

# The Issues Facing Indian Agriculture

Rahul Choudhary and Sudhir Choudhary JNKVV, Jabalpur ARTICLE ID: 002

# **Feeding Billions**

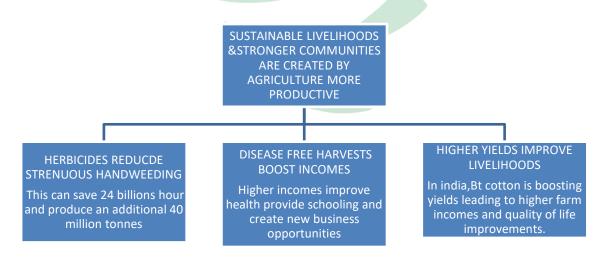
In 2020 The population of India is 1.35 billion, and by 2050 it will surpass 1.64 billion. This mean farmers need to produce 33 %more food on less land than ever before .Crop protection products and plant biotechnology can improve yields to help farmers meet this goal.

### **Improving Yields**

- Better yields : Since 1966 yields for rice have more than doubled.
- Reducing losses: Pest could destroy 50% of the world's wheat crop. Crop protection practices prevent nearly half of these crop losses.
- More food : Biotech crops help farmers grow more food per acre.

#### **Improving Lives**

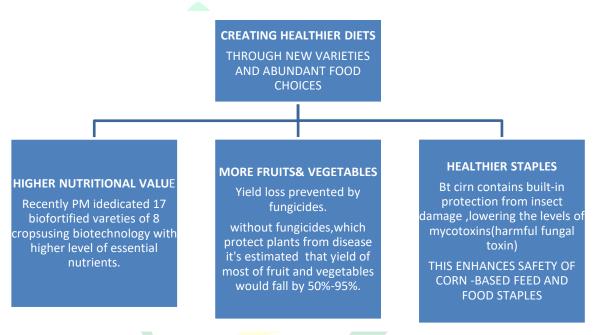
For millions of families in the developing India, farming is not just an occupation. It is the soul means of survival these small holder farmer grow several crops on small plots of land to support their families and local communities making agriculture more productive and profitable through plant science technologies will enable small holder farmers to improve their quality of life.



**Fighting Poor Nutrition** 

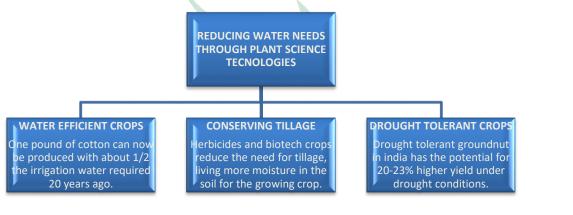


In India one in three children suffers from malnutition. 14 per cent of **India's** population is **undernourished**, according to 'The State of Food Security and Nutrition in the World, **2020**' report. The report states 189.2 million people are **undernourished in India** and 34.7 per cent of the children aged under five in **India** are stunted. It could be prevented with improved nutrition. Plant science can help by producing more food for a growing population and creating plant varieties with higher nutrition values.



#### **Conserving Water:**

In the next 20 years, its predicted that . By 2050, *India's* total *water* demand will increase 32 per cent from now. Today, with every calorie we eat requiring about one litre of water to produce, agriculture accounts for 70% of global water use, new technologies can help us change the way water use and managed.





#### **Preserving Soil**

In less than 40 years, it's estimated that half of the current land we use to grow crops will become unusable due to desertification and land degradation, this loss of soil productivity and plant cover is primarily caused by unsustainable agriculture practices such as intensive tillage, and prolonged dought, by using biotechnology and crop protection products, farmers can employ conservation agriculture, protecting land for future generations.

### **Protecting Biodiversity**

Biodiversity is the variety of life on earth. This incredible wealth of about 8.7 million different species forms an integral part of our environment and livelihoods. But biodiversity is under threat, driven largely by the conversion of wild natural habitats to agriculture. However, with the help of biotechnology and crop protection products, farmers can now grow more food on the same amount of land-taking pressure off of the need to convert.

#### SAFE GUARDING BIODIVERSITY BY REDUCING THE NEED FOR ADDITIONAL FARMLAND & NATURAL **HABITATS DEFENCE AGAINST** HIGHER YIELDING CONSERVATION **INVADERS** TILLAGE If higher yielding biotech Forests and other natural crop had not been available. Conservation tillage leaves habitats can thrive when additional million hectares crop stubble in the field, pesticides are used to of farmland would have Improving habitat and food control invading plants or been needed to maintain sources for insects, birds and insects that threaten native global production levels. other animals species.

# **Responding To Climate Change**

Climate change has already significantly impacted growing condition and weather patterns. And if current trends continue, it's predicted that temperature will rise by 2-3\* C over the next 50 years, leading to serious impacts. Farmers may face even more drought, flooding and excessive heat as they are challenged to produce food for an increasing population, plant science technologies can help farmers mitigate climate change and deal with erratic weather patterns.