

**18th  
Jawahar Lal Nehru Memorial  
IFFCO Lecture**

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# **The State of Rural Development in India**

**- Yoginder K. Alagh**

## **Introduction**

I am grateful to IFFCO to give me this opportunity to speak on agricultural and rural development possibilities. This is particularly so in a lecture in the honour of Jawahar Lal Nehru, a butt of considerable tasteless and uninformed criticism in present debates on development policies. It is true that Nehru had made an unequivocal choice to push India in the direction of modern technology and that involved industrialization and the emergence of India as a soft super power goes back to the scientific culture he shored up. But he believed in widespread growth strategies and technology, irrigation and river basin development, for example were cornerstones of his economic approaches. Also there was in his thinking considerable emphasis on rural institutional reform, following Gandhian ideals and removal of feudal institutions, development of rural social infrastructure and of cooperatives was given priority and detailed attention. Shrimati Indira Gandhi was to emphasize agricultural self-sufficiency, the late Shri Rajiv Gandhi was to pick up those threads and emphasize technology for agricultural and rural development in a disaggregated agro-climatic regime again and the development of

Panchayati Raj. Since I have been invited to lecture in the honour of Pt. Nehru, I would take the liberty of removing some cobwebs being created by those who should know better. I have in a recent response to critics of Indian development approaches argued that:

" When Dani and Subrahmanian discovered Indian growth earlier this year at the IMF, they said it happened in the Eighties, because we favoured the capitalist. They were a little late in discovering the "mystery" of Indian growth, but now are worse in describing it."

In a larger context, Lord Desai summarises the past as follows:

- "Opening out the economy to foreign borrowing on official account in the 1980s was the beginning of an admission that self reliance was not a successful strategy, that the Indian economy was trapped in a low growth equilibrium." Therefore
- "A lifetime of living off tariffs and subsidized interest rates has inured the big business classes against the virtues of competition" (Meghnad Desai, 2004).

In the early seventies, India did miss out on outward looking industrial growth of many countries and its main

economic achievements were in the food and energy sectors. For example, gross capital formation in the agricultural sector at Rs. 5566 crores at 1993 prices in 1976-77 rising to Rs. 7301 crores in 1980-81 has not been achieved in the Nineties and since in absolute terms. But the argument that the policy systems of the eighties were designed to establish a cosy relationship between the capitalists and the establishment through tariffs and directed credit is factually incorrect. By the mid eighties the National Institute of Public Finance and Fiscal Policy stated that 65% of Indian industry was out of controls on prices, output and to a large extent on investment. Policy broke the back of the one to one link between the babu and the sethji and was very clear that global reform was to come next.

Reform was in a strategic framework. In the first round the efficient Indian firm was protected by tariffs and policies were harmonized and phased in a manner such that, the efficient man did not suffer, because his supplier was not reformed to the extent necessary. Industry had to cope with domestic competition, prices regulated by tariffs and major churning took place. Priority was on domestic reform in the first phase.

It is also argued that growth of the Eighties was not sustainable since it led to fiscal deficits and policy has corrected this in the Nineties. But the combined fiscal deficit of Central and State Governments was 9.4% of GDP in 1990-91 and is 9.9% of GDP in 2001-02, the last year for which estimates have been given in the Economic Survey. No wonder fiscal sustainability is the task at hand of the present Government and not a great achievement of the Nineties (Y.K. Alagh, 2005).

To get back on our main job, I will speak on rural development possibilities. It is an old adage of the Indian economy that without a prosperous agriculture, rural development may not be possible. We look at the recent poor performance of Indian agriculture and ways to correct it. Agriculture specifically determines rural activity by the activities, which service it, like input suppliers and processing and marketing of output. We focus on seeds, fertilizers, credit and support facilities and policies and performance in land and water markets in the primary value chain. Also recent attempts at supporting diversification of agricultural incomes in the value chain to the buyer. Apart from agriculture in the Twenty First century, incomes can be created with the knowledge economy as a base and the linking of local economies in rural areas and small towns with the national and global economy. We look at these possibilities. Finally there is the whole

possibility of a dynamic social sector in areas like education and health providing a focus to growth. The analysis shows that stakeholder groups like Cooperatives or Producer Associations are not only relevant to the times, but are still very important.

### **Agriculture**

We eroded existing institutions, globalised without homework and paid for it by a reversal in diversified and spread out agricultural growth, falling profitability and investment, since the Nineties of the last century. Agricultural growth fell; structural change in the economy in terms of rural-urban shares slowed down and inequality between rural and urban areas went up (Alagh, 2004). I have been saying this for some time, but with the Mid-Term Appraisal of the Plan, (Government of India, Planning Commission, 2005) it is now official. The Finance Minister is reported to have made a wise statement recently saying that the economy is doing famously, but we don't know what to do to agriculture. Without a dynamic agriculture, rural development is a non-starter.

At the very macro level Table -1 brings out the main story. The larger picture in terms of output and productivity growth and the shift away from food grains is shown in the following estimates :

**Table-1**

**Average Annual Growth Rates in Index of Area and  
Production**

Time Period	1950-51	1996-97	1950-51	1979-80	1980-81	1996-97
	All Crops	Non	All Crops	Non	All Crops	Non
		Food		Food		Food
		grains				grains
		grains				
Production	2.7	2.99	2.46	2.70	3.37	4.39
Area	0.61	1.22	0.86	1.17	0.27 (NS)	2.02

Estimated by semi- log regressions on time. Estimates significant at 99% confidence levels.

NS signifies Not Significant at 95% levels.

Source: Munish Alagh, 2003

Growth of production goes up since the eighties for the agricultural sector as a whole. Output is now rising at 3.37% compound annual as compared to 2.46% earlier. The contribution of area goes down, yield being the major source of growth in the second phase. Growth of output in the non-food grain sector is only marginally higher than for the entire sector for the period up to 1980. However since then the non-food grain sector grows at

4.39% annual, which is significantly higher than the growth of the sector as a whole. According to a recent authoritative review :

"The growth patterns in the crop economy have been analysed by many distinguished academicians in the last three decades (Bhalla and Alagh 1979; Bhardwaj 1982; Sawant and Achutan 1995; Bhalla and Singh 2001). The emphasis on foodgrains has been going down over the decades and more sharply during the later part of the five decades. Consequently, the area allocation towards commercial crops is increasing. Fruits and vegetables have been gaining significantly over the three decades at the cost of coarse cereals and pulses." (RS Deshpande, et. Al., SOFA).

Apart from trade the major impact of faster income growth was on domestic demand leading a process of demand diversification in a big way. For example, the 1980s and 1990s record a much faster growth of agro- based consumption in the Indian demand basket. Per capita consumption of sugar goes up from 6.2 in 1975 -76 to 14.9 Kgs./year and that level is not only much higher than in comparable countries, but also than in countries which have much higher levels of per capita income. Also, there has been a very rapid increase in consumption of non-crop based commodities like eggs and milk consumption. Egg consumption per capita goes up from 15 to 30 per year in the period of 1975 - 98. India becomes

the largest producer of milk in the World. Thus, as shown in my Lal Bahadur Shastri Lecture, expansion and diversification of the consumption basket is basically driven by a higher growth performance in the 1980s (Y.K. Alagh, ICAR, 1994).

### **The Reversal**

The rate of growth of the agricultural and allied sector decelerated during nineties and this trend continues during the post - 2000 period. The argument is sometimes made that while food grains growth has decelerated, that of non-food grains and dairying, etc., has improved. This is not true as shown by the growth of the more inclusive agricultural and allied sector.

#### **Growth of Agricultural GDP at 1993-94 prices**

Period	Annual compound growth rate
(1980-81 to 1989-90)	3.10
(1990-91 to 1999-2000)	2.95
(2000-01 to 2004-05)	1.37
(Triennium averages)	

The Ninth Plan period (mid- nineties onwards) also sees a disturbing slowing down of the process of diversification. The following statistics show this:

(mn. Tonnes/ bales for cotton)

S.No	Crop/ Sector	1996-97	Highest 1997-99	Target Ninth Plan
0	1	2	3	4
1.	Food grains	199.44	205.91	234.00
2.	Oilseeds	24.38	25.21	30.00
3.	Sugarcane	277.56	309.31	338.00
4.	Cotton	15.70	14.23	12.18
5.	Fruits and Vegetables	141.00	122.00	179.00
6.	Milk	69.00	78.10	96.50
7.	Egg (bn Nos.)	27.50	30.32	35.00
8.	Fish	5.35	5.80	7.00
9.	Tea	0.78	0.85	1.00

Source: Planning Commission, Annual Plan, 2000-01, P. 301

#### **Agricultural Growth Decelerators:**

1. Decline in public investment on irrigation since the early 1980s (the annual growth rate declined from 4.0 percent during 1980s, to 1.9 percent during 1990s) slowed down expansion of irrigated area. It was estimated that a 10 percent increase in public expenditure on irrigation would increase the crop output by 2.9 percent. (See Alagh

(1991), Kalirajan and Bhide (2003) for the relevant elasticities).

2. Agricultural profitability has fallen by 14.2 percent through the decade of economic reforms. Earlier agricultural fixed capital formation in the private sector was rising, although it had collapsed in the public sector. But in the last few years, private sector investment in agriculture had collapsed, although there is some revival in public investment. The National Accounts for 2003 suggest some improvements. But recent estimates are subject to revision and need to be interpreted with caution. Gross Fixed Capital Formation in the Agricultural sector at 93-94 prices has gone up from the revised figure of Rs. 13934 crores in 1998-99, Rs. 15380 crores in 1999-00, and to Rs.155447 crores, in 2000-01. The Corresponding figures for Public Capital formation are Rs. 4459 crores, Rs. 4247 crores and Rs. 3944 crores . Thus private capital formation in the agricultural sector was Rs. 9473 crores in 1998-99 and went up to Rs. 11133 crores in 1999-00. This figure is now estimated at Rs. 11,503 crores in 2000-01, an insignificant increase from the earlier year. Private capital formation in India agriculture is either falling or stagnant. (See Planning Commission, 2005, pp.; for earlier versions Alagh, 2003, 2004 or if you don't like academics, read The

Grain of Truth every alternate Wednesday in the Indian Express).<sup>1</sup>

3. Low public investment on agricultural research (0.4 percent of agricultural GDP).
4. Decline in the annual growth rate of fertilizer use from 7.8 percent during the 1980s to 4.3 percent during the 1990s due to increasing fertilizer prices. A 10 percent increase in fertilizer prices reduces fertilizer consumption by 8.3 percent and crop output by 2.4 percent.
5. Deceleration in the annual growth rate of area under HYV from 4.9 percent during the 1980s to 2.8 percent during the 1990s.
6. The first half of the Nineties was a period of explosive growth of agricultural trade. Import growth exceeded export growth. In the second half, substantial import growth continued. Exports collapsed.

In the Nineties, while India signed the Marrakesh agreement, there was a strong inclination not to fashion a strategic policy frame on garnering the gains from trade in agriculture. Unlike the reform of the Eighties, there was no Indian view on trade reform.

The world doesn't treat large countries that don't do their homework well. India suffered. In a market economy profitability gives powerful signals for resource allocation, both for the short run and equally important for investment. Profitability of resource use is important, not just productivity of land. We have to move over from a Ricardian to a Haberler point of view at the micro level. Not just land productivity, but profitability of resource use gives signals at the margin for resource use. Mindsets have to change. Policymaking failed in creating a positive economic regime for private investment in agriculture. This was an extremely serious matter and needed a well worked out policy response imbedded in a positive macro- regime for the agricultural sector (Alagh, 2003).

Short run difficulties were nested in the more basic challenge of limits to growth imposed by scarcity of land and water resources. Per capita arable land declined from 0.24 hectares in 1979-81 to 0.10 hectares in 1997-99. Per capita arable land is more or less the same as that of China. "East Asian Societies have a concern for land scarcity which has come through decades. This is not happening in India" (Alagh : 2002). There is little appreciation of the fact that growth has to come now entirely from productivity improvement or increase in crop intensity. Instead there is a tendency to escape into utopias like interlinking of rivers, multinational led contract farming replacing the raiyat, export of

fruit and so on. All Utopias have a "Grain of Truth" when seen from a village; they become the only panacea in incomplete thinking.

### **A New Regime**

An effective response is needed to the new WTO dominated trade responsive agriculture. There is need to rely not only on the 'old dependables' the cost- price nexus policies, but also market friendly instruments like tariffs, credit policies, public investments complimenting community initiatives and to develop macro and market structures to meet the new challenges. The real policy options are to build markets, develop information systems of the economic opportunities available, design financial institutions and strategic organizational structures which work and provide finances for communication, processing, standardization, quality upgradation and trade. Farmers need access to improved energy and water supplies for improving productivity and diversification. Land development technologies in addition to inputs and services should be easily accessible.

It is increasingly being recognized that giving lectures on the efficiency of World markets, dismantling local structures and sitting back and waiting for global opportunities to bring about the millennia was perhaps never the only answer and would always

be a part answer in an extremely imperfect global order. Experts like Ashok Gulati for long championed these mind sets and maintained the stance that the major problem was that the AMS was negative. He has now modified his position and is much closer to stands taken by local scholars (See Alagh, 2003 and A. Sen and M.S. Bhatia, 2004). In a study released in May 2005, it is now stated that:

"We report less disprotection of Indian agriculture in the 1990's than in earlier studies" (See K. Mullen, D. Orden and A. Gulati, IFFPRI, 2005).

The context is going to be difficult for India. It has to be recognized that;

1. India does not discriminate against agriculture as much as it did in the past.
2. In the case of rice and wheat a new playing field is there.
3. India subsidises agriculture in a big way, Indian subsidies will be up for discussion in the next round. The reform process will have to be WTO compatible.

A roadmap for principal crops not based on historical costs but opportunity costs at the margin will have to be developed so that technological progress and India's competitive advantage such as

bright sunshine and cheap labour are given a free reign to play. The farmer must be given incentives of a pricing and non-pricing nature to internalize costs of transition for a well defined and limited period. Higher level policies of support have to be implemented to meet the costs of a competitive agriculture in the medium term of three to five years.

The percentage of import of edible oils to domestic production was 95% in 2002-03. Natural cycle of 18 months in case of sugarcane crop, for instance, has been distorted by imports of sugar during the second half of the decade of nineties. Cotton imports of a sixth to a fifth of demand are seldom seen as a problem. It is important that Government agencies appreciate the damage done to the Indian agrarian economy of the kind of import quantities shown in this report. Many agencies show so called low imports by ignoring, for example, cotton imports, sugar imports and edible oil imports. Also the impact of an inadequate policy regime since the early Nineties need to be recognized.

We have developed elsewhere the concept of an efficiency shifter with which Indian agriculture can move from a subsistence low yielding activity to a dynamic competitive sector capitalizing on the advantage of a peasantry, which has historically proved its enduring and hard working nature and the real resources with

which the nation is endowed (Alagh, 2003). To make agriculturalist competitive, the farmer has to be supported in terms of the cost of production of efficient farming. These costs monetize existing practices, meet the immediate costs of technology adoption and learning and are sometimes embodied in new inputs. Many of them are of immediate kind and after an initial thrust and support, the farmer will compete on its own. The capital cost for such an economy at the margin would be higher than the historical costs. But current output costs would be lower per unit of output, although they would again require larger working capital requirement.

Take paddy farming. If you differentiate between the farmers who spend more on machinery and land development as reflected in their rent costs, the average yield for the higher rent and machinery category of paddy farmers in Punjab was 57.5 quintals/ hectare but for the lower rent and machinery category was 51.1 quintals/ hectare for the year 2000-01. Cost of production per quintal for higher rent and machinery cost at the mean level was Rs. 431 per quintal, but for the low yield, low rent and machinery costs was Rs. 391 per quintal. There is a ten percent difference. If average costs of both kind of farmers are taken into account for price setting, the competitive farmer will never get the incentives to expand and the low yield farmer to modernize and become competitive. Similar examples can be constructed for other crops.

We have demonstrated with numerical examples that such policies can be WTO compatible, if they work through the tariff, monetary policy and technology route. Now is the time to move to a dynamic trading agriculture competing with the rest of the world. Unfortunately the global agricultural market is highly distorted and phasing of the reforms has to be consistent with the changes in the world markets. India has assumed a leading role after Cancun round of negotiation. This would determine phasing and volume of tariff levels. But the policies for enhancing the competitiveness of Indian Agriculture have to be implemented with a sense of urgency. These counterfactuals (Alagh, 2005) have shown that achievable targets in instruments like tariffs, taxes, reduced effective interest rates and better marketing support can be integrated with pricing recommendations which are alternates with MSP increases. These should become the standard practice. This integration would be market friendly and WTO compatible in the sense that it would not show in AMS calculations and would serve the purpose of policy. For example Commodity exchanges should be promoted in various parts of the country and the NCDEX and other networks for informed analysis should be a policy instrument.

## **Seeds**

It is quite obvious that we are arguing for a strategic policy making view on Indian agriculture, which pushes ahead the reform process in a methodical manner, rather than a policy which works only by reducing interventions. This approach is also valid for areas like input supplies and output processing for a high value agriculture. Let us begin with seeds. A very interesting aspect of the Indian experience is that Indian scientists have generally responded well to well structured science and technology initiatives. When the goals have been clear, and support mechanisms in terms of organizational strength and resources assured on a reasonable basis, performance has been excellent. Take an example. In 1989 when the policy of selective import of seeds was announced, Dr. R.S Paroda was able to get an assurance from the then Prime Minister Rajiv Gandhi that in selected crops, Indian agricultural scientists would get support for mission oriented projects. The successful development of Hybrid Paddy by Dr. Siddique's Group was the result. Also for castor similar results were achieved. Many more are there. An area of strength with India is mission-oriented research. But results on the field are different issues and progress in some cases is poor, like the spread of hybrid Paddy or the mess in Bt. Cotton.

Hybrid paddy research was an example of a private - public partnership. But it failed as an organisational system and its

application has been a disaster. There is no coordination in spreading the technology. Its R & D achievements were as follows:

Relative Yields of Rice Released in India and areas of Adaptation

Hybrid	Duration/days	Yield(tones/hect)	Areas
APHR-I	One Hundred twenty to thirty	7.10	Telangana and Rayalaseema of A.P.
APHR-II	One Hundred twenty to twenty five	7.50	Telangana and Rayalaseema of A.P.
MGR-I	One Hundred ten to fifteen	6.00	Kuruvali in Tamil Nadu
KRH-I	One Hundred twenty to twenty five	6.00	Irrigated ares in Karnataka
CNHR-III	One Hundred twenty five to thirty	8.10	Boro in West Bengal
DRRH-I	One Hundred twenty five to thirty	8.00	AP, TN and Karnataka
KRH-IV	One Hundred thirty to thirty five seasons	8.20	Irrigated areas in Karnataka both

Source : ICAR

## Large Hybrid Rice Seed Producers

<b><u>Seed Agency</u></b>	<b><u>Hybrids</u></b>
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### A. Private Sector

Hybrid Rice International	6IIOI
MAHYCO	KPH
SPIC - PIII Biogene	PHB
Lever's	PRS
Vikkis Agro-Tech	VRH

### B. Public Sector

DRR/KVK Gaddipatty	DRRH
DOA, TN and EID Parry	MGR
Karnataka State Seed Development Corpn.	KRH
A State Seed Devp. Corpn.	APRH
DOA, West Bengal and pattishree	CNRH

List of Private Companies in Seed Research and Production for Rice Hybrids.

<b>Company</b>	<b>Research</b>	<b>Seed Production</b>
MAHYCO	X	X
PROAGRO	X	X
Pioneer	X	No
SPIC	No	X
ITC Zeneca	X	X
Indo-American	X	X
EID Parry	X	X
Vicky-Agrotech	X	No
Levers	No	X
Rasi	No	X
Omega	No	X
Nath	No	X
Mahendra	No	X
Nagarjuna	X	X
Zuari	No	X

Source CII

In Bt Cotton the story is much worse. We have successfully created a system in which millions of farmers are so called "criminals" and the most preferred seeds are sold illegally. Legal systems, which were created, to determine foolproof safety controls on genetically engineered seeds were used to look into

productivity, cost or other commercial aspects, which they were not, meant to. The economic tests were supposed to be met by the market. Also there was no thinking on the relationship between the user groups, coops, farmer groups, etc., small technology companies in which India has strength and multi-nationals. The kind of coordination mechanisms, which were developed earlier, and lead to the spread of the HYV technologies have been weakened and no new successful working models put in place. Private - public partnership as the ADB has pointed out in its excellent volume on Vision of Asian Agriculture 2020, (ADB, 2001) need policy championing. Newer systems run into problems. If at high levels of policy making solution system do not exist, the experiments fails. It is easy to break past systems. It is difficult to build new ones.

### **Fertilisers**

The low growth in fertilizer application has been noted. The world over diversification in agriculture has meant that the trend is to newer more environmentally benign and productive nutrients. GSM techniques have also meant nutrients more specifically suited to the agro- climatic and cropping regimes. Our country has remained largely immune to these innovations, on account of a hopelessly inefficient pricing regime, with high incentives only for chemical nitrogenous fertiliser. The growth this regime provided is

also now petering out. The system, until recently based on firm level pricing system also encouraged energy wastage and protected inefficiency apart from providing the structure for corruption.

The last few budgets, the Five Year Plan, the Expenditure Reforms Commission and the Committee on Capacity Utilization in the Fertilizer industry and the Long Term Fertiliser Policy Draft of the Department of Fertilizer all proposed fertilizer price reform in India. The Planning Commission interestingly discussed fertilizer in the chapter on the environment, pointing out that while on an average consumption is less than in neighbouring countries, in some crops and regions, "Continuous use of these chemicals is fraught with danger." The problem of chemical residues in agriculture is a general one in developing country agriculture and involves powerful industrial and other groups. Hence the Indian experience could be of general interest. All these august bodies in India wanting reform were in good company. Twenty years ago, in 1985, the Ministry of Finance in its Long Term Fiscal Policy Statement stated:

" Fertilizer is an energy intensive industry and studies show that energy consumption per unit of output varies widely among units of the same feedstock. The incentives to economize on energy

are also weak in a pricing system where retention prices are determined plant wise."

Twenty years ago the path of reform was clearly outlined. It is said that reform is slow and sure. But how slow is slow?

The new policy is based on a group pricing policy based on feedstock. A high Level Fertilizer Pricing Committee (Hanumantha Rao Committee) had also suggested this and this was endorsed by the ERC. But as the published report of the Hanumantha Rao Committee Report explains, in 1983, a Committee on fertilizer pricing had setup a Group under my chairmanship, with Bimal Jalan and Vijay Kelkar as members which had recommended "Group retention prices for naphtha, coal, gas, fuel oil/ LSHS "; "Long term marginal prices were attempted for the new gas based plants" and "a uniform price for urea may be considered, after first moving over to Group retention price to allow plants time to adjust." So to begin with like plants, based on feedstock, would compete and after an adjustment time, they would compete with imports. We had shown then, as the Hanumantha Rao Committee reports us to have said that cost vary with capacity utilization, which is a management responsibility. So good plants would reorganize and compete and bad ones and those who wont adjust would go to the wall. India had the capability to produce fertilizer in

a competitive sequence and reform should consolidate that capability. Twenty years later we say the same thing.

Why did fertilizer miss the bus in the first round of reform in the mid eighties? It is not that the knowledge was not there. The Laboured arguments in the last two paras shows that, Indian economists, Y.K. Alagh, Bimal Jalan, and Vijay Kelkar had produced the counterfactual. This was a period in which around two thirds of Indian industry had been decontrolled in a phased manner. Fertilizer missed the bus for three reasons. The inefficient producers, who would not adjust were politically powerful enough to scuttle the reform. A unit level pricing system gives them the scope to fix outcomes in their favour. A Group level system breaks the nexus between the price fixer and the industrialist, on a one to one basis. After the adjustment you would have to compete with the world and who wants to do that, even if you can. Cold foreign air takes away the comfort of the warm massage. The second was that politicians wanted to tell the farmer that they work for his interest and fight the "robber barons" over their "exploitation and profit". In fact the politicians didn't do anything of the sort and in the two decades that the delayed reform the farmer and the taxpayer paid for their posturing. The third reason is that nobody feels obliged to justify the details of the reform the talk about and an open democracy lets them do it. It is said that long-range marginal price means a very high price. This is not true. It is not

always the cost of the most expensive unit. It is the cost of the most efficient man who will produce extra output. He may use more capital, but he will have lower input costs and his costs have to pay for, for there are no free lunches. But the withdrawal of the State from direct interference in every plant and distribution of fertilizer materials will mean the entry of a whole range of organic materials and sustainable practices being commercially exploited for Indian agriculture. It would go a long way in better use of land. These facts have been known for a long time. At going levels, if the elasticity's of energy use to capacity use and technology the 1985 Alagh Committee had worked out are modified say, 1.0 to 0.02 or 0.04, the savings in energy costs can be up to Rs. 2000 crores annual. Inefficiency is a costly business.

The practical aspect of reform is difficult right now on account of the real reasons that this is a very bad time on energy pricing and the market is distorted. The path of reform was worked out by the Kelkar R Group but instead of taking the rough decision, we have set up another Committee under Dr. Rangarajan. Also agriculture is in the doldrums and so caution will be important and yet reform has to begin. Subsidies to the farmer will have to continue as also energy pass throughs looked at, but reform should not be beyond our ingenuity.

## **Land and Water Development Policies.**

The slow down in irrigation has been noted. Also on-farm investment in land has gone down. The argument that each agro-climatic region has its own solution is well known and so I won't repeat it. Suffice it to say that a Framework Plan with targets, best practice cases, policies and threats anticipated exists, sadly on paper. (Planning Commission, 1989, Alagh, 1991). Its developments have been professionally reviewed, (K. Chopra, CHH Rao and R P Sengupta, 2003). We always complained, but now one of the more experienced hands has called the Nineties the "Golden Decade" for watershed development, JFM's and Participatory Irrigation management). Therefore:

"When those working for Participatory management of natural resources were hoping for strengthening and carry forward participatory approach in 2000-2001 at the time of formulation of the Tenth Plan, there was severe setback as described in the paper "The Fading Shine of the Golden Decade." The paper, annexed to this report, is a cry of anguish. When this paper was presented to Dr. MS Swaminathan and Prof. YK Alagh, they encouraged DSC to organize national level deliberations to voice concern at the dilution and almost reversal of the participatory approach and at the same time present Principles that should

guide the formulation and modification of schemes of NRM by center, states, or donors." (Anil Shah, Bopal 2005).

The Bopal Declaration emerged because stakeholder participation was diluted both in watersheds and in JFMs; the former in the Hariyali Guidelines and the latter in departmental instructions (see the Bopal Declaration, 2005). It consists of Eight Principles for revival and Road Maps for each. These are;

***Principle - 1 : Centrality of Community Based organisations (CBOs)***

Gram Sabha and as its executive committee the Gram Panchayat should be associated with stakeholders' organizations so as to secure required support for the development of local resources. CBOs will represent interest group of primary stakeholders and not be identified with Gram Panchayat. Gram Panchayat will provide enabling support to these interest group and not replace them.

***Principles - 2: Equity***

At the design stage itself program must identify and account for losers and gainers or less gainers. Interventions in the form of differential contribution, customized village level institution building (e.g. gender segregated user-groups), non-negotiable budget provisions, gender-sensitive choice of technology and targeted

delivery options are some of the approaches known to be more effective in reaching out to poorer sections. Therefore it is essential to always inquire while planning, monitoring and evaluating who are the losers, who are the 'less gainers' and how are non-gainers' access protected.

***Principle - 3: Decentralisation***

Flexibility in technical, social and financial norms to suit varying local conditions should be facilitated through a decentralized process, by a broad based organization at the district level. The district level organization must be led by a CEO who is competitively selected for a fixed term on a performance contract basis and is granted full autonomy to deliver results within the limits of the organization's charter, a Governing Board with strong representation from stakeholders and, multi-disciplinary professionals with high competency that can provide support for effective decision-making. Such an organization should provide continuity to administration in decision-making and also ensure timely release of funds as approved in the action plan of the project.

***Principle - 4: Importance of facilitating agency.***

Apart from Watershed programmes, other NRM programmes such as in Forestry and Irrigation do not have clear provisions for any role for such agencies. Under such circumstances, there is a

tendency of CBOs to surrender their roles and responsibilities to public agencies.

***Principle - 5: Monitoring and Evaluation***

These lessons have to be distilled from the field and made available to both policy makers and programme review body in a manner and time-span that it can be instrumental in improving programme policies and reforming or adopting improved procedures. When programmes are monitored in real time and feedback is used for bringing reforms in the field, key functionaries are motivated to "embrace errors" and convert failures into learning opportunities.

***Principle - 6: Training and software inputs***

***Principle - 7 : Sustained momentum of development***

"Initiate productivity enhancement and value addition during the project period and for a few years beyond so that NRM programmes realize full potential of local resources resulting into rising income and prosperity for the rural communities.

***Principle 8: Organizational re-structuring***

A re-launch of existing organizations for sustainable NRM is necessary to bring about change in the work culture towards greater pro-activity and responsiveness to the stakeholders. These organizations, at the national, regional, district, and local

levels need to have much greater operating autonomy, and accountability for performance to their funders and for service delivery to the intended recipients. In many countries, including the U.K., Canada, and Malaysia, greater autonomy coupled with enhanced accountability of Governmental service delivery organizations has generally yielded excellent results. In India, NDDDB offers another example. Besides, after the pace of liberalization picked up in 1991, Government of India owned 240-odd enterprises have been put under a regime of enhanced autonomy, professionalism, and accountability. Their aggregate sales have quadrupled, while their net aggregate profits have increased about ten times. In contrast, the 750-odd enterprises owned by the states, still headed by politicians and bureaucrats with frequently short tenures, have been increasing their aggregate losses by about 17% per annum compounded.

Global experience with public sector organizations indicates that several mechanisms of autonomy and accountability need to be institutionalized for excellence. These include a charter for the organization that clearly spells out its mission, mandate, powers, responsibilities, and autonomy; a competitively selected CEO on a (renewable) contract appointment with considerable operating autonomy though within the organization's charter; a governance board with strong representation of the organization's stakeholders and relevant professionals; an annual MOU that

spells out the performance expectations for the organization and support expectations for the institution to which the organization reports; an MIS that periodically reports to the stakeholders and the controlling institution progress vis-à-vis performance targets as well as other developments; a charter of services that the stakeholders can expect for the organizations and a mechanism to redress grievances should they arise; transparent, merit-oriented human resource management policies (vis-à-vis hiring, emoluments, promotion, etc.); performance linked rewards; 'best value for money' market tests for the services offered, etc.

NRM programmes require relatively highly autonomous organizations at district, state and national level with performance accountability, accountability for service delivery to their stakeholders, and multi-disciplinary competencies, to enable them to design, modify, operationalize, and implement as appropriate the NRM programmes within their respective mandates. At the national level, this organization will take the form of a Board for each major programme. To facilitate excellent contribution to their respective missions, each of them must have a charter that clearly spells out its mandate, mission, powers, responsibilities etc., a CEO who is competitively selected for a fixed term on a performance contract basis and is granted full autonomy to deliver results within the limits of the organization's charter, a governance board with strong representation from stakeholders and relevant

professionals; an annual MOU between the organization and its controlling/funding authority that sets out performance and support expectations on both sides; a management information system (MIS) that provides periodic information on the organization's performance against its MOU commitments to its controlling authority and its stakeholders; a stakeholders' charter that sets out what services the stakeholders can expect from the organization and the mechanism for redressing any grievances they may have; transparent HRM policies; performance-linked rewards; and 'best value for money' market tests.

The relevance of all of this to a group of cooperators is obvious. I will only highlight two principles for you for this is a converted and highly motivated group which should not be harangued. The first is let us forget about the past. We have strong support in influential persons like B.N.Yugandhar, who sat through the whole process and encouraged us to lobby at Delhi with the Planning Commission and others. The Mid term Appraisal sets the right tone and the PM has in his Independence Day address opted for an Authority For Rainfed Regions. Indira Gandhi started the quest for self reliance in foodgrains in 1975 from the Red Fort, Rajiv Gandhi was the forerunner of agro-climatic planning, the origin of the "second green revolution" again in 1986 from there and so the authors of the Bopal Declaration hope for the best. If the New Authority is set up in earnest the beginning of the battle is won.

The second is that the seventh principle since it is new. Watershed Plus says that CBO's have to take the community to the market to take advantage of value addition and prices. This is an addition to the concept box and not easy. It took me quite some time to convince my friend Harnath Jagawat for example that his adivasi girls and boys will have to sell produce for profit, after successfully running lift irrigation cooperatives. For a land and water developer this is a new ball park and needs an effort. Cooperators will see this aspect immediately.

**Are there Alternatives to CBOs, Coops and Producer Associations?**

The only alternative model which I know which is seriously suggested is tushaar Shah's plea that the Chinese experiments in private sector institutions at the village level to run water systems should be the preferred model. Incidentally his model also includes a strong system upstream say upto the distributory as we would call it. Also I think he is underestimating the role of the communist party in directing public - private partnerships in China. My impression after field visits in regions similar to the ones he worked leading a Rajiv Gandhi Foundation delegation in October 2004, is that the local agents are carefully selected and are responsible to higher authorities. It is not an accident that The Mayors of Shanghai go to Beijing at the highest levels.

My view is it is early hours yet and the mixtures of public and private initiatives in strategic organizations is an issue with experimental possibilities. The question of the organizations of small farmers and their links with higher level organizations like input supplying or selling companies, or irrigation systems, is a complex one. Possibility of small farmers to form their own companies, without loss of control on their land, now exists under the law and needs to be explored. Later on, they may be allowed to have joint ventures with big companies, if they so decide. A problem visualized in contract farming is the organization of farmers groups to interact with large companies. One answer is to encourage farmers groups in this context. According to a recent review of such issues by Samar Dutta.:

“Even though several states have introduced parallel cooperative laws, and even though the union law, too, has been made more liberal, yet the pace of reform has been far too slow. Several states have resisted all effort at reform. Farmers in Gujarat, Maharashtra, Tamil Nadu, West Bengal, Punjab, and several other states continue to have few options. Under these circumstances, a new chapter on producer companies was introduced in 2002, to the Companies Act. This legislation was based on a draft produced by a committee under the Chairmanship of Y.K. Alagh. (Y.K. Alagh, 2000). The attempt was to draft the chapter to enable farmers and other primary producers

to set up companies, which resembled cooperatives as closely as possible. Where profits in companies is normally shared on the basis of share holding, producer companies can distribute profits based on patronage of services. Where other companies with several shareholders have to list their shares in the stock market, producer companies do not. Voting rights in producer companies where individuals are members, is on the basis of one member, one vote. However, where institutions are members, voting right is based on patronage of business transacted with the federation. While it is possible for a producer company to wind up its affairs, the register of Companies has the right to "strike off" the name of the company, if he/she does not believe it to be based on mutual assistance among members."

The Producers Company legislation now on the statute book provides an important method of strengthening farmer groups to take advantage of strategic alliances for growth, following the cooperative principle. The Cooperative principle is alive and kicking, if we have the strength to adapt and innovate.

### ***Non-Farm Employment***

It is true that the shift away from agriculture or growth of non-farm employment has been slow in the nineties to the last decade as compared to the earlier decades. But it is clear that decentralized

urbanization can supplement broad based agricultural and rural development. Recent work shows that artisan based responses to national and global markets can be powerful sources of growth and in any case are not an insignificant part of exports. As much as a third of India's engineering exports are attributed to them. 112 towns account for 80% of India's small industry. The success stories have involve training and improvement of inherited community based artisan skills. The communities (castes!) are also engaged in training and skill enhancement, access to larger markets through traditional networks, and technology enhancement, both of production and markets/communication. Support to such clusters can provide widespread employment opportunities.

In Delhi non-farm employment was discovered earlier in this decade with the World Bank studies by Ravallion and his colleagues. Indian scholars had in their own patient ways been discovering the trends which gather fancy outside the country. In a way the wheel gets reinvented. Thus the break in the structural constancy of agricultural share in employment was found out by Sheila Bhalla a long time ago and some of us had shown that more of this was happening in some States, where non-agricultural growth and a diversifying agriculture was taking place. The Planning Commission itself had worked on the econometrics of this as way back as the late Seventies with the earliest rounds

of the NSS and had shown that the demand for labour depends on diversifying agriculture and non agricultural growth. (See Alagh, et.al., 1987). Meanwhile precious time gets lost. The Economic survey last year brings out, agricultural and manufacturing growth was low in the Nineties and employment growth suffered a setback. The macroeconomy has a lot to do with widespread rural and non-farm growth.

In September 2004, I led a Rajiv Gandhi Foundation delegation to China. With an introduction from the Chair Person of the Foundation, the delegation met some outstanding Chinese scholars and was given access to areas off the beaten track. The developments in the Shengzhens and Shanghai are old hat. What is not so widely known is the policy debates China is going through and the developments in the so called backward areas. Of course towns like Hangzhou in the exploding eastern coast are growing fast, but Cities like Chengdu, Leshan in the "backward West" and of similar size of Pune, Ahmedabad and Lucknow are going through massive investments and growth as also the explosion of infrastructure investments. The growth of manufacturing investment and output is again old hat, but what is again less known that a rapidly growing non-agricultural economy is pulling the agricultural economy up by its bootstraps, inspite of all the problems the rural economy in China is facing. Rural economies, subsisting on a low yielding cereal economy, are now

growing many crops, visible to the naked eye, more so in the so called backward west as compared to the eastern seaboard which given its resource endowments is still the rice bowl. The demand for these rapidly diversifying areas is sustained by the high growth of purchasing power and the improvements in transport infrastructure, bringing larger markets in the purview of the rural economy.

One of the very healthy signs now is the frank discussion of problems and statement of alternative views. One saw this for the first time for example, in the Chinese Academy of Sciences discussion of environmental problems for the Johannesburg Conference, which differed from the official views and now this is happening in economic and social policies. It is known that in the second half of the nineties the agricultural growth rate fell in China, but over the last two and a half decades the fast growth of the non-agricultural economy led to a rapid expansion of demand for agricultural products. In the backward areas also the spin off was there.

Jianjin Liu of the Institute of Rural Development Research of the Chinese Academy of Social Sciences is an acknowledged expert on China's non-farm economy and like his Indian counterparts a sceptic of the statistic of achievements given by Ministries. But he has worked patiently on the agricultural Census brings out the

China's non-farm employment which was much lower than twenty percent two decades ago, stood at twenty five and a half percent in 2001 and is at twenty seven and a half percent in 2002. Two and a half decades ago China stood behind India in non-farm employment in rural areas as Pravin Visara had shown. In the decade of the nineties India stood still in structural transformation and China went ahead. It is only if our manufacturing growth picks up from the last decades five percent to the earlier eight percent or higher that we can keep pace with the kind of transformation rural China is going through.

There are many myths on the 'Chinese' rural transformation path. For example as in India, there is intense debate on subsidized credit to the 'Town and Village enterprises', the famous TVE's. The Chinese economist, Tan Quicheng has argued that high risk lending causes 'adverse selection and moral hazards of banks and credit cooperatives lead to soft budget constraint in the township and village enterprises' and in a very familiar manner to us brings out its consequences. The debate is on and my impression is that the reformers are in the drivers seat. I must report, however, that CMP Advisory Committee member Jayaprakash Narayan of Loksatta who was a member of my delegation holds that the earlier policies still play a major role in driving change. The big debate in China is on the systems to control migration. Many influential Chinese economists feel that

relaxation of migration controls from rural areas to urban configurations will trigger the next round of more widespread and efficient growth. This is a much vexed question and the Chinese 'solutions' to it will be of great interest to us.

### **Some Features**

S.P. Kashyap (World Development, 1992, ILO, 1998) found that a strong centralized promotion policy with product identification, financing, protection and technology support, does not work. Here the strategy is to help those who help themselves, by access to support of local efforts at market information access, working finance, standards setting, skill enhancement and family welfare and worker health measures. The employment and poverty reduction results of such development are dramatic. In Gujarat's case poverty levels have gone down from around 38% in 1972 to 18% in 1997. High in migration into Surat has been noted.

Much the same kind of approaches are necessary in diverse fields like education, health and I believe in solution to urban problems. There is widespread interest in the "cluster approach" to development. I believe that successes achieved in linking community skills to larger markets, which is what the method is all about should be attempted to be crafted in the social arena also. In some the links are obvious. For example a good human

resource development strategy helps in enforcing standards, which are a precondition of large scale entry into world markets. Sometimes recycling helps in meeting environmental standards, for example in leather clusters. The synergy here has not been used as much as it should be.

### ***Integrating employment***

The EGS is caught in religious debates in Delhi. According to one Canonical proposition, an employment guarantee is anti reform. If Sonia Gandhi pushes you to the wall, agree to a minimum of area, population and income coverage, be done with it and lets get on with disinvestment. To another school, EGS is the pure solution which should not be muddied with economic or development ideas, Irrigation, crop diversification, rural infrastructure, trees and ponds are all plan programmes. EGS must stand alone, not polluted by such mundane consideration.

I will not get into details, since I have written extensively in books and plans on this and there is a sense of fatigue and deja vue; but at the level of first principles the issues have to be posed sharply for the details are known. When the late Rajiv Gandhi presented to parliament on agro-climatic plan, he was also seriously concerned about the employment issue. There is an extensive literature on this, but in 1989 when the two earlier employment

programmes (NREP and RLEGP) were merged the explanation of the strategy was as follows :

"The two employment programmes were merged in 1989 also an attempt was made to permit local communities to undertake the kind of land development and water management works which have been described earlier as central to the efforts of turning around the sub regional economies. The Manual of the Jawahar Rozgar Yojana clearly brings out these intensions as follows :

The renovation of important community works such as irrigation tanks is also permitted. Similarly items like land shaping, field channels, etc. on private lands which are part of a project to improve the productivity of an area taken as a system of land and water management (both in watersheds and command areas) can be undertaken" (Alagh, 1991, p.128).

On 12 October 1989, Rajiv Gandhi was to announce the integration in black and white.

"During the next five years irrigation waters will be made available on an assured basis to an additional one crore hectares of land in the command areas of irrigation projects. The authorities will be held responsible for reaching water to farmers in assured quantities and at the right time. Also ten lakh tubewells and dugwells are to be constructed every year. And five million

hectares will be covered annually for the programme of desilting and maintenance of village tanks, beels, bunds and ponds. Second the productivity of unirrigated land is to be enhanced through effective watershed development and in situ moisture conservation. This programme will extend to 50 lakh hectares during the Eighth Plan." (Government of India, 1989a)

For some time this integration was followed through, for example by Yugandhar's Innovative Rozgar Yojana, but was soon given up by the successor government. When a Bretton woods package was implemented it was also declared that the Eighties was a period without a vision of operational reform strategies. The employment schemes were separated from the growth strategies and both atrophied.

Surjit Bhalla is quite right in saying that the employment levels of rural areas are low in the aggregate, although for a season, for an age group, or a sex or in a sub region they can be high. Also so called low levels still involve millions of persons. The late Pravin Visaria had in a classic paper separating the static from the dynamic, made the point that the poor are too poor to remain unemployed. Employment policies have to be integrated with the growth process. Otherwise there will not be enough money, the wage rate can be below the poverty line and corruption will remain because there will not be a constituency for the products of labour.

It is only if stakeholders are involved that the employment programmes will succeed.

It is wrong to say that the problem of malnutrition is not there with us. It is true that those who say they are hungry are less, but malnutrition is still serious. The real cereal prices which showed a decline in the Seventies and Eighties registered a rise in the Nineties and recorded a downward trend after 1999-00, an increase in cereal price reduces significantly the calorie intake of the poor as is brought out by available food price elasticity estimates. A recent study has shown that a one per cent increase in cereal price would reduce the calorie intake of the very poor by 0.84 per cent in rural areas and 0.72 per cent in urban areas.

In the case of the bottom 30 percent of the population, cereal and food energy intake increased at a very moderate rate in the preceding two decades but stagnated or declined in the 1990s depending on the inclusion or exclusion of 55th NSS Round i.e., 1999-2000.

There has been as we saw a substantial diversification of the consumption basket of the poor in favour of non-cereal food items such as milk and milk products, sugar and gur and other food items. These tendencies should not be a major cause of concern if the intake levels were nutritionally adequate. However, the per

capita intake of the bottom 30 per cent, at around 1700 K.Cal./day, falls far short of the norm.

Micro nutrient deficiency is common among the population, more so in the vulnerable groups such as women and children. These two groups are more prone to certain deficiencies than the adult male population. Iron deficiencies are widely prevalent among the pregnant women. As per the latest National Family Health Survey (NFHS)-2 survey, about half of the pregnant women suffer from iron deficiency and consequent anemia - 35 per cent suffer from mild anemia, 15 per cent from moderate and 2 per cent from severe. Iodine deficiency is common among the population living in the sub-Himalayan and other hill regions of the country. Vitamin-A deficiency, which leads to preventable blindness in children, is more common among the children from the rural households.

The most important problem that needs immediate attention is low energy intake of the bottom 30 per cent of the expenditure class. The problem can be rectified by increasing agricultural productivity in rained areas, making available food at an affordable price through the public distribution system (PDS), and food-for-work programmes. The micro-nutrient deficiency can be cost-effectively rectified by supplementary nutritional programmes to the children

and to the expectant and lactating mothers. The EGS can provide a focus for this.

Apart from the inadequate food consumption, the other important factors influencing nutritional status are : high incidence of gastro-intestinal and respiratory infections; and behavioral factors such as faulty breast - feeding, and early weaning practices. The percentage of children suffering from severe malnutrition declined from 15.0 in 1975-79 to 6.4 in 2000-2001. If moderate and severe malnutrition is taken together the percentage of children suffering from malnutrition declined from 62.5 to 53.3 percent during the same period.

Child malnutrition is generally high among households where mothers are illiterate and have poor nutrition levels. Birth order and leafy vegetable consumption are the other important factors and so also is medical care during pregnancy. To reduce malnutrition, concerted efforts should be made to bridge the food energy gap of the poor. This has to be supplemented with efforts to eradicate micro nutrient deficiency. Bio-technology may be helpful in developing food enriched in micro nutrients.

Poverty is one of the crucial factors in denying basic human rights to health, education, housing, food and housing to substantial sections of the population. A look at the relative magnitudes of

improvement in the composite level of Rural Development during the two decade period 1981-2001 as a whole indicate that the maximum improvement had taken place in the case of Kerala, which has consistently held the highest rank in terms of its Rural Development. Maharashtra, Gujarat, Orissa and West Bengal follow Kerala. Least improvement is evident in the relative level of Composite Rural Development in case of Himachal Pradesh, followed by Punjab. J&K, Assam, Haryana Bihar and Uttar Pradesh experienced the lowest magnitudes of improvement in their level of rural Development during 1981-2001.

### ***Infrastructure, Natural Resources and Development***

Kerala emerged to be the top-ranking state in physical infrastructure development in 1971-72 followed by Tamil Nadu, Punjab and Haryana. The index indicated poor infrastructure availability in M.P., Himachal, Rajasthan, Orissa and Assam. Over the years the infrastructural facilities have improved in all the states and inter-state variability in infrastructural development has declined. The hierarchal position of states has also seen some changes with Tamil Nadu occupying the first rank followed by Kerala, Punjab and Andhra. In 1997-98, the Physical Infrastructure Index (PII) was above the all-India level for five other states also, namely, Haryana, Maharashtra, Karnataka, U.P.

and Gujarat. The remaining eight states have relatively poorer infrastructural availability.

The linkage between infrastructure development and use of water is much stronger than with land use. The transport network and irrigation infrastructure matter most, but in combination with prices, markets and credit availability. Major effect of roads in rural India does not work through its impact on private investment, but rather on marketing and distribution opportunities, and also on reduce transaction costs relating to agricultural activities. It is obvious that the programmes of rural infrastructure build up in the next five years supported by the National Advisory Council of the Government's CMP deserve full support.

The non-farm sector needs more of focused attention from extension agencies like DICs. In order to meet the growing demands of the sector, DICs themselves need to be upgraded. As District Enterprise Promotion Agencies (DEPAs), they should be playing an effective role in assisting micro-enterprises in the rural areas (The Abid Hussain Committee). NABARD's experiment of District Rural Industries Promotion Scheme (DIPs) that envisages placement of a Coordination officer in each of the five identified districts has yielded good results. In these areas, the flow of credit and micro non-farm sector has registered higher levels of growth. However, these efforts need to be expanded and intensified.

Simultaneously, the rural entrepreneurship programmes and rural industries cluster development programmes have to be encouraged and given a fresh impetus.

### ***Conclusion***

Cooperation and Group action comprise the strategic framework for collective action for enhanced confidence, assertion, bargaining, negotiations and welfare of all concerned especially the small, the disorganized and the disadvantaged groups of a stratified society. The need for organized action is it through formal cooperatives or informal but functionally critical sel-help groups or other community-based organizations, assumes greater significance in a market dominated rural economy. Such groups/ cooperatives are expected to take care of the economic as well as the welfare goals of the rural population even while maximizing the principles of social justice, there is need for a professional approach by such organizations as the cooperatives. It is in this context that HRD strategies aimed at professionalizing the cooperatives assume even greater significance and urgency.

More needs to be done to provide greater powers to empowering the farmers' and artisans' organizations. Experience tends to suggest that at ongoing market prices, many of the cited NGO experiments may not be financially viable, more so for those

peasants who have a slender resource base. Therefore, selective non-market forms of interventions are also required especially because capital markets are poorly developed.

Generally, markets are efficient methods of getting across to farmers and, other things remaining the same, they should be used as the preferred form of delivery of inputs or output collection and processing units. Second, development of markets and communication and processing infrastructure must receive high priority in rural reforms. In fact, the heart of institutional reforms should revolve around a policy regime which uses fiscal and investment packages that unleash the power of properly functioning markets for generating higher incomes and employment and, wherever necessary, use direct intervention methods also.

Financial institutions have to design structures such that community collateral is possible for viable projects. Self-help financing groups are only one such group. Land and water development groups, local infrastructure projects in road or communication sectors etc., would be other examples.

The institutional question here is that of the development of socio-economic rules and incentives and disincentives, so that the people's organizations and structures are in position to foster

replicability of success stories. Second, what are the policy and macro implications of supporting these strategies. For developing the structure or incentive and disincentive systems for implementing the designs, we can begin with taxonomy of complementarities of policy rules at different levels of policy making, like no level can spend more resources than they have access to. But resources, which are short or posing constraints at national or global levels, are elastic at local levels. However, their mobilization requires policy changes at higher levels.

The practical task then is to :

- a) Foster improved capital markets and banking systems in areas with growth potential;
- b) Develop systems which look at non-conventional lending procedures like community collateral for cooperative/community projects, lending through the weather cycle, lending through the watershed project cycle;
- c) Developing lending procedures for infrastructure projects relating to the concerns of value addition and distribution with reference to first stage agro-processing, artisan based goods and services for local, regional, national and global markets.

The importance of policies for alternative distribution channels so that there is genuine competition in input supplies is not foreseen in policy reform at all. Neither the Cooperatives, non-profit organizations nor partnerships between private sector, Coops, NGOs or local governments are foreseeing this aspect. Therefore, the Alagh Committee (2000) presented a draft law for cooperatives to set up Producer Companies with corporate alliances. It saved the cooperative principle by providing for one share one vote even while envisaging competition, notwithstanding the reservations of the Independent Cooperative Initiative declared in the Anand Declaration in December 2000. This legislation has been passed and its potential has been discussed and outlined above. More generally, the legal and administrative system for such hybrid institutions and strategic alliances between producers and other groups with profit making objectives is not generally provided and so they face tremendous teething problems. Therefore, at the national level:

- a) There has to be identification of agricultural and artisan based strengths which need to be strengthened to compete in local, regional, national and global markets;
- b) Such areas of strengths will need support of development of market based infrastructure which is generally lacking;
- c) Policy champions are required to be in position to help such experiments when they run into teething problems;

- d) Institutions which signal global negative trends and help in evolution of responsive policies in harmonized manner are needed;
- e) Economic reform has to be deep rooted, otherwise policies of structured subsidies and support to those who help themselves are not possible;
- f) Demand driven technology policies are required to converge with such initiatives.

## References

Alagh, Y.K., S.P. Kashyap, 1987, Policy Modelling for Planning in India, in S.I. Cohen, P.Cornillise, R.Teekens and E.Thorbecke, The Modelling of Socio-Economic Processes,

-----., 1991, Indian Development Planning and Policy, WIDER STUDIES IN DEVELOPMENT ECONOMICS, Helsinki and Delhi, Vikas.

-----.,2000, Report of the High Level Committee on Legislation for Corporatisation of Cooperatives, New Delhi, Ministry of Company Affairs

-----.,2001, Working Out Power Economics, Indian Express, Jan.16

-----.,2002, Agricultural investment strategies: prioritizing land and water : Regional Office for Asia and the Pacific.

-----.,2002a, Emerging Institutions and Organisations: Some Aspects of sustainable rural Development, in Chopra, K., et.al., below: reproduced in G.C. Malhotra (Ed.), Fifty Years of Indian Parliament, New Delhi, Lok Sabha Secretariat, 2002, pp.491-504

-----.,2002b, Poverty Food Security and Human Security, Rajiv Gandhi Foundation, Special Issue, Journal of Global Management.

-----.,2002c, Water : Source of Food Security, World Food Day lecture, 15th October, FAO, Bangkok.

-----.,2003, Agricultural Price Policy in an Open Economy, Tenth Dharam Narain Lecture, Delhi School of Economics and Institute of Economic Growth, Forthcoming Indian Economic Review.

Alagh, Y.K. (2004) "State of the Indian Farmers: A Millennium Study, An Overview", Academic Foundation, New Delhi.

-----.,2004a, Policy Without theory: India in a Globalizing Economy, Economic and Political Weekly., April 24, 2004, pp. 1748-1753.

-----.,2005, Indian Economic Strategies After Doha, forthcoming CH H Rao Festschrift; earlier version in Seminar on the Ideas Institutional Nexus, CIGI and UNU, Buenos Aires.

-----.,2005a, Economics of Forestry in India, forthcoming, Anvesak

ADB, 2000, Rural Asia: Beyond the Green Revolution, Manila, ADB.

ADB, 2000 Rural Asia: Companion Volumes (I-III), Oxford, University Press.

Alexandratos, Nikos, 1995, World Agriculture Towards 2010, an FAO Study, Chichister, Wiley Basu, D.N., and G.S. Guha, Agro - Climatic Regional Planning in India, vol. 1 and 2, New Delhi, Concept.

Chopra, K., C.H. Hanumantha Rao, and R.P. Sengupta, 2003, Water; Resources, Sustainable Livelihoods and Eco-System Services, Delhi, Concept.

M. Desai, Development and Nationhood, 2004, Oxford.

Development support Center, 2005, The Bopal Declaration, Bopal

F.A.O., 1978-81, 1982, Agro-Economic Zoning Atlas, Rome, FAO-UNESCO.

F.A.O., 1993, Agriculture Towards 2010, Rome, FAO, for final published version see, N. Alexandratos.

Government of India, 1989, Agro Climatic Planning : An Overview,  
New Delhi, Planning Commission (authorship, Y.K. Alagh, et.al.)

-----.,1989a, Statement on Agricultural Package Made in  
Parliament, 12 October 1989.

-----.,, 2001, Ministry of Commerce and Industry, WTO:  
Agreement on Agriculture; India's Proposals, New Delhi

Lele, U., N. Kumar, Y. Alagh, N.Saxena & K. Mitra, 2000. Forestry  
in India: an evaluation. Washington, DC, World Bank.

Gulati., A., and A. Sharma, 1994, Agriculture under GATTS: What  
it Holds for India, Economic and Political Weekly, July 16, p. 1861.

Planning Commission, July 2005, Mid Term Appraisal of Tenth  
Five Year Plan, 2002-2007

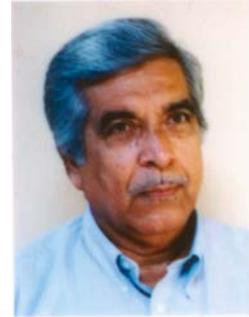
Pursell, G. and gulati, A., (1993), "Indian Agriculture: an Agenda  
for Reform", Policy Research Working Paper, WPS 1172, World  
Bank, Washington.

Sen, Abhijit (2002), "Report of the High Level Committee on Long  
term Grain Policy", Ministry of Consumer Affairs, Food and Public  
Distribution, New Delhi.

Sen, Abhijit and Bhatia, M.S. (2004), "State of the Indian Farmers:  
A Millennium Study, Cost of Cultivation and Farm Income",  
Academic Foundation, New Delhi.

## **Dr. YOGINDER K. ALAGH**

### **- A profile**



Hon'ble Dr. Yoginder K. alagh Presently Chancellor, Nagaland University and Vice Chairman of Sardar Patel Institute of Economic and Social Research, Ahmedabad is a wizard in Economics, an able administrator and scholar of international repute. Born on February 14, 1939, at Chakwal (India), he obtained Master's Degree in Economics from University of Pennsylvania and the University of Rajasthan. He holds Doctoral Degree in Economics from the University of Pennsylvania. He was Professor and taught Economics at various Prestigious Universities and Institutions such as University of Rajasthan, Indian Institute of Management, Calcutta, University of Jodhpur, Swarthmore College and the University of Pennsylvania.

Dr. Yoginder K Alagh held important portfolios as Minister namely Power, Planning & Programme Implementation and additional charge of Ministry of Science & Technology. At present a Trustee of the Rajiv Gandhi Foundation, Dr. Yoginder K Alagh, held

several coveted positions at national and international level. He has been Member, Planning Commission (in the rank of Minister of State). He has been Chairman, Bureau of Industrial Costs and Prices; Ministry of Industry and Secretary to the Government of India. He has been Chairman Agricultural Prices Commission of India, Director, Sardar Patel Institute of Economic and Social Research, Ahmedabad, Adviser to the Planning Commission of India and Chairman of the Economic Group of Indian Institute of Management, Calcutta.

He has seven books and over a hundred articles to his credit published both at home and abroad. He is a regular columnist for Indian Express and writes about agriculture and rural development.

He has been awarded the prestigious VKRV Rao Award in Economics in the year 1981.

**Dr. Y.K. Alagh held various positions at National Level :**

- President of Gujarat Economic Association;
- Member, India council of Social Science Research;
- President, Indian Econometric society, and Indian Society of Labour Economics;
- Member of University Senates at Jodhpur, Vallabh Vidyanagar, Ahmedabad;
- Vice Chancellor, Jawaharlal Nehru University;

- On the governing bodies of Indian Institute of Management; Calcutta and the Giri Institute of Development Studies;
- President of the Human Development Institute and Shirdi Sai Rural Institute, Loni;
- Fellow, National Academy of Agricultural Sciences, Delhi;
- He is currently Chairman of Giri Institute of Development Studies.

**Dr. Alagh is a well known personality and his International Assignments are listed below :**

- Senior Fellow of CIGI in Canada
- World Innovation foundation, UK
- Senior Adviser consultant to FAO, UNFPA, ILO, ESCAP World Bank and UNDP.
- Senior Fellow, World Institute of development Economic Research, United Nations University, Helsinki.
- He was the Coordinator for South Asia Technology Network of the Commission of European Communities at Brussels.
- He has travelled widely and represented india in a number of high level official delegations and seminars.
- He was Member of the Council, United Nations University and also Chairman, Scientific Steering Committee of the International Social Science Programme of UNESCO.

- Visiting Professor at the prestigious Sc. PO of Paris in 1995.
- Distinguished Fullbright Lecture in U.S. in 1994
- Eminent Shastri Lecturer in Canada in 2000
- He is on the Governing Body of International Institute of Labour Studies, Geneva

**His Association with Important committees**

- Chairman of Committee to reposition the CACP after WTO and a Committee on fertiliser price reform.
- He chaired the Expert Group of Cauvery Dispute, constituted by the Prime Minister of India.
- Consultant to the Mekong River Commission.