

## **BUILDING FEW MISTAKES WITH MAKE IN INDIA**

**SAGAR MITTAL, AASTHA, ONKAR GHORPADE, ALOK KUSHWAH & SIDDHARTH BAGRECHA**

Research Scholar, Department of Chemical Engineering, Indian Institute of Technology, Delhi, India

### **ABSTRACT**

Prime Minister Narendra Modi might have inflated the people's expectations for a much developed India in times to come with the recent initiative of Make in India. But it seems more of a mobilised approach and needs to be renovated to suit the country's demands. More than half of India's population which is engaged in agrarian activities contributes to a meagre share of 17.01% to the country's GDP. Well, India is definitely far away from extracting the best from this sector. Aiming for development leaving behind this sector may either be not possible or might take centuries for that case. As we speak, developments in agriculture are required from the basics and incorporating it in Make in India might have contributed only to a part of its glory but leaving it behind will only worsen the situation. Encouraging foreign investments in hybrid seeds manufacturing, fertiliser production; agricultural land leasing and irrigation facilities can boost agriculture in India. This robust regulatory framework for agriculture promises to lead the countries with agrarian empowerment potential a way ahead with better investment opportunities, technological advancements, less import expenditure and expanding foreign reserves.

**KEYWORDS:** Automobiles, Automobile Components, Aviation, Biotechnology, Chemicals, Construction, GDP

### **INTRODUCTION**

Just after the independence, Indian leaders did not have that much courage to allow foreign countries to invest in India because of the just earned independence from the fetters of British rule. As a result, a very controlled economy, cut off from the rest of the world started to develop in India. Indian companies faced very less competition and had no motive to innovate. Businessmen found it very difficult to get their business started in India because of irrelevant involvement of the government and loads of documentation required for every petty issue. This even led to increase in corruption in the Indian roots. 'Permit Raj', as so called by the people, acted as a break on the Indian economy. Indian economy had become stagnated, inefficient and in-debt. In the year 1991, when India was in a serious economic trouble, a very prompt and well thought decision of liberalising the country's economy was taken. Indian economy was rendered open to the foreign investments. The reforms did away with the License Raj, reduced tariffs and interest rates and ended many public monopolies. The decision proved fruitful and as a result, Indian economy turned around much sooner and much more deeply. Aimed at boosting the economy on the same grounds, Prime Minister Narendra Modi launched a major National program called Make in India on 25th September, 2014. The title itself makes somewhat clear of its objectives. India wants to invite foreign companies to invest and manufacture in India for mutual benefits. India promises to provide a business friendly environment to these firms and in return, expects investment from them. A broad outline of the approach of the government in this program was laid down. The program focuses mainly on 25 sectors of the economy namely.

Automobiles, Automobile Components, Aviation, Biotechnology, Chemicals, Construction, Defence manufacturing, Electrical Machinery, Electronic systems, Food Processing, Information Technology and Business process

management, Leather, Media and Entertainment, Mining, Oil and Gas, Pharmaceuticals, Ports and Shipping, Railways, Renewable Energy, Roads and Highways, Space and astronomy, Textiles and Garments, Thermal Power, Tourism and Hospitality, Wellness.

100% FDI is permitted in all the above sectors, except for space (74%), defence (49%) and news media (26%).

The very fact that agriculture is missing among these 25 listed economic sectors wherein the campaign will be focussed upon, amazes and simultaneously, disappoints me. Agriculture has been one of the most crucial economic sectors of India since its origin. More than half of the Indian population still depends on agriculture or allied sectors for its daily employment and yet, contributes bit of pennies to our GDP. Indian agriculture needs to be taken along for the country development. There is no way avoiding this fact.

### **Why is this Relevant?**

It is always better and easy to excel in a skill in which you are unique. India also has some unique sectors in which it can do wonders if focussed upon. Agriculture sector in India has the capability of driving the Indian economy solely to the heights. According to the World Bank data, 2011-15, India has an aggregate agricultural land of 60.6% which is more than many countries in the world. Again from the same data, in 2014, 50% of the Indian population was engaged in agriculture for employment purposes. While, on the other hand, according to a report by Statistics Times, agriculture and allied sector had a contribution of only 17.01% in 2014-15 to the total GDP. This is a matter of high concern. The sector which has engaged half the population of the country is contributing a meagre amount in the GDP. There have been problems of exclusion in this country. Significant difference in the contribution made by different economic sectors, with industries and services sector contributing 30.02% and 52.97% in the same year 2014-15, prove the above statement. Had there been more contribution by the agriculture sector than the rest of the two, the situation could have been much less stressful and easy to understand (because of majority of population being involved in it) with a definite scope of improvement, but this situation calls for immediate remedies. Agriculture was one of the excluded sector during the reform period leading to increasing cases of farmers' suicides. There are also concerns on food security and livelihoods. This is one of the reasons why our Indian leaders must focus upon this shattered Indian agriculture sector rather than emulating China's success. Including agriculture in 'Make in India' could have given a boost to this sector. There is no denying the fact that 'Make in India' could not solely act as the lifeline for this sector but yes, segregating this sector from such a big initiative will only worsen its situation.

### **MAJOR AGRICULTURAL CHALLENGES: CORRESPONDING SOLUTIONS**

The problems faced in agriculture vary with space and time, but the most usual ones are listed below:

- **Use of Fertilisers** - Fertilisers do not cost less. The capital input in the process feedstock and the process itself makes it a not-so-cheap commodity. So, to make them easily available to the farmers of our country, around 80% of them being small and marginal land holders, government has drenched its policies and limitations thoroughly into this sector such that it sometimes reminds us of the horrifying 'License Raj' from the post-independence era. Indian government has allowed 100% foreign direct investment through automatic route in the fertiliser manufacturing sector but yet, when you ask for a foreign company who has invested in India to manufacture fertilisers and tried to harness this massive market of fertiliser consumption, there are not much names heard.

Well, what can be the reason for this? Fertilisers have never been a cheap commodity. The reason being the large investments in production feedstock and the process itself. So, to maintain a steady relationship between their increasing prices and their necessary consumption to increase agriculture production, government initiated Retention Price Scheme (RPS) in late 1970s wherein, the farmers could access the fertilisers at very feasible rates and the manufacturers were given subsidies to make up for their losses. After going through a flip flop through a ton of policy changes, government at present, controls the MRP of nearly all the fertiliser categories, directly or indirectly. As a result, fertiliser manufacturers selling above those prices are bound to be profiteering from the scheme and not given subsidies eventually. But what could be the reason behind so unwelcoming behaviours of manufacturers when they were given subsidies to make up for their losses. The reasons were increase in the cost of the raw materials on the one hand and merely any increase in the MRP on the other hand. The subsidy on fertilisers increased from a meagre amount of Rs. 19,389.64 crores in 2005-06 to a skyrocketing Rs.72070.30 crores in 2015-16. The delay or under-payment of subsidy to the manufacturers is indeed very demotivating which is one of the reasons foreign companies have yet not invested in this sector, given the fact that India is one of the largest fertiliser consumers given its massive population and majority of its population depending on agriculture for daily employment. Due to the lack of natural resources and inefficient production capacities of domestic plants, India has always remained highly dependent on imports which are operated in cartels by the big manufacturers in this field. The top 5 producers, namely, Yara (Norway), Mosaic (US), Agrium (Canada), Potash Group (Canada) and The Kali and Salz Group (Germany) accounted for about 33% of the total fertiliser production in the world in 2007. The government has to take immediate steps to enthruse foreign companies to invest in fertiliser manufacturing in the country. Introduction of Nutrient Based Scheme (NBS) on April 1, 2010 was an initiative in the favour of allowing manufacturers to fix MRP and access of genuine priced fertilisers to the farmers. The government fixed uniform subsidy per nutrient N, P, K, and sulphur. But due to arriving elections, government discarded the scheme after 3 years in April 2013. Moreover, lack of natural resources is one more factor depressing foreign investments. As per the data of year 2012, we depend on the imports to the extent of 90% in phosphates and 100% in potash. Moreover; our dependence on foreign markets for the natural gas supply has been constantly increasing over the years. Percentage of Natural gas imports of the total consumption has increased from 29.31% in 2006-07 to 68.4% in 2015-16. Table 2 indicates the rising dependence on imports for natural gas. Clearly indicating high dependence on foreign markets. Government should look for acquisition of mines or reserves in foreign lands where there is abundance of it. This might help in feedstock price reduction in long terms and might even encourage foreign investors.

Table 2

Year	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Imports (MMSCM)	9025	10930	10544	11822	12892	15412	14444	17728	18536	21309
Production (MMSCM)	30791.44	31478.57	31751.02	46485.88	51229.29	46453.29	39752.94	34574.06	32693.22	31138.48
% Imports	29.31	34.72	33.21	25.43	25.16	33.17	36.33	51.27	56.69	68.43

Source: PPAP

- Irrigation** - In India, the irrigation system comprises a network of rivers, dams, canals and groundwater. The groundwater is the largest source of irrigation in India. About 2/3rd of the cultivated land still rely on the monsoons. According to 2001-02 census only about 36% of total land was actually irrigated and according to the recent reports by World Bank, only about 35% of the total agricultural land was reliably irrigated in India in 2010. This data clearly shows that we are far away from being efficient as far as irrigation field is considered. This field can improve by focussing on multiple things such as better storage of groundwater, efficient use of the water available and recharging artificially the ground water. As these things like water, power and other public services comes under state government the scenario are different in different parts of the country. If we see states like Haryana, Punjab, the groundwater is depleting at a rapid pace and the power subsidies are also mounting whereas in Gujarat, the groundwater balance is improving and the power subsidies are declining. Government plans to build 500,000 ponds to store the groundwater as said by Indian Prime Minister Narendra Modi in his radio program "Mann Ki Baat". The idea of government is right but government needs to focus more on the execution part. The ponds need to be created at the right place so that they can serve maximum. In this regard, government can encourage private companies which can focus on specific regions and can provide the best locations for the ponds so that we get an optimisation of most collection of water and better subsequent distribution. In this way we will have more efficient system which will help the farmers and the irrigation land will increase. The regulation of ground and surface water can be very efficiently done with the conjunctive management. It will certainly improve the efficiency of whole system drastically. Government can invite private companies to explore the hidden areas and opportunities by which we can utilize maximum water. Gujarat Government has set a great example by constructing 600 Km long canal to use surplus flood waters from SardarSarovar and Kadana which helped them to counter groundwater depletion.
- Small Land Holdings** - According to the data from Agricultural Census, there were about 138.35 million agricultural holdings in India in 2010-11. The small and marginal holdings taken together (below 2.00 ha.) constituted 85.01 percent in 2010-11 against 83.29 in 2005-06 and the operated area at 44.58 percent in the current Census as against the corresponding figure of 41.14 percent in 2005-06. The average size of an operational holding measured in 2010-11 was 1.15 as compared to 1.23 in 2005-06. This abundant aggregate operated area turns insignificant when divided into such scattered and non-economical fragments. Small or marginal land holdings always lead to low production because of difficulty in irrigation, wastage of significant share of land in providing boundaries, constraints in accessing inputs, credit, extension and marketing. According to NSS 70th

Round report on 'Key indicators Situation Assessment of Agricultural Households', marginal farmers (0.4 ha. - 1 ha.) Have a net income of Rs. 5247 against a total consumption of Rs. 6020 with total dis-savings of Rs. 773. While on the other hand, large scale farmers (4 ha. - 10 ha.) Have a net income of Rs. 19637 against a total consumption of Rs. 10104 with a net savings of Rs. 9533. The facts clearly indicate that the farmers with marginal land holdings are subjected to more losses rather than earnings. As a result, they move to private money lenders charging high interest rates. Clearly, marginal and small scale farmers are among the vulnerable groups in our country and immediate action needs to be taken to avoid further worsening of the situation. There have been instances where the government of other countries have allowed foreign direct investments in land acquisition. Although, many of these cases have turned out to have adverse effects on the host country, especially where there is lack of good governance, rule of law, transparency and clear land tenure rights. Due to the increasing food prices, countries with less agricultural land have been looking into this option of owning agricultural lands in agrarian countries, viewing the ownership of the land and exporting the produce back to their home country as a more reliable source for food security rather than depending on international markets. Our country, on the other hand, losing a major part (44.58% of aggregate operated area) on small scale land holdings can think of a solution from this situation. These include displacement of local small scale farmers, reduction of grazing land to the pastoralists, lack of access to resources by the local farmers and loss of income of the local people. This may even lead to social fragmentation over the land and opposition from the local people leading to property loss of the company. As of now, foreign investments are not allowed to purchase farm lands in India. Development experts have suggested that those investment models in which local smallholding farmers are also included, turn out to reduce a lot of above mentioned risks and can create a conducive environment for the social and economic development in that area. This symbiosis can turn out to be very effective with investment by the foreign company (in terms of capital, technological advancements and management skills) accompanied by the local farmers (land, labourers and local knowledge). Local farmers can be included as a shareholder in the company profits. Government laws should be strict enough to abide the company to export all the produce their homeland so as to ensure food security. Even the Indian urban development ministry is pushing for retrospective application of a significant change proposed in the foreign direct investment, which will allow foreign investors to purchase farm land in India. The government can explore this to make some significant improvements in agriculture.

- **Access to Quality Seeds** - Seed is a very basic and crucial input for a sustainable agriculture. It directly affects the yield of an agriculture unit. According to the studies by Seed net India Portal, the quality seeds contribute to about 15-20% of the total agriculture production and may even increase to 45% with efficient management of other inputs. With around 80% of farmers still depending on farm available seeds, India has a way to go to make good quality seeds available to the farmers to ensure valuable. Both, public and private sector companies/corporations are involved in the seed manufacturing. Private sector started emerging in this sector in around 1980s. Since then, it has keenly focussed itself on high-value and low volume seeds for more profits. These included mainly of corn, cotton, sunflower, vegetables, flowers and more recently rice. The basic reasons of private firms being confined to high value seeds is due to the high profit margins involved in this field. But due to the recent interventions by the Indian government imposing stringent restrictions on these companies, seeds industry might face a setback with foreign investors unlikely to be interested in the Indian market. The recent notification of the ministry on March 8, 2016 slicing off the maximum retail price of Bt. Cotton crops to Rs. 635

from Rs. 800 has forced Monsanto Int. to think upon whether to continue in India or not. Table 1 will brief you the important figures:

**Table 1**

S. No.	Components	Bollgard I version (Bt. Cotton) Rs.	Bollgard II version (Bt. Cotton) Rs.
1	Seed value	635	751
2	Trait value including taxes	0	49
3	Maximum sale prices	635	800

Before the notification, Bt. Cotton was sold at prices ranging from Rs. 830-1000. The royalty fees was cut from Rs.163 to Rs.43. Even not enough, the ministry issued another notification entitled 'Licensing and Formats for GM Technology Agreement Guidelines' on May 18, 2016 wherein the major points were as follows:

- Any qualifying domestic seed company seeking to incorporate the approved GM of a provider cannot be denied.
- GM technology providers cannot exceed the royalty fees by 10% of the maximum sale price which has been fixed to Rs. 800

Due to high opposition received by the industries criticising the notification, the ministry rescinded the notification on May 18, 2016 laying it open to comments and suggestions from the public before taking a final call. Government might have focussed on the benefits of domestic producers but this narrow approach will demotivate investors to innovate and introduce new technologies due to the absence of effective legal varietal protection regime in the country.

## CONCLUSIONS

The paper reviews the need of the Indian government to focus on the country's agriculture sector rather than leaving it behind and imitating other developed countries. Including agriculture in Make in India campaign can bring improvements in the sectors mostly concerned in agriculture like access to good quality seeds, use of fertilisers, small land holdings and use of proper irrigation facilities. Still many loopholes need to be filled to enthruse the foreign investors to invest here to entertain mutual benefits. Farm land leasing in fine collaborations with local farmers and efficient monitoring of the government can solve the challenges faced by small land holders. Focusing on water storage and conjunctive management which will drastically improve irrigation in India. Avoiding build-up of subsidy dues and lag in their payments by introducing bold reforms and efficient subsidy allocations might lure foreign fertiliser manufacturing companies to invest in India. Introduction of government reforms in seeds manufacturing industry hinders the privacy of the hybrid seed manufacturers. Genuine reforms in this sector are required for the necessary change.

## REFERENCES

1. Agriculture Land (% of land area) - The World Bank, [online] Available: <http://data.worldbank.org/indicator/AG.LND.AGRI.ZS>

2. DatabookDec2014 2, Planning Commission of India [online] Available: [http://planningcommission.gov.in/data/datatable/data\\_2312/DatabookDec2014%202.pdf](http://planningcommission.gov.in/data/datatable/data_2312/DatabookDec2014%202.pdf)
3. Govt. cuts subsidy on most on most fertilizers for 2012/13, Reuters [online] Available: <http://in.reuters.com/article/india-fertiliser-subsidy-idINDEE8200AD20120301>
4. FY16 Outlook: Fertilizers, India Ratings and Research, [online] Available: <https://mail.google.com/mail/u/0/#inbox/155f525b7986b2c4>
5. India's Stringent and Shifting Policy on Genetically Modified Cotton Seeds, [online] Available: <https://bricwallblog.com/2016/06/13/indias-stringent-and-shifting-policy-on-genetically-modified-cotton-seeds/> (did not mention about BRIC wall)
6. Water Management and Improving Irrigation in India, [online] Available: <http://www.adb.org/features/tushaar-shah-conjunctive-management-improving-irrigation-india>
7. 'Government to build 500,000 ponds in rural areas: Narendra Modi', [online] Available: <http://www.livemint.com/Politics/FTiy2TiDCH6qkeSX5wmu8I/Govt-to-construct-5-lakh-farming-pools-Narendra-Modi.html>
8. Irrigation in India, Wikipedia, Available: [https://en.wikipedia.org/wiki/Irrigation\\_in\\_India](https://en.wikipedia.org/wiki/Irrigation_in_India)
9. Petroleum Planning & Analysis Cell, [online] Available: [http://ppac.org.in/content/153\\_1\\_ImportNaturalgas.aspx](http://ppac.org.in/content/153_1_ImportNaturalgas.aspx)

