

## **ANALYSIS OF INDIAN AGRICULTURAL SECTOR AND POSSIBLE MEASURES TO STRENGTHEN IT**

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### **Abstract**

*India is known for its vast expanse of agricultural land and its biodiversity of crops and cash crops grown in the nation.*

*Important crops such as rice, wheat and cash crops like tea, cotton are grown for domestic as well as for export to various countries. 60 percent of the total population of India is involved agricultural practices, though in an unorganized manner. Every year thousands of Indian farmers commit suicide due to several factors like government policy failure, market depreciation, crop failure, debt etc.*

*Strict measures for stopping this epidemic for our country are being taken but at a very sluggish rate and also the aids provided by the government only benefit the big land owners and often even don't reach to the small farmers.*

*A unique channel of work-survey-improve is needed to ensure proper growth of agricultural sector.*

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## **AGRICULTURE**

The science of practicing farming, namely cultivation of soil for growing crops and rearing of animals to provide food, wool, and other products.

## **INDIAN AGRICULTURE**

The history of agriculture in INDIA dates back to Rigveda. Today, India ranks second in world for farm output.

Agriculture is demographically the broadest economic sector and plays a significant role in the overall socio-economic fabric of India.

## **INDIAN AGRICULTURE: ECONOMIC CONTRIBUTION**

- ❖ Agriculture continues to be the backbone of Indian economy.
- ❖ Agriculture sector employs 54.6% of the total workforce.
- ❖ The total Share of Agriculture & Allied Sectors (Including Agriculture, Livestock, forestry and fishery sub sectors) in terms of percentage of Gross Domestic Product is 13.9 percent during 2013-14 at 2004-05 prices. [As per the estimates released by Central Statistics Office]

The crop production of china is lesser than India and despite of holding the rank of the country with largest population it is the top second wheat exporter of the world(India being third ).

Cases of farmer suicides in India, as of year 2014, were 5,650<sup>1</sup>

Although GDP contribution of agriculture in India is higher than China and U.S. , still agricultural sector of India is highly unorganized.

Organizing and planning agricultural sector of India would decrease its poverty ratio and hence would enhance per capita income of the country.

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<sup>1</sup> Available at: <http://ncrb.gov.in/ADSI2014/chapter-2A%20farmer%20suicides.pdf>

China and U.S. lead the world in agriculture only because of use of clever planning and regularizing its sector for maximum productivity. Modernization of Indian agriculture should be the prime concern for the government now

China has lesser agricultural land than India and China also possesses the largest population in the world, still it has lesser cases of farmer suicides.

## **PROBLEMS FACED BY INDIAN FARMERS**

### **1. Agriculture is unorganized activity today**

Indian agriculture is largely an unorganized sector. No systematic institutional and organizational planning is involved in cultivation, irrigation, harvesting etc.

Institutional finances are not adequately available and minimum purchase price fixed by the government do not reach the poorest farmer.

### **2. Most farms are small and economically unfeasible**

The ground reality is that majority of the farmers in India own as little as two acres of land. Cultivation on such small area is not economically feasible. Such small farmers have become vulnerable.

In many cases, the farmers are not even the owners of the land, which makes profitable cultivation impossible because significant portion of the earnings go towards the payment of lease for the land.

### **3. Middlemen and economic exploitation of farmers**

Exploitation by the middlemen is the reason put forth for not getting the best price for the produce of the agriculturists.

### **4. Government program do not reach small farmers**

Government has implemented agricultural debt, waiver and debt relief scheme in 2008 to benefit over 36 million farmers.

However, most of the subsidies and welfare schemes announced by the Central and State governments do not reach the poor farmers. On the contrary, only big land lords are benefited by those schemes.

#### **5. High indebtedness and exorbitant interest rates**

The root cause of farmers taking their lives is the increase in their indebtedness and debt burden.

Exorbitant interest rates have to be declared illegal and the government has to take strict measures against greedy money lenders. Easy access to institutional credits has to reach the small and marginal farmers, without cumbersome procedures.

#### **6. Real estate mafia**

We can see even fertile land best suited for agricultural purpose being sold to real estate people, who prepare plots and give attractive advertisements to sell at exorbitant price. There is need to implement strict measures to prevent land grabbing.<sup>2</sup>

### **SOLUTIONS TO THE PROBLEM**

#### *1. Multiple crops*

Cultivation of multi crops such as coconut, turmeric, pine apple, banana, apple, papaya, ginger will yield profitable results to the farmers.

#### *2. Special agricultural zone*

Just like industrial zone, there is an urgent need to establish special agricultural zones, where only farming and agriculture related activity should be allowed.

#### *3. Need to modernize agriculture*

By introducing farm techniques which guarantee a definite success, an increase in youth participation on agricultural fields is economically possible. This can be attained only by implementing new technologies. Research efforts should continue for the production of crops with higher yield potential and better resistance to pests.

Technological advancement in agriculture should be passed down to the small farmers.

Where the existing crops would not do well under drought and weather conditions, the farmers should be helped to shift to cultivating crops that would be easy and economical to cultivate.

#### *4. Educate the farmers*

Many farmers in India are not aware of crop rotation. Though education in urban areas has improved a lot, the government has ignored the same in rural areas in general and in agriculture sector in particular. This is the reason why farmers are not adequately aware of the various schemes provided by the government.

#### *5. Clubbing of small fields may help*

Several farmers who own small piece of land can join together and combine all small fields into one large chunk. This may help in variety of ways.

#### *6. Need for meaningful crop insurance policies*

Crop insurance is must and the claim should be settled easily under the supervision of the district collectors.

Traditional crop insurance depends on the direct measurement of the damage suffered by a farmer to determine his/her pay-out. However, field loss assessment is often not feasible or expensive, since most of our farmers are small holders.

Index based insurance, on the other hand, responds to defined parameter.

Index based insurance has the advantages that it is transparent and all the insurers within the defined geographical area are treated equally. It has low operational and transnational costs, while also ensuring quick pay-outs.

#### *7. Need for better water management*

Irrigation facilities that are currently available do not cover the entire cultivable land. Apart from the areas where perennial rivers flow, most of the agricultural fields do not have irrigation facility.

In most cases, it is not the lack of water but the lack of proper water management that causes water shortage. Improved modern methods of rain water harvesting should be developed.

Water management can be made more effective through interstate co-operation on water resources, where surplus water from perennial rivers can be diverted to the needy areas.

Connecting the rivers throughout the country will solve this problem. Construction of National Waterways will improve the irrigation facility, which in turn can save the farmers, if the monsoon would fail.

#### 8. *Alternate source of income for farmers*

Small farmers should be encouraged to develop alternative sources of income and the government should take up the responsibility for providing training to the farmers to acquire new skills. In drought affected areas, the government should start alternative employment generation programs to reduce the dependence on agriculture as the sole source of income. Such programs should be standardized.

Farmers should be enabled to divide their activities into three parts. One for regular crop production, one for animal husbandry or fisheries and another for timber production. These activities complement each other and also alternate sources of income of farmers can be ensured.

#### 9. *Need for national weather risk management system/disease alert system*

Facilitating national weather risk management system that alerts farmers when there is a danger of extreme weather, would go a long way in reducing losses in agriculture.

Value added services like pest and disease alert applications, in combination with the weather forecast would equip the farmers to handle and manage their crops better.

For example, Water Watch Cooperative, a Netherlands based organization, has developed a disease alert system that sends an alarm to farmers, if probability of a pest/disease would be detected.

Similarly, system that detect the amount of water to be provided to a field based on the field water content, biomass and rainfall probability, would aid in optimization of water provision to the crop and ensure efficient crop management.<sup>2</sup>

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<sup>2</sup> Available at: <http://www.newsgram.com/the-farmer-question-6-main-problems-of-indian-agriculture/>  
[Published on Sunday, July 5 2015]

## **SOLUTIONS BY GOVERNMENT**

### **Details of the Initiatives are as follows:**

#### **▪ Rashtriya Gokul Mission**

Rashtriya Gokul Mission a project under the National Program for Bovine Breeding and Dairy Development is being launched with the objective of conserving and developing indigenous Breeds in a focused and scientific manner. The potential to enhance the productivity of the indigenous breeds through professional farm management and superior nutrition, as well as gradation of indigenous bovine germplasm will be done with an outlay of Rs. 550 crores.

#### **▪ Rail Milk Network**

In order to promote Agri Rail Network for transportation of milk, orders have been placed by AMUL and NDDDB on behalf of Dairy Cooperative Federations for procurement of 36 new Rail Milk Tankers and will be made available by Railways. This will help in movement of milk from milk surplus areas to areas of demand providing dairy farmers with greater market areas.

- An allocation of Rs. 50 crore for development of indigenous cattle breed has been provided.
- 'Blue Revolution' for development of inland fisheries being initiated with a sum of Rs. 50 crore
- Target for providing institutional agricultural credit to farmers during 2014-15 has been enhanced to Rs. 8 lakh crore which is expected to surpass.
- Agriculture credit at a concessional rate of 7% with an interest subvention of 3% for timely repayment will continue during 2014-15.
- An allocation of Rs. 5,000 crore for 2014-15 has been made for scientific warehousing infrastructure for increasing shelf life of agricultural produce and thereby increasing the earning capacity of farmers.
- A higher allocation of Rs. 25,000 crore has been made to the corpus of Rural Infrastructure Development Fund during 2014-15 which helps in creation of infrastructure in agriculture and rural sectors.

- An initial corpus of Rs. 4,000 crore is being created to set up long term rural credit fund in NABARD to give a boost to long term investment credit in agriculture.
- For ensuring increased and uninterrupted credit flow to farmers and to avoid high cost market borrowings by NABARD an amount of Rs. 50,000 crore during 2014-15 has been made for Short Term Cooperative Rural Credit (STCRC-refinance fund).
- To improve access to irrigation, Pradhan Mantri Krishi Sichayee Yojana has been initiated with a sum of Rs. 1,000 crore in the year 2014-15.
- To mitigate price volatility in the agricultural produce a sum of Rs. 500 crore has been provided for Price Stabilization Fund.
- Government has initiated a scheme for Soil Health Card for every farmer in a mission mode with an initial allocation of Rs. 100 crore in 2014-15.
- An additional amount of Rs. 56 crore has been made to set up 100 mobile soil testing laboratories countrywide.
- National Adaptation Fund for climate change has been established with an initial allocation of Rs. 100 crore.
- To protect landless farmers from money lenders 5 lakh joint farming groups of Bhoomiheen Kisan will be financed through NABARD in the current financial year.
- A Kisan TV - Channel dedicated to agriculture will be launched with the initial allocation of Rs. 100 crores in the current financial year.
- An initial allocation of Rs. 200 crore has been allocated for establishing Agriculture Universities in Andhra Pradesh and Rajasthan and Horticulture Universities in Telangana and Haryana.
- An allocation of Rs. 100 crore has been made in the current financial year for setting up of two institutions of excellence in Assam and Jharkhand which will be at par with Indian Agricultural Research Institute, Pusa.
- An allocation of Rs.100 crore is made for 2014-15 for setting up Agri-tech Infrastructure Fund with a view to increasing public and private investments in agriculture and making farming competitive and profitable.
- In order to increase profitability for small and marginal farmers, Rs. 200 crore has been earmarked for setting up of 2000 Farmer Producer Organisations.



- Wage employment under MGNREGA will be mainly used for more productive asset creation substantially linked to agriculture & allied activities.
- Sum of Rs. 14,389 crore for Pradhan Mantri Gram Sadak Yojana for 2014-15 which will improve access for rural population including farmers.
- With a view to promoting farmers and consumers interest setting up of a national market will be accelerated by encouraging States to modify their APMC Act and other market reforms.
- With a view to develop commercial organic farming in the North Eastern Region a sum of Rs. 100 crore has been allocated.<sup>1</sup>

Central Government recognizes and discharges its responsibility to assist State Governments in overall development of Agriculture sector. Effective policy measures are in position to improve agricultural production and productivity and address problems of farmers. State Governments are also impressed upon to allocate adequate funds for development of agriculture sector in State plan, as well as initiate other measures required for achieving targeted agricultural growth rate and address problem of farmers.<sup>3</sup>

## **FUTURE SOLUTIONS TO THE AGRICULTURAL PROBLEM**

- \* A separate committee should be formed which would perform as an extension of CAG (Comptroller and auditor general) India dedicated fully towards the audit of agricultural sector.
- \* The committee hence formed should be headed by the CAG itself and comprising of the representatives from the Indian Administrative Services.
- \* The sole work of the former should be to check whether the policies implemented by the Government have successfully reached to the beneficiaries or not.
  - To check whether the policies implemented are benefiting the beneficiaries and their efficiencies in the public grounds.
  - To audit the institutes dedicated towards development of Indian agriculture by scientific and educational means which are funded by the government.
  - To audit the contributions and rate of implementation of these contributions to the Indian farmers.
  - To audit state wise development of agriculture.

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<sup>3</sup> Available at: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=113870>[Published on 22 December 2014 15:28 IST]

The sole purpose to form this committee is to improve the conditions of Indian farmers and abolish the corruption by middlemen and land mafia which is a major factor of failure of government policies.

## **CONCLUSION**

2,02,090 crore is the total money allocated and earmark for agricultural sector (combined) by the government in the fiscal year 2014-2015 (sum distribution given above).

Assuming a puny share of 20% which would have been implicated after the release of 2,02,090 crore which would amount to INR 40,418 crore, the suicide rate was still 5,650 (data published by NCRB). Strict implications need to be applied for stopping this grave practice like Farmer's suicide because of high debt, crop failure, natural calamity etc. After their death, their families suffer poverty and suffering which is highly unfavorable for a nation like India which is on its path of development. Agriculture is the backbone of our country and hence strengthening it should be our prime concern.