

FOOD REVOLUTION - A WIN WIN FOR FARMER AND CONSUMER

was the subject of the speech delivered by Mr. M.S. Banga, Chairman, Hindustan Lever Limited, at the Annual General Meeting held on Friday, June 22, 2001

A Crisis of Growth

The slowdown in the economy is of serious concern to everyone in Government, industry and every other sector of the economy. Our GDP growth target for the Tenth Plan is 7.7%, rising to 8.1% in the subsequent one. Today we are at a 6% level, which is itself below the current Plan. Even more worrying is the fact that our growth rate has been trending down for the last 3 years.

The sectoral components of this slowdown are very telling. Agricultural growth has dropped to 0.9% from an average of 3.9% in the 1980's and 3.3% in the 90's. Industrial growth too has slowed to below 6% from 6.6% in the last decade.

I believe there is an urgent need to lift overall GDP growth sustainably by addressing a central issue – the slowdown in rural incomes.

The Unequal Importance of Agriculture in India

In the last decade, we have fairly successfully remodeled the industry and services sector, through policy and legislative reform. The recent growth in Information Technology is the result of Indian technological excellence and cost-competitiveness, well supported by the necessary policy and legal framework. However, impressive as it is, the IT boom has directly impacted less than 500,000 people – a very small proportion of our total population.

A high rate of economic growth is sustainable in the long-term only if it is broad-based and benefits a majority of our people, thereby creating a virtuous demand led growth cycle. While agriculture contributes less than a quarter of India's GDP, over 70% of India's billion-strong population is dependent on it. This is why it is an important potential demand base for industry and services, in addition to being the supply base for food and raw material. Already, almost half the demand for FMCG goods, and black & white television sets, pressure cookers, table fans, sewing machines, watches and other consumer durables comes from rural consumers.

Agricultural growth therefore has a strong multiplier effect across the economy. Our modelling shows that a modest incremental growth of 3% in agriculture would lead to another 2.6% growth for the manufacturing sector, taking overall GDP growth up by 1.7% – closer to the 8% mark and our Tenth Plan ambitions.

After the success of the Green Revolution, national initiatives in agriculture have, however,

been dispersed and ineffective over the last couple of decades. In this context, the recently announced National Agriculture Policy is timely. It is now essential for both Government and industry to take some bold initiatives to ensure its implementation and bring about another structural change – **a Food Revolution.**

China: A Relevant Example

Every country must adopt a growth strategy tailored to its country advantages, population needs and resource availability. We would benefit by looking at how another large, diverse and developing economy has leveraged agriculture for overall growth. A lot has been written about the success of China in attracting FDI and making infrastructural investments. However, not much mention is made of its major strides in agriculture, making this a true growth driver for the rest of the economy.

Agriculture is a major force in China's economy just like in India. 70% of China's population lives in rural areas and is economically active in agriculture. In the 90's, China's agriculture grew at 5.1% p.a, increasing incomes across a very broad population base. The number of rural poor declined to 50 million, bringing a large number of new consumers into the economy and driving demand for industrial goods and services. Agriculture thus also played a major role in driving industrial growth and overall GDP.

Today, China's agricultural sector accounts for only 17% of GDP (as compared to 24% for India). Despite that, it has been accorded the top priority in the National Economic Development agenda in their new millennium blueprint upto 2010. While many of the specific measures that China took to achieve high agricultural growth are not relevant in the Indian context, one aspect of their strategy is very compelling. They have used the twin planks of productivity improvement in agriculture and the creation of a thriving food processing sector to build a vibrant rural economy. This has helped contain urban migration, in addition to accelerating agricultural growth and therefore driving overall GDP growth.

The task for us in India lies in achieving a similar end result through appropriate strategies designed for our situation.

The Current Paradox of Indian Agriculture

Let us look at today's well-publicised situation on the foodgrain front. On the one hand, we have godowns overflowing with grain but on the other, large sections of our population still have one of the lowest per capita calorie consumption. Simply put, this is because these consumers cannot afford to buy food at the current prices.

Historically, the Government has tried to increase agricultural incomes by increasing the minimum support price or subsidies. But that is no longer possible, as even at the current prices, food is not affordable to a large section of people. In fact, high food stocks have led to farmers often realising significantly lower prices.

If Prices cannot be increased any further, the only option to protect and increase farm incomes, is to impact the other variable in the equation – i.e. Volume or Consumption.

Total agricultural income =

Quantity of consumption	x	Price per unit quantity
↓		↓
We need to increase this		This cannot be increased
to increase rural incomes		any more

The focus of our efforts, therefore, has to be on driving Consumption.

Increasing Food Consumption

Our economic modelling clearly demonstrates that the consumption of wheat amongst the lower income groups will increase by over 25%, if the price was to be reduced by Rs 2/kg reflecting the level of unfulfilled demand. This is also borne out by the 1997 NSS statistics, where 42% of our rural population and 49% of urban population are shown to receive less than the accepted daily calorie intake norm – and these proportions have virtually remained the same in the last decade. This increase of 25% is equivalent to an incremental demand of 41 mln tons of cereals.

Not only do these people not eat enough, they also do not eat enough variety. Cereals contribute over 80% of the calories of people in the lowest income segment, decreasing to about 50% as we move up the income curve. There is thus a need to increase the range of foods available, including value added cereals, fruits and vegetables, to improve overall nutrition. **The benefits in terms of health, vitality and productivity are obvious, and cannot be underestimated.**

The key question therefore is – how do we increase food consumption?

A short-term imperative is to liquidate the excess stock of foodgrain that we are currently carrying through appropriate schemes like “Food for Work” and increasing the amount of food released through the PDS for the “Below Poverty Line (BPL)” segment. This would not only help meet the demand gap that exists today, but also bring down the interest and other carrying costs, estimated at Rs 11,700 cr p.a.

It is clear, however, that structural change is required in the medium and longer term. Burgeoning input costs lead to burgeoning support prices, which as we have discussed, result in food being even further out of reach for many of our lower income citizens. This is in effect a “Cost-Plus” model, which neither takes into account what the consumer can afford to pay, nor indeed rewards cost-saving and productivity improvement measures.

The HLL Experience: From Cost-plus to Challenge Cost

I would like to share with you the Hindustan Lever way of working, as an option to this "Cost-Plus" model. Being a highly consumer focussed company, we start with our target consumer and determine the price that she is willing to pay for the benefits that we are selling. This must be affordable and competitively the best value for her money. We then fix the margin that we should be making on that offering, which would be in line with our corporate ambition and shareholder expectations. The target consumer price less the target margin gives us the "Challenge Cost" that we have to achieve through our expertise in R&D, manufacturing and supply chain.

Let us see if we can apply a similar philosophy to agriculture. I have taken wheat as an example, as we are in the business of wheat flour and other wheat-based products, and so are quite familiar with it.

The Economics of Indian Wheat

India is the second largest producer of wheat in the world with an output of more than 70 mln tons. And yet, our average productivity is a mere 2.7 tons per hectare. This is significantly lower than the best in the world, which is in the region of 7 tons/ha. In fact, even in Punjab, we achieve only 4.3 tons/ha. There is thus significant potential to improve productivity and hence reduce the cost per ton.

What then limits the Indian farmer from achieving this potential? Most aspects of the problem are well known. The farmer is **mostly uneducated, often illiterate, and does not have access to best practices in agronomy**. Some other contributory factors are:

Low incomes and limited capacity to invest in inputs: At current productivity levels and support prices, even a Punjab farmer earns a net profit of only Rs. 10,000 per ha. The absolute earnings of an average farmer in the rest of the country, where the yield is only 60% of Punjab and the average landholding is less than 1 ha, will obviously be much lower. Finance is also very expensive for the small farmer through the village money lending system. These factors limit his capacity to invest in the requisite inputs, even though the investment will pay back many times over in terms of increased output.

Absence of support: In today's unpredictable agricultural situation, the farmer, already burdened by expensive credit, has no crop insurance to fall back on. Nor does he have other support facilities like demand projections for crop planning, soil testing and weather forecasting to guide planting, inputs and harvesting.

Inefficient supply chain: The supply chain from the farmer's field to the consumer is also quite inefficient. The Market Committee legislations of various States mandate that wheat be auctioned/sold under supervision only at a designated mandi. At the village level, the

wheat crop is consolidated by the “kacha aadiya”, to make up a truck load etc, adding on a commission. Further, 2% - 5% of the crop is lost in spillage and transport by the time it reaches the mandi where, once again, fees and commission charges have to be paid. The transportation and storage facilities at all stages are very inefficient leading to significant degradation in quality, and losses to spillage, pests and insects. Instead, if the food processor was allowed to buy wheat directly from the farmer, he could save at least Rs.500/ton of wheat through reducing commissions and transit/storage losses.

The Way Ahead: A Road Map

I would now like to propose a way forward by outlining some solutions.

These are in three areas:

- Focusing on Precision Farming to improve farm productivity even within the current land holding pattern and other constraints
- Creating a structure to facilitate growth of a vibrant food processing industry
- Identifying various enablers for this model to work

I shall now briefly discuss each of these.

Precision Farming

It is commonly believed that productivity increases can now only come from either increasing irrigation or mechanising aggregated land holdings. In fact, there are many steps that can be taken even by small farmers for productivity improvement, by merely adopting good agronomical practices.

I would term this Precision Farming in our context – whereby a farmer adjusts farm practices to match the variation of soil and terrain across time and the area of his plot, rather than following the current practice of a “one size fits all” approach, which manages crops at the lowest common denominator.

Let me illustrate this with the same example of wheat. Significant increases in productivity have been demonstrated by ensuring the **timeliness and method of sowing** and also with the **timeliness of irrigation** to coincide with critical stages in the development of the seed. Further, **soil analysis** has been proven to lead to yield improvement by tailor-making the exact cocktail of fertiliser type and micro nutrients. Similarly, **plant protection** through the use of need based weedicides, disease and pest sprays also have proven effects on output.

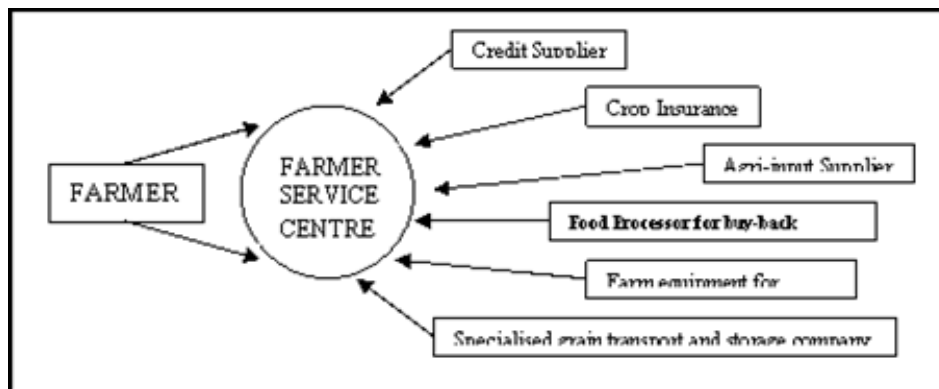
However, given the profile of our small farmer, it is crucial for us to create a sustainable structure for the dissemination of knowledge and construction of infrastructure to support these practices. I believe that industry can play a meaningful role in this as explained next.

A Partnership Web for Mutual Benefit

Our small farmer needs access to best practice in Precision Farming, affordable credit, crop insurance, farm inputs, and modern farm equipment in order to increase productivity. He also would benefit from direct access to the market.

As explained, he is uneducated, with marginal resources, often dependent on expensive village credit. There are also several intermediate stages between him and the food processor – the “kacha aadiya”, the mandi, and other commission agents. This supply chain structure is inefficient and expensive as it adds commissions and fees at every leg. It also necessitates several stages of wasteful transport between these points instead of a single movement between farmer and food processor, resulting in high costs of unnecessary storage and associated losses.

To overcome these hurdles, I would propose that we create a partnership web between the farmer and agri-input companies, banks, insurance companies, grain handling and storage companies, and food processors. We would do this by establishing Farmer Service Centres with an appropriate radius of operation. The proposed model would look like this:



The Farmer Service Centre would be run as a private enterprise between the food processor and a number of other input providers such as a bank, fertiliser/seed producer, farm vehicles manufacturers, and so on. Either the food processor or agri-input provider could take the lead in establishing this model.

The benefits of this model are very significant:

- Agri-inputs would be made available directly to the farmer. They would now be more affordable without the wholesale and retail margins.
- Credit and insurance would be available to the farmer at reasonable rates.
- The Farmer Service Centre would provide extension services to ensure that the farmer has access to best practices in Precision Farming techniques.

- The food processor would access the farm produce directly. This would eliminate all commissions and fees and reduce transport costs.
- Specialised grain handling equipment, transport and vertical storage would be installed reducing both costs and spillage/ losses to pests.

Disintermediation in the supply chain would also release people from the roles of village commission agents and small traders. They could either find new avenues in the agroindustries that will come up under this model, or as indeed has been demonstrated in other countries, they will be absorbed by the growth in the industry and services sector, without necessarily adding to the problem of urban migration.

A Win-Win for Farmer and Consumer

Such a model will certainly drive down the cost of production of our agricultural produce. I have modelled the reduction possible by applying this to wheat and give this in the table below:

	Rs/Ha
Yield/Productivity Improvement (at Re. 1 lower procurement price)	6600
Agri-input costs: Disintermediation savings	200
Village commissions savings, etc	400
TOTAL	7200
Reduction in farmer's cost/kg	Rs 1.50
	Rs/T
Transportation to mandis/bagging	300
Mandi fees / commissions	400
Storage and transportation savings	300
TOTAL	1000
Reduction in supply chain cost/kg	Re 1.00
Overall reduction in cost of wheat	Rs 2.50

It is, therefore, **possible to reduce the cost of wheat by Rs 2.50 per kg**. This benefit can then be shared between the farmer and the consumer. If we were to go back to our "Challenge Cost" model and reduce the price of wheat to the consumer by Rs 2, then consumption would increase by 25%. The farmer's efficiencies would result in increased production and increased offtake, and add 20% to his income, despite a lower procurement price.

Indeed a win-win for the farmer and the consumer – the two most important people in the food supply chain.

Enablers Required for the Model

For the model to work, I have identified several key enablers. These are in four broad areas as outlined below:

- Redirection of Government effort
- Amendments in the legal framework
- Rationalisation of fiscal levies
- Mandatory packaging of food products

I shall now describe each of these briefly.

Redirection of Government Effort

It is worth remembering that our historical agricultural policy framework was developed at a time when India was acutely short of food. Since then we have made great strides through the Green Revolution. It is important for us now to reorient all our policies from managing shortages to promoting efficiencies and value addition.

Therefore, for mature crops like wheat, rice, sugar, oilseeds etc, the Government should move from playing a regulatory role to a supportive one. Specifically:

- Remove all restrictions on movement and storage of foodgrains to create a Common Indian Market
- Improve information availability and create a Futures Market to ensure that crop planning is more demand driven
- Redefine the role of agencies like the FCI to help administer the above and perhaps be the nodal agency for exports. It is worth noting that this improvement in productivity and efficiency will enable us to export crops like wheat without losing money. The Australian Wheat Board (AWB) is one example of an entity which has re-invented itself in keeping with the changing needs of the agri sector. Post World War II, the AWB was set up to ensure adequate food supplies and control prices. Over a period it has progressed to being a corporate entity which undertakes farmers' support activities like marketing wheat abroad as a "single window" and providing mechanisms for efficient risk management.

In the case of emerging sectors like processed fruits and vegetables, seed production, organic farming, floriculture – all sectors which play to our country advantages – the Government should take on a proactive role in encouraging investment in R&D, manufacturing, market and infrastructure development.

Amendments in the Legal Framework

There are several areas where our legal framework needs both simplification and amendment across central, state and local legislation. Accordingly, it will be crucial for us to evolve a broad based consensus on the direction to be pursued. Some key areas for change are highlighted below:

- The Market Committee legislation of various States currently limit produce from an area to be sold through the mandi in that area only. These will need to be dropped to facilitate free movement across the country as well as direct purchase by a food processor from the farmer.
- Forward contracts should be permitted, enabling the food processor to contract for a crop even before it is sown.
- Enforceability of contracts between farmers or farmer groups and the food processor should be enhanced to protect both farmer and food processor equitably.
- Harmonising our food laws and housing them under one Ministry is essential. Today, we have several laws that apply to food products (Fruit Products Order, Prevention of Food Adulteration Act, Vegetable Oil Products Order, Standards of Weights and Measures Rules etc).

As these were framed separately, they often have contradictory requirements. In addition, they are controlled by different Ministries, both at the Centre and in the States, leading to enormous operational difficulty. We would greatly facilitate the growth of food processing by housing the administration of all food linked legislation under one Ministry as done in many other countries. This Ministry should also then be charged with combining them into a single harmonious legislation.

- Reorienting the laws to facilitate innovation and value addition is equally important. Currently, our laws prescribe a very restricted regime for the formulation of food products by stipulating all the ingredients and the levels at which these can be used. New ingredients are essential to innovation, and getting these approved is complex and slow. Just as we have aligned many of our other legislations with international standards, I would suggest that we bring our food laws in line with the international Codex prescribed for food trade and widely followed in the world. This would greatly enhance innovation, while continuing to protect adequately the Indian consumer.
- Refocus enforcement more on to ensuring compliance rather than prosecution. For example, I would recommend the formation of a National Certifying Agency to ensure that hygiene and safe practices are followed by manufacturing units rather than allowing prosecutions to be filed by any official as is the case presently. In any case, all Government Laboratories used to scrutinise the operations of the food industry must at least be certified by the National Accreditation Board for Laboratories.

Rationalisation of Fiscal Levies

Processed foods are primarily derived from agricultural commodities, which often incur multiple taxes at various stages such as Market Fee/Mandi Fee, Octroi/Entry Tax/Cess, Sales Tax, Turnover Tax, Central Excise, etc. This multiple taxation has a cascading effect on prices. In addition, there is a wide variation in the level of taxes across States (from 4% to 20%). This creates a barrier to the free flow of materials from the farm to the factory and ultimately to the consumers.

Further, packaged goods attract higher rates of Sales Tax while the same food products sold loose or unpackaged are either exempt or subject to very low rate of taxes. This encourages sale of loose commodities which are often sub-standard and/or adulterated.

A simple solution would be to do away with such cascading taxes and replace these, if necessary, with a uniform additional excise duty to encourage free and easy movement of goods within the country, as has been done with tobacco and textiles.

Mandatory Packaging of Food Products

Packaging of food products should also be progressively made compulsory (as has been proposed for edible oils) to ensure hygienic availability of food and eliminate the possibility of adulteration. This will also greatly catalyse the development of a food processing sector.

This, then, is the road map for the future – a series of steps which would truly revolutionise agriculture in India, by improving its productivity and creating a vibrant food processing industry, leading to sustainable benefits for both the farmer and the consumer.

Examples from Around the World

Various versions of this model have been developed and upscaled successfully elsewhere in the world. One such case is the orange juice industry in Brazil.

Brazil is the world's largest orange juice producer, with a 50% global market share. The country advantages are its favourable climate and lower costs of production, but the learning for us is in the structure they have used to convert this into a winning model.

Multi-lateral partnerships exist between the farmers, processors, banks and other support agencies, governing the entire span of operations based on long-term contracts. Supplementary services like packaging, storage and transportation have developed around

the basic crushing industry, to make the supply chain from production to shipment truly seamless.

The agricultural sector, therefore, has been the nucleus which has spawned the growth of a huge industry, through a network of partnerships, ably supported by Government policies and laws.

Need for Urgency

A good monsoon will temporarily alleviate the suffering for some of our farmers who were badly affected by drought in the last couple of years. However, given our current policy framework, even this will only add to the growing stocks of foodgrain, without adding significantly or sustainably to either farm incomes or indeed increasing consumption.

The model that I have outlined will bring together various stakeholders in the food supply chain and create a partnership web for mutual benefit. This would increase agricultural productivity, which would in turn increase farm incomes and make food more affordable, at the same time. Increased farm incomes will impact the majority of our population, which would in turn drive demand for the rest of the industry and services sector, leading to a sustainable growth cycle. Equally, increased consumption of food will improve the quality of life and productivity of our population. The creation of a vibrant food processing industry would add further value, generating employment and prosperity. I have also identified the key enablers that need to be put in place by the Government for this model to work successfully.

Urgent and effective intervention is required to make this a reality. We as a country have responded to crises, through concerted action born out of national consensus. The success of the Green Revolution and the White Revolution is indeed proof of this. Now, we need a Food Revolution to foster a virtuous cycle of regenerative, broad-based growth. We at Hindustan Lever are deeply committed to making this happen.