schemes.

Monitoring & **Facilitation** during **Construction Phase**

CCA Offices are intensively involved in facilitation of USOF's Mobile Infrastructure Scheme whereby they have been designated to:

- Liaise with State and Local Government authorities to resolve problems such as land acquisition, security and power being faced by service providers
- Coordinate between the infrastructure providers and three service providers implementing these schemes in their service and to highlight pertinent issues which require action by USOF Administration. They hold regular meetings in this regard and a report to USOF HQ in prescribed formats.
- Report in detail on the progress of the scheme by way of achievement of well defined milestones as per prescribed MIS formats

Conclusion

USOF schemes are being effectively monitored in terms of ground level implementation. The arrangement of departmental offices conducting physical inspection and verification through a

combination of tele-calling, documentary checks and physical inspections as a part of the claim settlement process is very effective. Based on their close monitoring CCA Offices are able to withhold and disallow subsidy as per verification. Due care is taken to ensure subsidy payout only against genuine claims and the same verification mechanism also generates valuable feedback which is used by USOF Administration effect vital mid course corrections to schemes or to better design future schemes for effective implementation. Thus though every developmental scheme may not have the USOF advantage of an all India network of trained departmental officers to monitor and verify ground level results, the above discussion does highlight the importance of correctly identifying aims and systematically using verification as a means of effecting improvement in service delivery. For others schemes, similar results can be achieved with the help of NGOs and volunteers who could be ex service men and retired civilian officials. The fundamental aspect of efficient implementation is however correct identification of aims. For example, the NREGS is about guaranteed employment and asset creation is a added benefit. In USOF schemes. provision of affordable telecommunications services for rural India is the main aim and asset creation (especially where ownership rests not with government but with service providers) is an additional benefit. One must not miss the woods for the trees.

Disclaimer

It is hereby stated that the views expressed in this article are purely those of the author and do not in any way reflect the Government of India's Policy or stand on the Subject.

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REFORMS AGENDA FOR NREGS

G.Srinivasan

With the Government committed to transform the rural landscape with sweeping changes through guaranteed employment to rural people by extending a supplementary wage employment on demand, the NREGS will definitely come under scanner with its warts and all

he single most significant social policy scheme that goes a long way in addressing the chronic unemployment problem in the rural India is undoubtedly the National Rural Employment Guarantee scheme (NREGS). Launched in February 2, 2006, the National Rural Employment Guarantee Act has been extended to all the rural areas in the country in a phased manner. Since its advent, as many as 13.52 crore households have been provided employment and 632.11 crore mandays generated by spending a humongous sum of Rs 70,499.72 crore, the Minister of State for Rural Development, Mr. P.J.Aditya told Rajya Sabha in a written answer on November 24.



It is not that everything is honky-dory with the scheme since as many as 1010 complaints pertaining to irregularities in the implementation of the scheme have been received by the executing Ministry of Rural Development itself. The grouses mainly relate to delayed payment of wages, instances of use of funds for non-permissible activities, incorrect accounting of expenditure, use of machinery, nonissuance of job cards and ineligible persons provided employment under the Act. It is in this regard that the Ministry of Rural Development has issued orders on August 7 this year, directing all State governments to set up the office of Ombudsman at district level for resolving the problems and grievances in a timebound fashion. The Ministry has also accorded utmost urgency to the organization of Social Audit by the Gram Panchayats.

Being one of the largest social safety net providing gainful employment to 4.51 crore rural households in 2008-09 and providing employment to more than 3 crore households in the current fiscal year, the United Progressive Alliance (UPA) Government introduced an amendment bill to the main Act, called the National Rural Employment Guarantee (Amendment) Bill in Parliament on November 26. The Amendment seeks to rechristen the NREGS as the Mahatma Gandhi National Rural Employment Guarantee Act. While introducing the Bill in the Lok Sabha the Union Minister of Rural Development Dr.C.P.Joshi aptly pointed out from the statement of objects and reasons that the provisions of the Act of public accountability, through social audit and Right to Information will get central focus with the association of Mahatma Gandhi's name, reflecting the father of nation's ideals of the sovereignty of the public in a democracy. Besides, the Act is premised on rural households volunteering to do unskilled manual labor and the association of Mahatma Gandhi's name with it highlights the dignity of manual labour.

With the Government committed transform the rural landscape with sweeping changes through guaranteed employment to rural people by extending a supplementary wage employment on demand, the NREGS will definitely come under scanner with its warts and all. Lest the criticisms should become so negative to the extent of obliterating the tangible benefits being bestowed on rural people eking out subsistence existence through this laudable scheme, reforms of the NREGS for building a better rural India are the need of the hour. A National Consortium of Civil Society Organisations(CSOs) for NREGA with 51 CSO partners working across 58 blocks of 44 most backward districts in 11 States of the country has come out with its maiden annual report, piecing together learning from the ground level experience of the past two years.

Planning Commission, Member, Dr. Mihir Shah in a preface to the report stated that the broader goal of the consortium is to reinforce and underpin Panchayati Raj Institutions (PRIs) and thereby Indian democracy at the grass roots, to generate greater awareness and engender deeper capacities among NREGA stakeholders, as also to carry forward an agenda of NREGA reforms. This, the consortium partners believe is indispensable to the realization of the enormous unrealized potential of this revolutionary Act. Citing data from the Rural Labour Enquiry of the National Sample Survey that a very high proportion of agricultural labour households in the country actually owns land, Dr. Shah said these legions of small and marginal farmers have been faced with no option but to take up job from the NREGS because the productivity of their own farms is no longer enough to make ends meet. Here, NREGA will become really powerful when it helps rebuild this decimated productivity of small farms. Public investment in the programme spurs private investment by small farmers and accords them a chance to return to full-time farming. Dr Shah

contends that work of consortium partners in the poorest part of the country shows how earthen dams on common land have recharged wells of those poor farmers who earlier worked as labourers to build these dams. These farmers are now busy making a series of investments to improve their own farms.

The consortium report suggests that the central and key emphasis now has to be on productivity enhancing, high quality works under NREGA. Even as the gram panchayats is the fulcrum and mainstay to

implement the scheme, it woefully lacks the human resources and technical skillets to discharge what it is expected to carry out. The lack of a fulltime dedicated support structure for **NREGA** has been observed by several analyses of the implementation of the Act on the ground. Stating that decentralization has to be deepened further beyond the current district-blockgram pantheist model, the report suggests this could be done by introducing

one more layer between the block and gram pantheist. On an average there are about 90 villages per block in the country and hence each block can be divided into three parts, each to be called the Village Development Cluster (Gram Vikas Sankul, GVS), comprising 30 villages each or about 15 gram panchayats. This middle tier GVs will be the cuttingedge level of NREGA implementation between the gram panchayats and the block panchayats. Such a desirable layer would enable appropriate deployment of requisite personnel who would resolve the crucial questions of proper planning, time-bound sanctions and releases, timely measurements and valuation

of work and powerful social mobilization and social audit.

In order to render the structure of NREGA implementation efficacious, a fully dedicated staffing structure needs to be deployed in the GVs, drawing talent from the open market through a rigorous selection process. These officers must be recruited on a contract for a span not exceeding three years and their performance will be strictly reviewed and they will be answerable to the block panchayat.

> favours the creation of a National Authority for NREGA as an autonomous body within the Ministry Rural Development discharging for of the most important functions to make NREGA effective. They include, deploying information technology (IT) and human resources to make NREGA implementation effective, social monitoring and evaluation of NREGA implementation

and grievance redressal.

Finally, the report also

three

more

audit,

The consortium report suggests that the central and key emphasis now has to be on productivity enhancing, high quality works under NREGA. Even as the gram panchayats is the fulcrum and mainstay to implement the scheme, it woefully lacks the human resources and technical skillets to discharge what it is expected to carry out

> In fine, the NREGA is a milestone legislation that is bound to bring a qualitative change in the morose living standards of millions rural people, both men and women so that they would feel economically emancipated. There might be teething troubles before the fruits of the Act are fully borne by the beneficiaries but the reforms agenda outlined by many a non-governmental association would definitely help in hammering out a durable solution in the foreseeable future for the effective functioning of the scheme

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SUSTAINABLE AGRICULTURAL INITIATIVES OF THE GOVERNMENT **RASHTRIYA KRISHI VIKAS YOJANA**

his year's insufficient Monsoon has forced people to pay more attention to agriculture and food security, but these have already been a very high priority for the Government. While the focus presently is on saving the standing crops and trying to maximize the production of winter crops, long-term strategies remain very important. These strategies have been evolved after a great deal of discussions, consultations and planning over the last five years and are aimed at giving a strong base to Indian agriculture.

The Government has launched several major schemes who will have long-term impact. These schemes are bringing in more investment, giving more incentives to States to give agriculture a high priority in their budget, bridging the yield gap in major food crops, promoting use of new farming technologies, improving soil health, giving a fillip to farming activities other than foodgrain production.



Rashtriya Krishi Vikas Yojana

To provide benefits to the farmer community, the Ministry of Agriculture has launched the Rashtriya Krishi Vikas Yojana (RKVY) during the Financial Year 2007-08 to encourage the States to invest more towards agriculture and allied sectors so as to achieve 4% annual growth. This would help in increasing the production and productivity. The Ministry has envisaged an outlay of Rs.25,000/- crore for the 11th Five Year Plan.

The scheme requires the States to prepare District and State Agriculture Plans for creation of such infrastructure, which are essential to catalyse the existing production scenario for achieving higher production. The scheme provides adequate flexibility and autonomy to the State Governments in selection, planning and implementation of project under this new flagship scheme. scheme provides funds to the States as 100% grants. Some of the major activities for which the scheme is available are integrated development of food crops, agriculture mechanization, soil health and productivity, horticulture, animal husbandry, dairying & Fisheries and development of market infrastructure.

The new initiative has elicited an enthusiastic response from the States. Many States have prepared their District Agricultural Plan and others are in the process of preparing the same. Funds to the tune of Rs. 4133.69 crore have been released to the States/UTs during 2007-08 & 2008-09 under the Scheme. The States have taken up projects relating to minor/micro irrigation, watersheds, strengthening of seed farms, horticulture, setting up of soil/seed/ fertilizer testing laboratories, farm mechanization, animal husbandry, dairying and fisheries. Under the scheme an amount of Rs. 4100.00 crore is expected to be released to the State Governments and Union Territory Administrations during 2009-10.

National Food Security Mission

Understanding the importance of food security, the National Development Council in its 53rd meeting held on 29th May, 2007 adopted a resolution to launch Food Security Mission comprising of rice, wheat and pulses to increase the production of rice by 10 million tons, wheat by 8 million tons and pulses by 2 million tons by the end of Eleventh Plan. Accordingly National Food Security Mission has been launched since Rabi 2007 with a financial outlay of Rs. 4882 crore (Eleventh plan period). NFSM is under implementation in 312 districts of 17 states viz NFSM-Rice in 136 districts of 14 states; NFSM-Wheat in 141 districts of 9 states and NFSM-Pulses in 171 districts of 14 states. It covers about 13 million hectares of wheat, 20 million hectares of rice and 85% of pulses areas. Mission equips the farmers with improved technologies i.e., seed, micronutrients, soil amendments, farm machinery, Integrated Pest Management and resource conservation technologies, demonstrations and training of farmers on the pattern of farmers' field school along with effective monitoring and better project management.

Some of the major achievements with this scheme have been-:

- 2.35 lakh demonstrations of improved varieties of rice and wheat, SRI of rice and hybrid rice conducted.
- 47.83 lakh quintals of high yielding variety/ hybrid seed of rice, wheat and pulses distributed.
- Nearly 12.0 lakh hectares of area treated with soil ameliorants (gypsum/lime/micronutrients) to restore soil fertility.
- Nearly 9.7 lakh hactares of farm land treated under Integrated Pest Management.
- Nearly 4.3 lakh farm implements distributed.
- Capacity building of farmers through 14535 Farmers Field Schools.
- 55,000 farmers have benefited through resource conservation technologies.
- Production of 77.63 million tonnes of wheat; nearly 1.82 tonnes more than 2006-07.

- Production of 99.37 million tonnes of rice during 2008-09 (3rd advance estimates); nearly 2.7 million tonnes more than 2007-08.
- Pulses' productivity increased over 2007-08 in NFSM districts: TN 19.%; Rajasthan 100%; Punjab 18%; Haryana 66%; Andhra Pradesh 20%.
- Pulses' productivity increased over 2006-07 in NFSM districts: Rajasthan 65%; Punjab 3%; Harvana 0.25%; Andhra Pradesh 30%.

National Horticulture Mission

To promote holistic growth of the horticulture sector through area based regionally differentiated strategies, the National Horticulture Mission (NHM) was launched in the country, during the Xth Plan with effect from 2005-06. NHM ensures development of horticulture sector duly ensuring horizontal and vertical linkages, with the active participation of all the stake-holders. Under the Mission, 352 districts in all the States and two Union Territories (Andaman & Nicobar Islands and Lakshadweep) are covered except eight North Eastern States, Jammu & Kashmir, Himachal Pradesh and Uttarakhand, which are covered under the Technology Mission for Integrated Development of Horticulture in the North Eastern States (TMNE).

The scheme has enhanced horticulture production, improved nutritional security and income support to farm households and others; has established convergence and synergy among multiple on-going and planned programmes for horticulture development. The scheme has also helped in generating employment for skilled and unskilled persons, especially unemployed youth. The mission envisages an end-to-end approach covering production, post harvest management, processing and marketing to assure appropriate returns to growers/producers and to double horticulture production by 2011-12 with a production of 300 million tonnes through a targeted achievement of 6% growth in horticulture.

An amount of Rs. 3503.11 crore has been released for implementation of the Scheme since its inception till date, against the allocation of Rs. 3880.00 crore. An outlay of Rs. 1100 crore is earmarked for implementation of the scheme during 2009-10. The salient achievements under the Mission are coverage of an additional area of 12.54 lakh hactares of identified horticulture crops in 87 crop clusters, besides rejuvenation of 2.06 lakh hactares of senile plantations, establishment of 1935 nurseries for production of quality planting materials, adoption of organic farming in an area of 1.11 lakh hectares besides establishment of 66,019 units of vermicompost units for promotion of organic farming in horticulture, adoption of IPM practices in an area of 5.73 lakh hactares besides establishment of 294 IPM/ INM infrastructure facilities such as Bio-control labs, plant health clinics, leaf tissue analysis labs, disease forecasting units, creation of 13,091 community water tanks. Training of 4.24 lakh farmers within the concerned States and 57,000 farmers outside their States through exposure visits and training for enhancing capacity building on horticulture. Assistance has also been provided for establishment of 1109 pack houses, 109 cold storages, 23 refer vans besides creation of 35 whole-sale markets, 174 rural markets, to help in proper handling and marketing of horticulture produce.

The impact of Mission has been from the positive trend in increasing area under fruits to 4.964 million hactares with a production of 45.29 million tonnes, while the area under vegetables is 6.756 million hactares with a production of 101.43 million tonnes. India is the second largest producer of fruits and vegetables in the world next to China. The horticulture sector contributes around 28.5% of agriculture.

Support to State Extension Programmes for Extension Reforms

The scheme was launched in May, 2005 with an objective to support State Governments efforts to revitalize their extension system. The scheme promotes a decentralized farmer-driven and farmer-accountable extension system through a new institutional arrangement for technology dissemination in the form of an Agriculture

Technology Management Agency (ATMA) at district level. The funding support to the States is provided on the basis of State Extension Work Plans (SEWPs), which are prepared through a bottom up planning process starting at the block level and consistent with training and extension needs emerging from Strategic Research Extension Plans (SREPs).

The Cafeteria of activities include upgradation of State Level Extension Training Institutions, HRD of extension functionaries, agricultural exhibitions/ melas, agricultural fairs, field days, 'kisan goshthies', mobilization of farmers groups, training/exposure visits, field demonstrations, information and dissemination through print and electronic media, setting up of 'Farm Schools', Farmer-Scientist Interactions, assessment, refinement, validations and adoption of frontline technologies, extension activities through agri-entrepreneurs and PG Diploma in Agricultural Extension Management, setting up of community radio stations, rewards and incentives.

The coverage under the scheme has been progressively increasing - today ATMAs have been established in 586 districts of 29 States and 2 UTs. Total of 7978 Farm Schools have so far been set up under this Scheme. Over 91 lakh farmers including 17.97 lakh women farmers have been benefited under the programme. A sum of Rs. 440.99 crore have been released to the States/ UTs under this Scheme in the last four years.

Changing agriculture in a way that makes it more sustainable is a big challenge. To create a flourishing sustainable agricultural system that meets the country's needs and those of future generations, the Ministry is working towards evolving innovative government policies that are grounded in both the science and economics of agriculture; research to develop new technologies, as well as extension services to update farmers about new developments that could help them through transition to sustainable agriculture.

(Inputs from the Ministry of Agriculture)

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60 YEARS OF REPUBLIC

TRANSHUMANT PASTORALISTS **FACE A TOUGH TIME**

Rajshekhar Pant

nvironmentalists may say that nomadic pastoralism require the support of the local policies to continue within carrying capacity limits since they are based on efficient use of seasonally abundant resources in marginal environments without degeneration. However, quite ironically a combination of policies of the state government and conservation managers of Nandadevi Biosphere Reserve (NDBR) have brought to an end transhumant pastoralism in 6 out of a total of 10 villages of Marcha subcommunity of Bhotiya tribals in the Chamoli district of Uttarakhand.

Transhumant pastoralism entails seasonal migration with entire household, cattle and small ruminants between two different settlements -one each in higher mountain reaches for summers and in lower valleys for winters. Following the implementation in 1960 of the UP Zamindari Abolition Act of 1947 the transhumant population was left without any land in their winter settlements. Summer migration to Tibet got knocked off following the obliteration of Tibet trade after Chinese debacle of 1962 and to add further to their woes the formation of NDBR, the first biosphere of the Himalayas and the second of the country in 1988 snatched nine out of a total of 15 pastures from them reducing the grazing land from 6180 ha to 2433ha.

Around 1500 souls of 6 villages namely Reni, Peng, Lata, Phagati, Loung, and Tolma



gradually adopted a sedentary life style since climatic conditions permitted it. However, for their counterparts numbering around 1000, spread over the four villages Dronagiri, Kaga, Garpak and Malari the only alternative left was to camp in Maithana, Pursari, Ghat and Birahi -villages inhabited by the non-tribals and share the already dwindling resource base. Working among these tribals Dr RK Maikhuri of the GB Pant Institute of Himalayan Environment and Development noticed the number of sheep, goats

etc getting reduced in the region by 35 to 15 percent per annum. "Yak and Yak breeds disappeared have from here altogether and may be seen now in govt farms alone" he says.

It is interesting to note that due to climatic constraints hardly three crops two vears can be cultivated here villages having

sedentary population and in the villages with a tradition of transhumance a single summer crop is the only consolation. Surprisingly hunting for meat has never been an accepted practice here. Sheep, goat and even Yak at times have been the main source of protein for the local populace.

With the population of buffer zone rising by 37% per decade subsequent rise in the demand for animal product is hardly being met here. This has resulted in steady drop in per capita consumption of protein. The allegedly poor quality and quantity of fodder in lower valleys, report shepherds, are

further resulting not only into the poor quality of wool but also into a sharp rise in the mortality rate of sheep and goats. Livestock depredation by wildlife and competition for resources between wildlife and traditional pastoralism is also a big problem in the reserve area. "However, the transhumant pastoralists have few options," says Dr Maikhuri, "except continuing it with reduced stocking density. As due to climatic constraints they can't settle permanently in their summer homes." Dr Maikhuri is of the opinion that the future

Following the implementation in 1960 of the UP Zamindari Abolition Act of 1947 the transhumant population was left without any land in their winter settlements.

"Yak and Yak breeds have disappeared from here altogether and may be seen now in govt farms alone"

Transhumant Pastoralists depends on the way they will manage their stay and livestock grazing in winter outside the Biosphere Reserve, "where they facing conflicts with settled inhabitants." He further opines that small ruminant based production developed system after curtailment of

Trans Himalayan trade need to be diversified to provide opportunities for people to operate traditional woolen handlooms, grow organic produce and cultivate medicinal plants. "Revitalizing the production system," he adds, "and reducing unproductive animals among sedentary population would provide opportunities to continue the sustainable livelihood of transhumant pastoralists in buffer zone villages of the NDBR -A world Heritage Site.

(The author is Freelance Writer on Environmental Issues, based in Nainital, Uttarakhand -263136 email: pant.rajshekhar@amail.com)

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WATERSHED MANAGEMENT PROGRAMMES

Dr. C. P. Reddy

India today has about 18% of the world's population and 15% of livestock population to be supported from only 2% of the world's geographical area and 1.5% of forest and pasture land. It is clear that the productivity of land has to be developed to deal with the disparity. Dr. C. P. Reddy (Asst. Commissioner, DoLR) explains the various Watershed Programmes undertaken by the Government to meet the demands.

atershed management is the process of guiding and organizing the use of land and other resources in a watershed to provide desired goods and services without adversely affecting soil and water resources. Management of a watershed thus entails the rational utilization of land and water resources for optimum production but with minimum hazard to natural and human resources, with due recognition of the interrelationships among land use, soil and water and the linkages between uplands and downstream areas.

Each project under the programme is a micro level effort to achieve this objective by treating the underproductive or unproductive land and taking up allied activities for the benefit of the landless. The programmes adopt a common strategy of multiresource management involving all stakeholders within the watershed who, together as a group, co-operatively identify the resource issues and concerns of the watershed as well as develop and implement a watershed plan with solutions that are environmentally, socially and economically sustainable. To accelerate the pace of development of wastelands/degraded lands the Government had set up the National Wastelands Development Board in 1985 under the Ministry of Environment & Forests. Later a separate Department of Wastelands Development in the Ministry of Rural Development and Poverty Alleviation was created in 1992 and the National Wastelands Development Board was transferred to it. In April 1999, Department of Wastelands Development was renamed as the Department of Land Resources to

act as the nodal for agency land resource management. Consequently, all land-based development programmes and the Land Reforms Division were brought under this Department.

1994, In **Technical** Committee Land in million ha Cultivable wanteland Area under non-agricultural use Fallow lands Burren and uncultivable Rainfed Permanent partities and growing lands | Intervied Miccellaneous tree crops and groves

Land Use position in India:

under the Chairmanship of Professor C.H. Hanumantha Rao was appointed to appraise the impact of DPAP / DDP and suggest measures for improvement. The committee recommended a common set of operational guidelines and expenditure norms for the three programmes of Ministry of Rural Development (MoRD). Accordingly, the Guidelines for Watershed Development were framed and brought into force from 1st April 1995. Since then, DPAP, DDP and IWDP are being implemented on watershed basis.

The Watershed Guidelines of 1995 were revised by MoRD in 2001 to make them more focused, transparent and suitable to local requirements. The revised guidelines, 2001 provided for a greater role of Panchayati Raj Institutions, Exit Protocol and provision for availing the credit facility from Financial Institutions to ensure higher value addition to the interventions. The Guidelines for these programmes were further revised with effect from 1.4.2003, and renamed as Hariyali Guidelines.

Impact Assessment of Watershed Programmes A study titled "Comprehensive Assessment of Watershed Programmes in India" had been assigned to International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad to critically assess the impact of various Watershed Development Programmes in India.

The three key Watershed Programmes are detailed below:

Drought Prone Areas Programme (DPAP)

The basic objective of the programme is to minimize the adverse impact of drought on the production of crops, livestock and productivity of land, water and human resources thereby ultimately leading to the drought proofing of the affected areas. The objectives are being addressed by taking up development works through watershed approach for land development, water resource development and afforestation/pasture development.





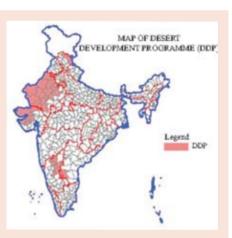




Desert Development Programme (DDP)

The major objectives of the programme are:

- To mitigate the adverse effects of desertifi cation and adverse climatic conditions on crops, human and livestock population and combating desertifi cation.
- To restore ecological balance by harnessing, conserving and developing natural resources i.e. land, water, vegetative cover and raising land productivity.
- To implement development works through the watershed approach, for land development, water resources development and afforestation/pasture development.



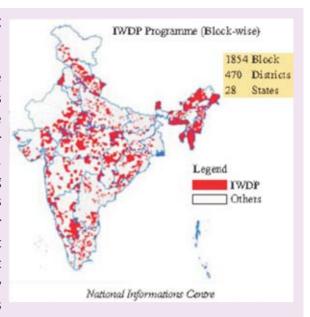






Integrated Development Wastelands Programme (IWDP)

Wastelands are "degraded lands which can be brought under vegetative cover with reasonable efforts and which are currently under utilized. It is also the land which is deteriorating for lack of appropriate water and soil management or on account of natural causes". DoLR in collaboration with National Remote Sensing Agency (NRSA) carried out mapping of wastelands across India, using the one-time IRS data (of the year 2003). The result of this exercise has been brought out as "Wastelands Atlas of India-2005". As per their latest estimates, the total extent of wastelands in the country stands at 55. 27 m.ha. as compared to 63.85 m.ha. (as per Wasteland Atlas 2000).



Objectives

- Developing wastelands/degraded lands on watershed basis, keeping in view the capability of land, site conditions and local needs.
- Promoting the overall economic development and improving the socio-economic condition of the poor and disadvantaged sections inhabiting the programme areas.
- Restoring ecological balance by harnessing, conserving and developing natural resources, i.e. land, water, vegetative cover.
- Employment generation, poverty alleviation, community empowerment and development of human and other economic resources of the village.

The study (in 2008) indicated the following:

- Watershed programme has performed well with a mean benefit cost ratio of two which indicates that investment in watershed programme is economically viable and substantially beneficial.
- The mean internal rate of return of 27.4% indicates that watershed projects are able to meet their initial costs and generate substantial economic benefi ts and justify the investment as income levels were raised within the target domains.
- (iii) The alleviation of rural poverty and reduction of disparities among the rural households is an important achievement under the watershed programme as the average additional annual employment generation in the watershed area is about 154 person days.
- (iv) The objective of conserving soil and water has also been well achieved as it was noted that on an average, 38 ha. m. additional water storage capacity was created in a 500 ha. watershed as a result of watershed programme. The irrigated area increased by 52% and the cropping intensity increased by 35.5%.

Recent Policy Modifications

Wasteland, Watershed and Dryland developments are key action points of the Government. Planning Commission and National Rainfed Area Authority framed Common Guidelines, 2008 for watershed programmes for all Ministries/Departments based on the Parthasarathy Committee report, other Committee's observations and past experiences. The provisions in the Common Guidelines and the observations of the Parthasarthy Committee have necessitated modifi cations in the watershed schemes of the DoLR. Accordingly:

DPAP + DDP + IWDP => integrated and consolidated IWMP (Integrated Water **Management Programme).**

This consolidation is for optimum use of resources, sustainable outcomes and integrated planning. The scheme has been approved by the Government on 26th February 2009. The salient features of IWMP in comparison with existing schemes are as below:

S.N.	Contents	Existing provisions (Hariyali 2003)	Proposed provisions under IWMP
1	Programmes	Three programmes IWDP, DPAP, DDP	Single Programme IWMP
2	Project Area	One micro-watershed (500 ha average size)	A cluster of micro-watersheds (1000 ha to 5000 ha)
3	Selection of watershed irrigation area project area	Project area did not exclude assured	Assured irrigation area excluded from
4	Cost per ha.	Rs. 6,000	Rs. 12,000 for plains and Rs.15,000 for difficult and hilly areas.
5	Central Share and State Share	75 : 25 for DPAP and DDP 92:8 for IWDP	90 : 10 for IWMP
6	Project Period	5 years	4 to 7 years
7	Number of Installments	5 (15%, 30%, 30%, 15%, 10%)	3 (20%, 50%, 30%)
8	Fund Allocation	Training & Community Mobilization 5% Administration 10% Works 85%	Institution & Capacity building 5% Mon. & Eval. 2% Admn. 10% Works & Entry Point Activities 78% Consolidation 5%
9	Institutional Support	Weak institutional arrangements	Dedicated institutional structures at Central, State, District, Project and Village level
11	Planning	No separate component	1% for DPR Preparation with scientific inputs
12	Monitoring & Evaluation	No separate component Mid-term & fi nal evaluation	2% of project cost. Evaluation after every phase of the project will be done and release of installment is based on the satisfactory report of the evaluation.
13	Sustainability	Weak mechanism with Watershed Development Fund (WDF) as a tool component as a tool	Consolidation Phase with WDF and livelihood
14.	Livelihood	Not included	Included as a component

(Courtesy: Grameen Bharat)



60 YEARS OF REPUBLIC

HILLY REGIONS IN PERIL—Where has all the Water Gone?

Dinesh Pant

estling in the Himalayas, is the pristine region of lakes, rivers, mountains and valleys, the state of Uttarakhand. This land which even two decades ago was full of water sources emanating from the Himalayan highs as well as its own sources on land and underground is today facing a serious water problem.

The ground water level is deteriorating day by day. Water resources, rivers and ponds are drying up. Rivers, glaciers and water sources like ponds all reflect this state of crises. During what was the 'rainy season', rain had but abandoned the sky of Uttarakhand. Wells, which once used to be bountiful, satisfying the thirst of the people, are dry and government taps have been long out of use.

People of land have been reduced to a dependency on government water tankers for a bucket or two of water for their basic needs.

A water problem does not exist in isolation and in this case it does not seem to be merely a local issue. One needs to step back and look at the bigger picture. It is the Himalayas, from where rivers like Ganges, Yamuna and other important rivers originate. Does this mean that the fragile and yet formidable eco-system of the Himalayas is faced with a threat, of which water shortage is a symptom? Has unplanned development, unbridled urbanization, indiscriminate felling of forests somehow come together to disturb the flow of centuries?



In 70% of mountainous areas, people struggle for water on a daily basis. In the low lying areas also there is a problem. In these areas, digging a few feet into the ground used to lead to water. Not now though, the levels have dropped. In low lying areas one has to dig more than 20 feet under the earth to reach water. Mahesh Pandey, a social worker is worried. "the level of Yamuna, Ganges, Bhagirathi, Alaknanda, Ram Ganga and the Kosi have been regularly declining and many tributaries have become into drains"

Locals grumble that most of pipelines and

hand pumps are not in a working condition. But Pandey is looking at a deeper cause. When water resources themselves are drying out, there is a little scope for the government departments to do anything to improve the pipeline networks and functioning. Unless of course they address the fundamental issue for which long-term planning and committed resources are essential.

6,63,200 lakh litre water is harvested by rain but only 3% of it is put to use. This is a colossal waste. The Report of Management Department corroborates the perception of a disaster in the making. 75 sources have perished in Doon-Hrishikesh, Vikas Nagar – Kalsiand Chakarta – Tyuni regions.

But the administration is not

looking at that at all. The figures show that 6,63,200 lakh litre water is harvested by rain but only 3% of it is put to use. This is a colossal waste. The Report of Management Department corroborates the perception of a disaster in the making. It lists out the number of dried out water resources in Uttarakhand, area wise. According to this report 75 sources have perished in Doon-Hrishikesh, Vikas Nagar - Kalsiand Chakarta – Tyuni regions. In Champavat 40 sources while in Kanda, and Kafligair, 35 sources are now nonexistent. In Gurud and Kapkot 25 sources have dried up while in Berinag, the number is a staggering 91. The figures across the entire state show more than 550 water sources drying up.

A disturbing picture but then it need not be so bleak. Uttarakhand, has a long history of creative use of water sources. Community water reservoirs used to dot the entire region. Particularly in the Kumaon region, 'Naulas' built on oceanic water traditions by kings in the past still exist and quench the thirst of the people. Apart from Naulas, Dhara, Mangra, Taal, Chaal, Babdi and Kundi have been effective ways of water management. The authorities would do well to take a cue from this tradition. The impact of Government's schemes like Jal Sansthan, Jal Nigam, and Swajal have has been negative, directly interfering with traditional ways, adversely affecting techniques which had a proven history of efficiency. Cemented

> reservoirs promoted by them virtually killed the traditional technique

> There are also simple practices and practical steps which can be taken at a local level, which need to be promoted, Mukul Bhatt. a social worker involved with water supply in villages, advocates water harvesting. He says, "Every household must have a tank. Government should encourage such people. Apart from that, small

ponds should be built

Of late, there has been some effort to raise awareness on traditional water resources by government agencies, these are but a drop in the ocean, negligible in the light of the gigantic water shortage problem and the crises hovering in the Himalayan region. Much like the way our ancient rulers built and maintained water reserves and nurtured practices, the present government need to rise to the occasion. Only then can future generations be saved from the scarcity of water and the spectre of an environmental crises and live out these lines from a poem "They, but obvious, will be thirsty; a river for them, also, should be left"

(Courtesy Charkha features)



60 YEARS OF REPUBLIC

TURMERIC - THE GOLDEN SPICE OF LIFE

R.Srinivasan

urmeric is known as the Golden Spice of life and is one of the most essential spices used as an important ingredient in culinary all over the world. India is the World's largest producer of turmeric accounts for 90% of the world's total production. Turmeric is the second largest foreign exchange earner among Indian spices. consumes nearly 80 % of turmeric. Turmeric is a tropical plant domestically cultivated in India since ancient time. As early as 3000 B.C. the turmeric plants were cultivated by Harappan civilization.

Turmeric belongs to ginger family "Zingiberacease".

Turmeric is an important spice made from grinding the roots of the Curcuma longa plant, also called curcumin.It is a prime ingredient in curry powder and figures heavily in Asian countries for many and rice preparation and other dishes. It also used to medically throughout Asia, to treat stomach, cancer and liver ailments, blood purifier. It is antiseptic and healing properties have both preventive and curative prosperities for pimples serious adolescence problem of the skin.





Nutritional Value of Turmeric

Nutritional Value	Value per 100 gram
Moisture	13.100
Protein	6.300
Fat	5.100
Minerals	3.500
Fibre	2.600
Carbohydrates	69.400
Energy	349.000 K cal
Calcium	150.000
Phosphorus	282.000
Iron	67.800

Percentages are relative to US recommendations for adults:

Source: USDA Nutrient data base.

Two teaspoon of turmeric contains

Nutritional Value	Value per 100 gram
Iron	1. 88 milligrams
Vitamin B:	0.08 milligrams
Dietary fiber	0.96 grams
Potassium	114.48 milligrams
Manganese	0.36 grams

Major Importers of Turmeric

- Japan
- Sri Lanka
- Iran
- **United States Eastern countries**
- **United Kingdom**
- Middle Eastern countries
- North African countries
- Ethiopia

Conclusion

Since turmeric and its by products have medicinal value, if occupies a significant role in the food habits of the people in the world. The Turmeric production in India increased from 719.6 Million Tonnes to 830.2 Million Tonnes from 2000-2001 to 2005-2006. However, the Area of production of Turmeric India decreased from 187.4 thousand hectares 2000-01 to 174.6 thousand hectares 2005-06.

"Turmeric – Not only food but also medicine"

(The author is Lecturer in Commerce, Sengunthar arts and Science College, Tiruchengode, 637 205 email: srini.mphil@gmail.com)



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