

## Restoring farmers' faith in farming

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It will be an understatement if I say that our country is facing a serious agrarian crisis. According to a recent survey by NSSO, 40% farmers would like to quit farming if they have another option. A recent report (May 2006) of the Punjab State Farmers' Commission headed by Dr. G.S. Kalkat stated that "Punjab Agriculture, which is based largely on wheat, rice and cotton, seems to have almost touched the plateau with the available technology. Water table is going down at the rate of 74 cm per year (2004-05). Sixty six per cent of blocks have gone dark. The agriculture of Punjab has progressed, but farmers have become poorer. The current agricultural system in Punjab has become unsustainable".

The implications of this situation for national food security are serious. During 2004-05, Punjab contributed 9.2 million tonnes of wheat and 9.1 million tonnes of rice to the central pool, which constitute 55 and 37% of the total food grain procurement in India. Our population is still growing at

over 2% and the rate of growth in food production is tending to fall below this population growth rate. The growth rate in non-farm employment is poor, with the result that there is enormous pressure of population on land. It is in this context that the Prime Minister of India, Dr. Manmohan Singh posed the following challenge to scientists in his address at the Dr. B.P. Pal Centenary Celebration Symposium organized by The Energy and Resources Institute (TERI) on 27 May 2006.

"There are no new, big ideas on how we can extend the benefits of modern science and technology effectively to our farmers and on new pathways to revitalize the farm sector".

We should seriously ponder over the above statement. It is in this context that following suggestions have been made by the National Commission on Farmers in their 3<sup>rd</sup> and 4<sup>th</sup> Reports presented to the Minister of Agriculture in December 2005 and April 2006, on methods of revitalizing our agriculture during the agriculture year 2006-07.

### *Situation facing our farmers*

Farming is both a way of life and the principal means of livelihood for 65% of India's population of 110 crores. Our farm population is increasing annually by 1.84%. The average farm size is becoming smaller each year and the cost-risk-return structure of farming is becoming adverse, with the result that farmers are getting increasingly indebted. Marketing infrastructure is generally poor, particularly in perishable commodities. The gap between what the primary producer of vegetables and fruits gets and what the urban consumer pays is high.

The social prestige and status accorded to farmers are also low. Farmers seldom receive recognition through Padma Awards on Republic Day – an index of the low recognition given to the contributions of 650 million farm women and men not only to food and livelihood security, but also to national sovereignty. Lal Bahadur Shastri's slogan "*Jai Kishan*" is yet to be converted into public policies which recognize the pivotal role of farming communities in national well-being and security.

Policies are needed for making the sub-marginal, marginal and small farmers economically viable and environmentally sustainable. Well defined guidelines are needed for assisting such families with assured and remunerative marketing opportunities, particularly in the case of perishable commodities and 'orphan' crops like a wide range of pulses, millets, tubers, and oilseeds.

Technology has been a major factor in the rich-poor divide until now. We should now enlist technology as an ally in the movement for gender and social equity. This will call for a pro-poor, pro-woman and pro-nature orientation to technology development and dissemination. Also Intellectual Property Rights (IPR) policies should be such that there is social inclusion in access to technologies. This will call for a considerable stepping up of investment in public good research and an antyodaya approach to technology development and dissemination. There is no option except to produce more food and other commodities under conditions of diminishing per capita arable land and irrigation water resources. Hence, we must harness the best in frontier technologies and integrate them with traditional wisdom and thereby launch an eco-technology movement.

Research should be tailored to the need for adding economic value to the time and labour of the poor, particularly women. Also, the advantage of the National Rural Employment Guarantee Programme (NREGP) should be taken for launching a massive adult and functional literacy programme using computer aided joyful learning techniques. The poor are poor because they have no assets, neither land nor livestock nor fishpond. They are often illiterate also. Modern technologies can help to achieve a quantum jump in imparting literacy and

market-driven skills. They should therefore be harnessed for the benefit of resource poor farm and landless labour families living below the poverty line. Further, the NREGP should be used to create productive assets in rural areas, particularly in the areas of water harvesting and aquifer recharge.

Within a week after the launch of NREGP, 2.7 million applicants reportedly registered themselves for employment under this programme in 13 districts of Andhra Pradesh and a million registered in 12 districts of Maharashtra. The average wage under this programme is about Rs. 60 per day. While this will help them to get their daily bread, the programme cannot solve the challenge of pervasive poverty. Since NREGP represents employment of the last resort and caters only to unskilled work, the extent of despair and deprivation in rural India is obvious from the demand for placement in this programme.

Addressing the nutrition, healthcare and education needs of the poor and particularly of agricultural labour, tribal women and men and fisher families should be given top priority. Nearly 75% of children in the country are underweight due to inadequate nutrition. India has the largest number of underweight and low birth weight children and their prevalence is almost double that of Sub-Saharan Africa. Micro-nutrient deficiencies are widespread. More than 75% of preschool children suffer from iron deficiency anaemia. About 57% of preschool children have sub-clinical vitamin A deficiency. Traditional food habits in rural and tribal areas included a wide range of millets, tubers, grains legumes and leafy vegetables. The revitalization of nutrition-centred farming systems is an urgent task. Both dying crops and dying wisdom should be saved and harnessed for local level community managed food security systems like Community Food Banks.

While farm families are crying for additional investment in infrastructure and farm innovation, there has been a drop in government investment in the agriculture sector. The drop in government as well as private investment has significantly slowed down momentum in the entire rural economy. Public policies in the area of farm subsidies have led to distortions of groundwater. The intensive wheat-rice rotation in the Punjab-Haryana region has led to the depletion of groundwater and to soil stalinization in some areas. Balanced fertilization has been affected by the heavy subsidy given to urea based fertilizers, particularly in the context of a sharp rise in the prices of all chemical fertilizers. Soil micro-nutrient deficiencies are not being addressed. Consequently, factor productivity is going down, with a consequent adverse impact on the cost of production.

Ours is a nation of subsistence farmers, who constitute one fourth of the global farm population. There is little or no evidence that policy is being shaped by that reality. Farming is the largest people's private sector and a corporate domain. The immediate step government must take is to implement the

NCF recommendation for a Price Stabilization Fund. While a multiplicity of factors is driving the farm suicides, the greatest worry of the farmer relates to the price he is likely to get for his produce at harvest time. This has proved true regardless whether the produce is cotton, onions, groundnut, sugarcane or pulses. Assured and remunerative price for farm produce is the core issue. Farmers should be assured that there will be strong Government intervention to prevent distress sales.

The review and overhaul of credit operations ought to be far more transparent and rigorous. The credit cycle in chronically drought prone areas like Vidharbha should be 4 to 5 years. An Indian Trade Organization (ITO) should come into existence soon as a watchdog body to safeguard farmers' interests. The ITO could be supported by a Trade Advisory Body for Small Farmers. The objective would be to allow farmers to engage with decision makers in the formulation of appropriate policy responses to developments in agricultural markets.

Another area where the Central and State Governments can help is input costs. High quality inputs should be made available at affordable prices at the right time and place, along with credible extension advice. Today, the farmer depends on the input dealer who sells seeds, pesticides and fertilizers for technical advice. In many "Suicide Hot Spot" areas, the input dealer is also the moneylender, the scientist, agricultural expert, counselor and buyer all rolled into one. Until such time we do not recognize the root causes of this sad chapter of our agricultural history, remedial actions will largely be cosmetic.

### *Livestock and livelihood*

The contribution of the livestock sector to agricultural GDP has increased from 18% in 1981 to 26% in 2004-05. It is clear that livestock and livelihoods are very intimately related in our country and that crop livestock integrated farming is the pathway for farmers' well being.

The ownership of livestock is much more egalitarian since resource poor farming families own a majority of cattle, buffalo, sheep and goats. The major constraints experienced by such families relate to fodder, feed and healthcare. There is an urgent need for establishing Livestock Feed and Fodder Corporation to assist Self Help Groups to produce good quality animal feeds. Such a Corporation should be a facilitating body for providing seeds and planting material of improved varieties to SHGs for local level production. The productivity of our livestock is low and can be easily improved through better nutrition and healthcare. Agri-clinics operated by veterinary and farm science graduates will be very helpful to enhance the income of livestock owners through higher productivity. At the same time, crop livestock mixed farming systems should be promoted since this will help to improve both income and household nutritional security. It should be noted that suicides by farmers are rare in areas where there

are multiple livestock opportunities. India's achievement, in becoming the largest producer of milk in the world, has an important message, namely, concurrent attention to all links in the production, processing and marketing chain through cooperatives and group endeavour will lead to striking results.

The Union Finance Minister while presenting the 2006-07 budget had announced that banks are being asked to provide a separate window for SHGs as well as for joint liability groups of tenant farmers. This window will provide an opportunity for achieving a fodder and feed revolution for enhancing the health and productivity of our unique livestock wealth. Livestock insurance also need revamping and made accessible to small livestock owners. Livestock rearing can be linked to organic farming, so that there is value addition to the produce from small farms.

### *Need for a Non-Farm Livelihood Initiative*

China has addressed the need for creating opportunities for skilled non-farm employment through a massive Township and Village Enterprises (TVE) movement. There were 21.15 million TVEs in China at the end of 2001, employing a total 130 million workers. Their added value of 29356 billion Yuan (3669.5 billion US\$) accounting for 31.1% of the national total (He Kang, 2006, *China's Township and Village Enterprises*, Foreign language Press, Beijing).

Several programmes have been initiated by KVIC and NGOs for generating off and non farm employment. The SHG movement is helping women, particularly in South India to come out of the poverty trap. There is need for a counterpart to NREGP in the skilled employment sector. Initiative like Small Farmers' Agri-business Consortium (SFAC), Agri-clinics and Agri-business Centres, Food parks, Textile and Leather Parks, etc., which could have provided substantial additional livelihood opportunities to the rural poor are yet to take off. It would be useful to integrate all of them into one initiative like China's TVEs and launch a Rural Non-Farm Livelihood Initiative for families without land or other productive assets. The joyful learning programme through computer aided adult/functional literacy procedures should help to accelerate the progress of eradication of illiteracy. The Rural Non-Farm Livelihood Initiative could have as its core the KVIC and restructured SFAC and bring all rural non-farm employment programmes together, in order to generate convergence and synergy among them. A consortium approach could be adopted involving Central and State Governments, Academia, NGOs, public and private sector industry and financial institutions. The sooner we initiate a massive and market driven rural non-farm livelihood programme, the greater will be the prospect for peace and security in rural India. Also, food security in India is best expressed in terms of million person years of jobs, rather than in million tonnes of food grains. Where there is work, there is money. Where there is money,

there is food. There is, therefore, need for restructuring and revamping of organizations like SFAC, KVIC, Agri-clinics and Agri-business Centres.

### *Public Policies for Sustainable Livelihoods*

The cost-risk-return structure of farming is getting adverse, leading to increasing rural indebtedness. The following steps will help to ensure that the wellbeing and livelihood security of farm and rural families become bottom line of public policies.

The scope of the Minimum Support Price (MSP) programme should be expanded to cover all crops of importance to food and income security for small farmers. Arrangements should be made to ensure MSP at the right time and the right place, particularly in the areas coming within the scope of the National Rainfed Area Authority. Also, advice to farmers on crop diversification should be linked to the assurance of MSP. Small farm families should not be exposed to administrative and academic experiments and gambles in the market.

- A Market Risk Stabilization Fund should be established jointly by Central and State Governments and financial institutions to protect farmers during periods of violent fluctuations in prices, as for example, in the case of perishable commodities like onion, potato, tomato, etc.
- There is need for an Agriculture Risk Fund to insulate farmers from risks arising from recurrent droughts and other weather aberrations.
- The scope of Agricultural Insurance Policies should become wider and there should also be coverage for health insurance, as envisaged under the Parivar Bima Policy recommended by NCF in its First Report. There should also be insurance provided by Seed Companies in the case of GM crops, so that farmers who pay high prices for the seeds for such crops do not suffer in case of crop failure.
- A basic requisite for enhancing small farm productivity is the health of the farm worker. Hence, a Food-cum-Drug based approach to healthcare should become an integral part of the National Rural health Mission.
- An Indian Trade Organization (ITO) and an Agro-ecological Land Use Advisory Service should be established on the lines recommended by NCF in its Third Report. The ITO should help Government to operate a Livelihood Security Box.
- Agricultural progress should be measured by the growth in the net income of farm families. Along with production growth rates, income growth rates should also be measured and published by the Economics and Statistics Directorate of the Union Ministry of Agriculture.

- Article 243 G of the 11<sup>th</sup> Schedule of the Constitution (73<sup>rd</sup> Amendment) Act, 1992 entrusts Panchayats with responsibility for agriculture including agricultural extension.

At the moment there are about 2,25,000 panchayats in the country. The problems facing Indian Farmers are generally dealt with in an aggregated manner i.e., taking into consideration the problems of over 100 million farming families as a whole. They then appear formidable. However, if such problems are disaggregated and dealt with by Gram Sabhas and Panchayats, location specific problems can be attended to speedily and effectively. The extreme distress faced by farmers in certain regions of the country can then be dealt with promptly. Therefore, it is time that the provisions of Article 243 G are implemented, both in letter and spirit. Panchayats should be involved in water conservation and management as well as in the resettlement of those who will be displaced by big dams through *Gram Sabhas* serving as *Pani Panchayats*. Also, one woman and one male member of the *panchayat* should be trained to serve as Farm Managers. In the areas prone to drought, floods and cyclones, one male and one female member could also be trained to serve as Climate Managers. *Panhayats* could also be the location for the Gyan Chaupals. They can then play a very important role in agricultural renewal and renaissance.

### *2006-07: The Year of the Farmer*

To restore farmers' faith in farming, the National Commission on Farmers has recommended that the agricultural year of 2006-07 (June 1, 2006 to May 31, 2007) may be observed as the Year of the Farmers. The steps recommended by NCF are simple, doable and affordable. They, however, need a change in mindset from one which regards farmers as "beneficiaries" of small government programmes, to one which treats them as partners in development and custodians of food security and national pride. Integrated action on the following five points will help to get our agriculture back on the rails.

First, undertake soil health enhancement through integrated measures in improving soil organic matter and macro and micronutrient content as well as the physics and the microbiology of the soil. Gujarat has already issued Soil Health Cards to farm families and other states can do likewise.

Second, promote water harvesting, conservation and efficient and equitable use by empowering Gram Sabhas to function as *Pani panchayats*. Such *Pani panchayats* should foster the establishment of community managed water banks and the recharge of the aquifer. A sustainable water security system should be put in place, particularly in rainfed areas lacking assured irrigation facility. This will be facilitated by mandatory water harvesting and greater attention to dryland farming.

Third, initiate immediately credit reforms coupled with credit and insurance literacy. The Finance Minister has announced a reduction in the interest on short term loans to 7% but this should be regarded as the first step in a series of measures including the revitalization of the cooperative credit system. Credit support should include attending to the credit needs of farm families for agricultural, health and domestic needs in a holistic manner. Also in chronically drought prone areas, the credit repayment cycle should be extended to 4 to 5 years. Credit delivery systems should be engendered since only a small proportion of women cultivators have been issued with Kisan Credit Cards in spite of the increasing feminization of agriculture. Adequacy and timelines of credit availability are vital for institutional credit to be meaningful to small farmers.

Four, bridge the growing gap between scientific know-how and field level do how both in the production and post harvest phases of farming through a slew of measures including the training of one woman and one male member of every Panchayats as Farm Science Managers, establishing Farm Schools in the fields of outstanding farmer achievers, adding a post harvest technology and agro processing wing in every Krishi Vigyan Kendra, and organizing nationwide lab to land demonstrations in the areas of agricultural diversification, food processing and value addition.

Also knowledge connectivity as proposed under Bharat Nirman should be accomplished by establishing Village Knowledge Centres or Gyan Chaupals throughout the country. Small farmers should not be subjected to administrative and academic experiments in the area of crop diversification, without first linking the farmer with the market for the new commodities. Crop livestock-fish integrated production systems are ideal for small farmers since this can also facilitate organic farming. Low economic risk, high factor productivity, promotion of integrated farming systems, avoidance of ecological harm and assured income must be the bottom line of all agricultural research and development strategies. Had we adopted a pro-small farmer biotechnology strategy, we will by now have Bt-cotton varieties, whose seeds farmers can keep and replant, unlike in the case of the hybrids marketed by private companies.

Scientific strategies should include attention to both on-farm and non-farm livelihoods. We should confer the power and economy of scale on families operating one ha or less through management structures like cooperatives or group farming as well as contract cultivation based on a win-win model of partnership for both the producer and the purchaser. Institutional structures like Small holders' cotton, horticulture, poultry and aquaculture estates can be promoted by stimulating the formation of Self-help Groups at the farm level. Concurrently, we should launch an integrated Rural Non-farm Livelihood Initiative by revamping and integrating numerous isolated non-farm employment and income generation agencies

such as the KVIC, Small Farmers' Agri-business Consortium (SFAC), Textile, Leather and Food Parks, Agri-Clinics and Agri-business Centres. Unless market driven multiple livelihood opportunities are created, the pressure of population on land will grow, the indebtedness of small farmers will increase, and the agrarian distress will spread. Poverty will persist so long as asset less rural families remain illiterate and unskilled. The National Rural Employment Guarantee programme provides a unique opportunity for imparting functional literacy using computer aided joyful learning techniques. We should use new technologies to leapfrog in the area of human development in villages. At the same time, knowledge without access to the inputs to apply that knowledge will have no meaning. Input supply systems need review and reform.

Finally, the gap between what the rural producer gets and what the urban consumer pays must be made as narrow as possible, as has been done in the case of milk under Dr. V. Kurien's leadership. The National Horticulture Board was created for this purpose over 23 year ago, but like SFAC, it also lost its way. It can only be hoped other expensive new programmes like the Fisheries Development Board, the National Rainfed Area Authority and the National Horticultural Mission will learn from the success achieved by agencies like the National Dairy Development Board, the Indian Space Research Organization and the Atomic Energy Commission in achieving specific goals in a time bound manner, and benefit from strong professional leadership.

There is an urgent need for a National Land Use Advisory Service, structured as a virtual organization on a hub and spokes model, the spokes covering the major agro-climatic zones and farming systems for providing proactive advice to farmers on land and water use through an integrated analysis of meteorological, agronomic and marketing data. There is also need for an Indian Trade organization whose mandate is to protect the livelihood and income security of farm and fisher families. At the same time, there should be a Risk Stabilization Fund and a farmer-centric Minimum Support Price (MSP) and Market Intervention Scheme (MIS).

Agriculture in our country is based on the technology of production by masses. As a consequence, it is the backbone of the national livelihood security system. The Indian tragedy of extensive poverty and deprivation persisting under conditions of impressive progress in the industrial and services sectors will continue to persist so long as we refuse to place faces before figures. NCP has suggested the mainstreaming of the human dimension in all agricultural programmes and policies, the adoption by the National Development Council of a National Policy for farmers and the establishment of a State Farmers' Commission by every State Government, in order to voice the voiceless in the formulation of farm policies including the preparation of the 11<sup>th</sup> Five Year Plan. Let the Year of the Farmer help to shape our agricultural destiny in a manner that farming once again becomes the

pride of the Nation on the occasion of the 60<sup>th</sup> anniversary of our Independence on 15<sup>th</sup> August 2007.

### *Role of Farm Graduates in shaping our agricultural future*

There are currently 45 Agricultural and Veterinary Universities in the country including Deemed Universities. Over 21000 Agricultural Graduates and Post Graduates are becoming available each year. Farming is become knowledge intensive and there is need for retaining Farm Graduates and Home Science Graduates in our villages in order to achieve the desired technological upgrading of farm enterprises. We need a national strategy for the knowledge and skill employment of farm families. At present, most of the Farm Graduates are either taking jobs in Government or Financial Institutions or in Private Sector Industry. They are seldom taking to farming as a profession. This is not surprising, since as mentioned earlier over 40% of farmers would like to quit farming. There is an urgent need for increasing the productivity, profitability and sustainability of major farming systems in the country through synergy between technology and public policy.

There are several ongoing technology transfer and extension mechanisms. The latest addition is the ATMA. Krishi Vigyan Kendras, lab to land programmes and regular extension services also exist. In spite of these efforts, the gap between scientific know-how and field level do-how is widening. This is why, it is essential that steps are taken to attract and retain educated youth in farming. They can help

to empower rural women and men with new skills and technologies including biotechnology, Information Communication Technology and Renewable Energy Technology. They can also help to provide need based services including appropriate and good quality seeds and other inputs at the right time and place. Extension of knowledge and of the inputs needed to apply that knowledge at the field level will have to be concurrent.

### *No Time to Relax*

The consequences of inaction in addressing the prevailing agrarian distress will be disastrous. Mentioning three of them would be adequate to highlight the serious implications of neglecting the "Jai Kisan" commitment.

- Expansion of threats to internal peace and security (e.g. spread of Naxalite Movement)
- Reverting to a ship-to-mouth existence, thereby diluting national sovereignty and enlarging the rural-urban divide in economic growth
- Jobless or even job-loss economic growth resulting in joyless growth for nearly half of our population and the consequent expansion of urban slums.

If agriculture goes wrong, nothing else will have a chance to go right. If conversely agriculture goes right, the vision of a hunger and poverty free India can become a reality sooner than the time-frame set under the UN Millennium Development Goals.