INDIAN AGRICULTURE - FARMERS

INDIAN AGRICULTURE
- "Successful"
- Ranking First in the world in Milk Production.
- Ranking Second in the world in Respect of Wheat and Rice.
- Ranking Second in the world in Respect of Vegetables.
- Ranking Third in the world in Production of Cotton, Groundnut and Fruits.
- Ranking Fourth in the world in Production of Sugarcane and Potato.

INDIAN FARMER
- Neglected, Unhappy, Shattered & Suicides

"Indian peasant has an amazing capacity to bear famine, flood, disease and grinding poverty. If, he can not endure longer, he would uncomplainingly lie down in thousands and die. This was his way of escape".

- JAWARLAL NEHRU
  First Prime Minister of India
OUR ASPIRATIONS

1. Develop India as an Agricultural Super Power.

2. Establish Independent Commodity Farmers Organizations.

3. To get Budget Allotments in proportion with Farmer’s Population.


5. Develop Farmers as Knowledge Workers and bring about Social and Economic Equality.

6. To secure for the Farmers, economic growth and social security.

7. To develop Agri-culture as Agri-business.

8. To modernise Agriculture with the use of Mechanization, Bio-Technology and Information Technology.

9. To organize MPs & MLAs Farmers Forums.

10. To work in association with the CII, ASCI, MANAGE & ICRISAT.
RE-ENERGIZING AGRICULTURE IN INDIA
(Akkineni Bhavani Prasad)

INDIA is having the largest irrigated area in the world and 51% of the total land of India is arable land. The nature has provided a good climate, and if, 50% of the rainfall received in our country is properly recharged into the land and properly managed, our agriculture production will be doubled. But, unfortunately, we are unable to utilize the natural resources available with us in a more scientific manner and derive the best of the benefits. Nearly 37 million Hectares of cultivable land is yet to be cultivated. This 37 million hectares of land is more than the cultivable and cultivated land of four countries, i.e., Pakistan, Nepal, Bangladesh and Japan, and the total population of 400 million are living in these countries.

AGRICULTURE is the cultural habit of the people in our country and is traditionally being followed from generation to generation. During 1950’s, i.e., immediately after independence, we were producing about 45 to 50 million tonnes of food grains and cereals, and the same was not sufficient to meet the food and nutritional security of the people. We were importing wheat and rice under PL 480 scheme. The then Govt. of India has given the PRIORITY for food production, so that the country could be self sufficient in the food sector.

Today, our country is producing about 220 million tonnes of food grains & cereals, and the Government proudly declares that we are self-sufficient in the food sector. The growth in the food grain production from 45 to 50 million tonnes in 1950’s to about 220 million tonnes to-day is mainly on two accounts. The first one being the use of high yielding and hybrid seeds along with the use of chemical fertilizers and pesticides etc. and the second being the enhanced irrigated area under projects like NAGARJUNASAGAR.

If, we compare the 5 yearly averages of food grains and cereals production in 1950-55 and 1965-70, i.e. during the pre-green revolution period, the growth rate was 2.51% per annum. During the period of green revolution, i.e. 1965-70 to 1980-85 the growth rate was 3.12% per annum. During the post green revolution period, i.e. 1980-85 to 1995-2000, the growth rate was only 2.39% per annum, which is lower than the pre-green revolution period. During the 10 year period of 1990-91 to 2000-2001, our annual growth rate of food grains has been only 1.06%, which is much lower. But, during the above years, the annual growth rate of our population was much higher.

Today our population is more than 100 crores and is likely to get stabilized at 157 crores in the year 2050. More so, 65% of the population eke out their living from Agriculture sector only. We are also to note that nearly 270 million people, are classified as people living below poverty line, and engaged in agricultural sector.
<table>
<thead>
<tr>
<th>Year</th>
<th>Population (MILLIONS)</th>
<th>Population GROWTH RATE (%)</th>
<th>Food grain and cereals production</th>
<th>Growth rate of food grains and cereals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>361.1</td>
<td>-</td>
<td>45.8</td>
<td>-</td>
</tr>
<tr>
<td>1961</td>
<td>439.2</td>
<td>1.98</td>
<td>69.6</td>
<td>4.3</td>
</tr>
<tr>
<td>1971</td>
<td>548.2</td>
<td>2.24</td>
<td>96.6</td>
<td>3.3</td>
</tr>
<tr>
<td>1981</td>
<td>683.3</td>
<td>2.23</td>
<td>119.0</td>
<td>2.1</td>
</tr>
<tr>
<td>1991</td>
<td>846.3</td>
<td>2.16</td>
<td>162.1</td>
<td>3.1</td>
</tr>
<tr>
<td>2001</td>
<td>1027.0</td>
<td>1.95</td>
<td>185.7</td>
<td>1.4</td>
</tr>
<tr>
<td>2020*</td>
<td>1300.0</td>
<td>1.19</td>
<td>279.0</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Source: Ministry of Agriculture. Prospects for India’s cereal supply and demand by 2020 by Bhall et al.

* Projected

But, during the past 2 decades, the policies adopted by both central and state governments, and the low volume of funds released and utilized in their annual budgets to Agriculture sector, has led the sector into a crisis. It is disheartening to note that thousands of farmers’ suicides have been reported in the media, even from the advanced agricultural states like Andhra Pradesh and Punjab.

Hence, we have to plan and execute a scheme of things to meet the food and nutritional security of the people as well as the well being of the farm labourers, farmers and village artisans at the grassroots level.

I suggest the following steps be initiated by the Governments to make the agriculture to be sustainable and with a proper growth:

1. **SOIL HEALTH:**

   At present 90 to 95% of our farmers do not know much about the SOIL HEALTH of the lands owned by them from generations and in the absence of this knowledge, how a farmer can plan a crop in his land with proper scientific approach?
It is suggested that awareness campaign on soil health be conducted on a large scale. The level of Chemical fertilizer use must be replaced by organic material, so that the soil health is improved.

ii. CROPPING PATTERN:

At present, mono cropping is being practiced in several states and particularly paddy and wheat crops are preferred. It is suggested that cropping pattern be changed and the farming community be provided the necessary awareness in implementing diversified crop pattern.

iii. SEEDS:

We all know that quality seed is an important input for better productivity. At the moment, the national seed corporation, the state level seed corporations and the various research organization existing in the country, are able to provide about 25 to 30% of the quality seed required by the farmers. The remaining 75% or 70% of the seed is provided by the private seed industry or seed exchanged between the farmer to farmer, in which case the germination efficiency or the productivity are not sufficiently known.

It has appeared in the media several times that he farmers have lost heavily due to the supply of spurious/under quality seeds by the seed dealers/companies. The existing legislations are not farmer friendly and thereby, the culprits are able to escape from any kind of stringent punishment.

Hence, the legal framework in respect of the production and sale of seeds must be strengthened. Secondly, the state governments are agricultural universities in the country must undertake suitable steps to supply quality oriented seeds as required by the farmer.

iv. CAPITAL FORMATION - AGRICULTURE SECTOR:

The investments in the sector as well as the shares of agriculture in the total GCF (Gross Capital Formation) has declined in the last 2 decades. The shares of Agriculture in the total GCF has been reduced to half, from 15.4% in 1980-81 to 7.08% in 2000-2001. Also, the public investment has come down from Rs. 7,301 crores in 1980-81 to Rs. 4,992 crores in 1990-91. These figures clearly indicate that the Governments have not given the PRIORITY towards the Agriculture sector.

A similar declining trend could be seen in the plan outlays. The share of irrigation in the total plan outlays have been reduced from 16.33% in the 4th five year plan to 6.77% in the Tenth Five year plan.
<table>
<thead>
<tr>
<th>Plans</th>
<th>Total Plan Outlay</th>
<th>Agriculture &amp; Allied Sectors</th>
<th>Irrigation Outlay</th>
<th>% Share of Agriculture &amp; Allied Sectors &amp; Irrigation in Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Plan (1951-56)</td>
<td>2378</td>
<td>354</td>
<td>455.1</td>
<td>34.0</td>
</tr>
<tr>
<td>II Plan (1956-61)</td>
<td>4500</td>
<td>501</td>
<td>589.6</td>
<td>24.2</td>
</tr>
<tr>
<td>III Plan (1961-66)</td>
<td>8577</td>
<td>1089</td>
<td>1101.2</td>
<td>25.5</td>
</tr>
<tr>
<td>Annual Plans (1966-69)</td>
<td>6625</td>
<td>1107</td>
<td>1032.7</td>
<td>32.3</td>
</tr>
<tr>
<td>IV Plan (1969-74)</td>
<td>15779</td>
<td>2320</td>
<td>2577.7</td>
<td>31.0</td>
</tr>
<tr>
<td>V Plan (1974-79)</td>
<td>39426</td>
<td>4865</td>
<td>4224.4</td>
<td>23.1</td>
</tr>
<tr>
<td>Annual Plan (1979-80)</td>
<td>12177</td>
<td>1997</td>
<td>3753.4</td>
<td>47.2</td>
</tr>
<tr>
<td>VI Plan (1980-85)</td>
<td>97500</td>
<td>5695</td>
<td>12315.6</td>
<td>18.5</td>
</tr>
<tr>
<td>VII Plan (1985-90)</td>
<td>180000</td>
<td>10525</td>
<td>19675.7</td>
<td>16.8</td>
</tr>
<tr>
<td>Annual Plans (1990-92)</td>
<td>123120</td>
<td>7256</td>
<td>9569.3</td>
<td>13.7</td>
</tr>
<tr>
<td>VIII Plan (1992-97)</td>
<td>434100</td>
<td>22467</td>
<td>36648.8</td>
<td>13.6</td>
</tr>
<tr>
<td>IX Plan (1997-2002)</td>
<td>859200</td>
<td>42462</td>
<td>63681.6</td>
<td>12.4</td>
</tr>
<tr>
<td>X Plan (2002-07)</td>
<td>1524639</td>
<td>58933</td>
<td>103315.0</td>
<td>10.6</td>
</tr>
</tbody>
</table>

Source: Planning Commission

The continuous decline in the plan outlays on both agriculture and allied sectors and irrigation put together shows the share has come down from 31.0% (IV Plan) to 10.60% (10th Plan)

v. **SUBSIDIES:**

At present subsidies are being given on Electricity, Fertilizers, Food etc. totalling about Rs. 70,000 crores per annum. This is definitely at the cost of creating new irrigation system and rural infrastructure only.
a. **POWER SECTOR:** The subsidy provided to agriculture power connections in the country has increased from Rs. 7,335 crores in 1992-93 to Rs. 30,462 crores in 2001-2002. Here, I would like to add that the abnormal transmission and distribution losses as well as commercial theft of power are added to agricultural sector by the State Electricity Boards to set right their records.

b. **IRRIGATION SECTOR:** In order to make our country a self sufficient one in food sector, IRRIGATION PROJECTS were given PRIORITY during the 1st to 4th 5 Year Plans. The Government used to collect water cess from the farmers as a Revenue to the Irrigation sector.

During 1977-78, the revenue collection as water cess covered 3/4th of the maintenance expenses of the irrigation projects and canals etc. By 1987-88, the revenue collected barely met the maintenance expenses to the extent of 1/4th of the expenditure and the trend continued further. As a result, the overall losses have jumped from Rs. 433 crores (1977-78) to around Rs. 7,000 crores in 1994-95 and is deteriorating further.

c. **FERTILIZER SECTOR:** The use of chemical fertilizers have shown a steep rise in the past 2 decades, i.e. raising from 6.06 million tonnes in 1981-82 to 18.07 million tonnes in 1999-2000.

Accordingly, the subsidy on fertilizers has shown a growth from Rs. 505 crores in 1980-81 to Rs. 13,250 crores in 1999-2000. Out of this subsidy, more than 70% goes to fertilizer industry which is inefficient with outdated manufacturing systems.

*I strongly oppose the use of word “SUBSIDY” towards agricultural sector and on the other hand, it should be named as “PRODUCTION INCENTIVE”, since the farmer is engaged in food production. Also, the Power, Fertilizer and Irrigation sector subsidies be reviewed and proper corrective steps be initiated for their efficient functioning.*

vi. **RURAL INFRASTRUCTURE:**

It is estimated that the farming community is losing around Rs. 50,000 crores on account of poor infrastructure at grassroots level.

<table>
<thead>
<tr>
<th>Food Stuff</th>
<th>Production Million Tonnes</th>
<th>Wastage Million Tonnes</th>
<th>Amount of Wastage (Rs. Crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Grains</td>
<td>220</td>
<td>22</td>
<td>20,000</td>
</tr>
<tr>
<td>Fruits &amp; Vegetables</td>
<td>103</td>
<td>34</td>
<td>30,000</td>
</tr>
</tbody>
</table>

Source: Prime Ministers Council on Trade & Industry, April, 2000
It is suggested that top priority be given for providing funds to the infrastructure at grassroots level.

vii. AGRI CREDIT & CROP INSURANCE:

The Govt. of India through Reserve Bank of India has laid down a stipulation that out of the total lending of any Bank, 40% is to be distributed on prime lending and out of this, 18% is exclusively for agriculture sector. But when we could see the performance of commercial banks last five years, they have not exceeded 11 or 12% to the farm sector.

The agriculture credit is available from commercial banks, Cooperative Banks, RRBs and local moneylenders. It is estimated that only about 25 to 30% of the land holders alone are getting institutional finance and the balance farmers are dependent on private lending only. The entire lot of tenant farmers denied of institutional finance and are dependent on private moneylenders only.

It is suggested that,

a. The entire agricultural land holdings be provided with institutional finance, in a phased manner, say over a period of next 3 years by opening cash-credit account for each holding.

b. The rate of interest on agricultural lending should be restricted to a maximum of 6% simple interest.

c. In the event of natural calamity, if a farmer looses his crop, the entire interest portion be waived off and principal amount only be rescheduled for repayment in the following 3 to 5 years. In this case, the declaration of the district administration be taken as an authority for effecting the rescheduling. Also fresh loans be sanctioned.

d. Crop insurance claim should be settled before 31st March of the Corresponding financial year taking into consideration of the yields arrived at by the COMMISSION ON AGRICULTURE COSTS AND PRICES (CACP) for that year.

SOCIAL RESPONSIBILITY OF THE FINANCIAL INSTITUTIONS

No doubt the financial institutions are to function on commercial lines, so that they can extend their services for longer and continuous periods. It is seen in the media that several of the banks are giving a dividend ranging from 50% to 100% to their share holders.
It may please be noted that when some banks are in financial crunch, the Govt. of India has provided around Rs. 22,000 Crores to recapitalize a particular bank to survive and carry out the business. Similarly, when UTI which is managed by professionally qualified experts, and suffered a financial loss, the Govt. of India has come up to their rescue and provided funds to the tune of Rs. 13,000 Crores.

In view of the experiences given above the financial institutions have a moral and ethical responsibility to assist the farmers in their endeavour.

viii. SOCIAL SECURITY TO FARMER:

It is just unfortunate that the people working in the agriculture sector (65-70%) are not provided with any social security as in the case of the Government Employees, Industrial Employees and even the M.L.As and M.P.s.

It is strongly demanded that a social security scheme be brought forward to cover the people working in the agriculture sector as a matter of right.

ix. W.T.O. IMPACT: India became a Member of W.T.O. around 1994, and till now the farming community was not provided with any information in regard to the impact of W.T.O. regime on Indian Agriculture, and how to convert the same as an opportunity.

As of now, the Quantitative restrictions are over, and our markets will get opened up by 2005 March or 2006 March to the Member Countries of W.T.O.

\textbf{In order to convert the W.T.O. regime into an opportunity, the following steps are suggested:}

\begin{enumerate}
\item[a.] The farmers should be provided with full information on W.T.O. implications and prepare them to face the challenge.
\item[b.] Agro-processing units be established at grassroots level, so that, our Agro Products can be exported to international markets.
\item[c.] If this programme is not initiated by us, the foreign brands will swamp our markets and the farmers will lose their livelihood.
\end{enumerate}

In addition to the above, there are other areas like marketing, remunerative prices etc. which are to be given utmost importance at local level to ensure that agri-sector becomes a sustainable avocation to millions of people of grassroots level.
INNOVATIONS
BUILDING COALITIONS FOR PRODUCER - MARKET - PROCESSOR LINKAGES
A CASE STUDY OF SORGHUM FOR POUlTRY FEED

Project Title: "Exploring Marketing Opportunities through a Research Industry and Users Coalition: Sorghum Poultry Feed"

Project Leaders: Dr Belum V S Reddy, Special Project Scientist, ICRISAT
Mr P Parthasarathy Rao, Economist, ICRISAT

Managing Partners: ICRISAT, Patancheru, India.

Coalition Partners: Acharya NG Ranga Agriculture University (ANGRAU), Department of Livestock Production and Management, Agricultural University, College of Veterinary Science AP, India; Regional Agricultural Research Station, AP, India;
Federation of Farmers Associations (FFA) AP, India;
Andhra Pradesh Poultry Federation, AP, India;
Janaki Feeds, AP, India.

Funding Agency: DFID-CPHP (R8267 & B0337)

India is the second largest producer of sorghum in the world. Sorghum in India is grown in rainy season (June-October in around 3.8 million ha) as well as in post-rainy season (September-January in around 5 million ha). In Andhra Pradesh the rainy season sorghum is grown on 0.30million ha, producing 0.29 million tons of grain. Generally, resource-poor small farmers with less than one-hectare land in the semi-arid regions grow sorghum. The lion share of its cultivation is under subsistence farming mainly grown to meet household requirements of food and fodder. The rainy season sorghum is often vulnerable to grain deterioration due to grain mold attack, making it unfit for food. To enhance the market opportunities for rainy season sorghum the project was conceived by ICRISAT through an innovative approach of building coalition with all potential stakeholders.

Four months prior to the official approval of the project, the potential stakeholders met informally to discuss the objectives of the project and the probable approach to realize them. They expressed their keen interest in the 'Coalition Building' - a new idea for the conventional scientists and poultry industry.

Four improved sorghum cultivars from the kharif 2002 harvest were selected and dispatched for preliminary Poultry Feed Trials (PFT) at ANGRAU. The grain lots of these cultivars were analyzed for tannins, mycotoxins, amino-acids and other chemical traits. The threshed grain mold severity of these grain lots was also assessed. The preliminary PFT (broilers) with iso-energy feed formulations were completed. A Steering Committee chaired by the representative from feed
industry (Janaki Feeds) was formulated to closely monitor all aspects of PFTs and buying-in of the results by poultry industry. During the review and planning workshop held at ICRISAT on 7 Oct 2003, Janaki Feeds indicated the need for conducting some additional PFTs, which is more useful for poultry industry. Based on the perceptions of poultry producers and recommendations of Steering Committee, ANGRAU completed the feed trial i.e. part-by-part replacement of maize with sorghum on broilers. To improve the skin and shank colour of birds, Stylo was also included in one of the treatments. Conducting this additional part-by-part replacement trial was a result of rigorous discussions and continuous electronic media dialogue between the coalition partners that underpins the importance of coalition building and partnership projects. The trial results were disseminated to a larger group of poultry producers / feed manufacturers through a stakeholder’s mini-workshop on 19 January 2004 that received wide acceptance. The research results proved that maize can be totally replaced with sorghum grains in poultry feed resulting better economy production for the poultry producers.

The small sorghum growers (74 in number) from four villages of Mahabubnagar and Ranga Reddy districts of Andhra Pradesh were selected and supplied with the improved sorghum cultivars for kharif 2003 sowings. To ensure that the farmers follow the recommended package of practices, a leaflet printed in local language (detailing the cultivars performance and package of cultivation practices) was provided along with seed bag. To upscale the project, more than 500 poor sorghum growers spread over 12 villages in the target districts were selected and supplied with the improved cultivar seed in this rainy (kharif) season (2004). The ICRISAT - private sector consortium was involved in supplying the seed to participant farmers. The private sector is now aware of the project activities and will take the lead for large-scale dissemination of seed for sustainable sorghum production after the project ends. This ensures the role of private sector seed industry in project implementation.

Preliminary attempts inlinking farmers with the feed manufacturer were successful. The poultry feed manufacturers were ready to buy the surplus grain and that the farmers’ groups agreed to bulk the surplus grain from individual farmers. Through coalition system all the partners are confident of achieving the outputs of the project working jointly at a faster pace. Coalition allowed to capitalize on the synergies from sharing of skills from different disciplines with each member playing his/her role in the project.

Decisions in the coalition building were taken on a mutual consensus basis based on the discussion of the problem or issue. The project manager/leader pushed through the activities/decisions reached by consensus without dominating or imposing his ideas and this also helped stakeholders to feel their individual importance in the project progress. The clarity of the roles of coalition partners helped them to devote their time exclusively to the domain of their work, thus allowing sharing of responsibility. The partners worked together to address the common goal of poverty alleviation among poor sorghum growers. The coalition system provided an opportunity to
contribute knowledge in their respective fields. Collaborative working arrangements in this research project for achieving the stated boosted the confidence in all the coalition partners.

The scaling-up of the project further, in terms of benefiting more number of farmers groups by providing storage facilities, credit, technology etc. and linking them to the feed manufacturers is necessary to realize the benefits of this innovative marketing linkages. All the partners felt the need to continue the project; primarily to ensure that a substantial market is created for rainy-season sorghum owing the acceptance of sorghum-based poultry rations by poultry producers.

The collective decisions made with the partners through continuous electronic media dialogue and regular review meetings provided opportunity for all the partners to reflect upon the issues and make necessary modifications on the way the coalition works. The coalition system, thus, helped to present the right kind of incentives to benefit the poor sorghum farmers, feed manufacturers, poultry producers, and the scientists.

All partners were assured of the benefits from this project independently.

The crop breeder gets feedback on the cultivar traits preferred by the farmers.

The poultry scientists could develop new sorghum-based feed formulations for poultry in lieu of maize, which will benefit the poultry producers as well a poor farmers.

The poor sorghum farmer could benefit from the collaborative help/guidance from researchers, and from improved cultivars cultivation by implementation of the project at gross root level.

The poultry feed manufacturers/poultry growers could be benefited from knowledge on poultry feed formulations and assured supply of sorghum grain, an alternative to maize.
Farmers want separate budget from next year

By N. Vidyasagar/TNN

New Delhi: More than forty farmer’s associations from across the country, in a joint declaration, have demanded a separate agriculture budget starting financial year 2005-06.

They have asked the Centre to include agriculture in the concurrent list, which is now a State subject.

Hundreds of farm leaders, influencing over 58 million agriculturists, met in New Delhi to chart out a roadmap to generate farm sector from the clutches of the government. The farmers’ conclave have participation from federation of farmers’ association in A.P., Karnataka, Rajasthan, Gujarat, UP, Tamil Nadu besides associations representing amda, apple, banana, grapes, gaua growers.

They have also made a plan to integrate all agriculture-related issues dealt by commerce & industry, food processing and water resources under the umbrella of agriculture ministry. They have also asked the government to disinvest in public sector (especially oil and telecom) and reinvest in irrigation.

The farm leaders have met finance minister P. Chidambaram and apprised concerns from farm community.

“We have demanded for the separate agriculture budget since 65 per cent of the population is dependent on agriculture for their livelihood. We can make the sector self-sufficient. It should be given the same importance as Railway or Union Budget,” said P. Chegal Reddy, who heads the Indian Farmers & Industry Alliance. “The state governments have no money to spend on agriculture. It’s time for the Centre to intervene and bring agriculture under concurrent list.”

Farm leaders representing associations from various states said they have no political affiliation and that their aim is to make participation of “real farmers” in the decision-making process of policy-related agricultural issues.

The government’s talk in last six months has not convinced farm leaders. While they appreciate, government voicing concern over agriculture, nothing much has changed. Many complain that nothing has been done about doubling farm credit. Also, the promise that farmers will get cheap loans has no come into effect till date.