

Project :- Food security

Team Id :- PANT2022TMID14821

Team Leader :- Tarunika M

Team Member :- Sanjana V

Team Member :- Nandhini G

Team Member :- Suruthiksha L

ABSTRACT

The project aims to develop a system that can help to reduce the waste food on ground level in the society. Which can help to reduce the hunger and famine from

Enable or needy persons .

we all are wasting much food during wedding function and or any type of events or functions which is happened anywhere in society so through this system we can reduce the food wasting . if we are taking one initiative step which can help to remove hunger or famine in our society.

everyone can get nutrition and appropriate food security is a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”.

Access to quality, nutritious food is fundamental to human existence.

Secure access to food can produce wide ranging positive impacts, including: Economic growth and job creation.

Poverty reduction. Multiple factors are responsible for food insecurity worldwide, including population growth, climate change, increasing cost of food, unemployment, poverty, and loss of biodiversity .

The long-term presence of food security increases health and changes lives. Agricultural improvements bring the benefits of increased financial stability, and a more easily fed family empowers vulnerable and marginalized groups.

The operational plan thus defines the goal of sustainable food security as the improved availability of, and access to, adequate and safe food for Asia's poor and vulnerable people in a sustainable manner.

One essential component in the common solutions to food insecurity is assisting locals with the sustainable management of local natural resources through soil conservation, water harvesting, rehabilitating irrigation systems and reducing the loss of biodiversity.

Food security, as defined by the United Nations' Committee on World Food Security, means that all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life. food security help poverty

Poverty and food security are intricately interlinked. Without an income or resources to grow food people are likely to become ill and to be unable to work to produce food or earn an income.

Food Security

As per the Economic Survey (2018-19), India needs to take big initiatives to improve its food security as it faces supply constraints, water scarcity, small landholdings, low per capita GDP and inadequate irrigation.

What is Food Security?

- Food security, as defined by the United Nations' Committee on World Food Security, means that all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life.
- Food security is the combination of the following three elements:

- **Food availability** i.e. food must be available in sufficient quantities and on a consistent basis. It considers stock and production in a given area and the capacity to bring in food from elsewhere, through trade or aid.

- **Food access** i.e. people must be able to regularly acquire
- adequate quantities of food, through purchase, home production, barter, gifts, borrowing or food aid.

Food utilization: Consumed food must have a positive nutritional impact on people. It entails cooking, storage and hygiene practices, individuals health, water and sanitation, feeding and sharing practices within the household.

- Food security is closely related to household resources, disposable income and socioeconomic status. It is also strongly interlinked with other issues, such as food prices, global environment change, water, energy and agriculture growth.

Why Food Security is Important for a Nation?

- For boosting the agricultural sector.
- For having a control on food prices.
- For economic growth and job creation leading to poverty reduction

For trade opportunities

Food security in India

- Food security concerns can be traced back to the experience of the **Bengal Famine in 1943** during British colonial rule, during which about 2 million to 3 million people perished due to starvation.
- Since attaining independence, an initial rush to industrialize while ignoring agriculture, two successive

droughts in the mid-1960s, and dependence on food aid from the United States exposed India's vulnerability to several shocks on the food security front.

- The country went through a **Green Revolution** in the late 1960s and early 1970s, enabling it to overcome productivity stagnation and to significantly improve food grain production.
 - Despite its success, the Green Revolution is often criticized for being focused on only two cereals, wheat and rice; being confined to a few resource abundant regions in the northwestern and southern parts of the country that benefited mostly rich farmers; and putting too much stress on the ecology of these regions, especially soil and water.
- The Green Revolution was followed by the **White Revolution**, which was initiated by **Operation Flood** during the 1970s and 1980s. This national initiative has revolutionized liquid milk production and marketing in India, making it the largest producer of milk.

Challenges to food security

- **Climate Change:** Higher temperatures and unreliable rainfall makes farming difficult. Climate change not only impacts crop but also livestock, forestry, fisheries and aquaculture, and can cause grave social and economic consequences in the form of reduced incomes, eroded livelihoods, trade disruption and adverse health impacts.
- **Lack of access to remote areas:** For the tribal communities, habitation in remote difficult terrains and practice of subsistence farming has led to significant economic backwardness. Increase in **rural-to-urban**

migration, large proportion of informal workforce resulting in unplanned growth of slums which lack in the basic health and hygiene facilities, insufficient housing and increased food insecurity.

• **Overpopulation, poverty, lack of education and gender inequality.**

Inadequate distribution of food through public distribution mechanisms (PDS i.e. Public Distribution System).

- Deserving beneficiaries of the subsidy are excluded on the basis of non-ownership of below poverty line (BPL) status, as the criterion for identifying a household as BPL is arbitrary and varies from state to state.

• **Biofuels:** The growth of the market has reduced the land used for growing food crops. **Conflict:** Food can be used as a weapon, with enemies cutting off food supplies in order to gain ground. Crops can also be destroyed during the conflict.

Unmonitored nutrition programmes: Although a number of programmes with improving nutrition as their main component are planned in the country but these are not properly implemented.

• **National Food Security Mission**

- It is a Centrally Sponsored Scheme launched in 2007.
- It aims to increase production of rice, wheat, pulses, coarse cereals and commercial crops, through area expansion and productivity enhancement.

It works toward restoring soil fertility and productivity at the individual farm level and enhancing farm level economy.

It further aims to augment the availability of vegetable oils and to reduce the import of edible oils.

The government policy needs to adopt an integrated policy framework to facilitate agriculture productivity.

.Step to be taken to Ensure Food Security

- The measures should focus mainly on rationale **distribution of cultivable land, improving the size of the farms** and providing security to the tenant cultivators apart from providing the farmers with improved technology for cultivation and improved inputs like irrigation facilities, availability of better quality seeds, fertilizers and credits at lower interest rates.
- **Aeroponics** and **hydroponics** are systems that allow plants to be grown without soil. Plants grown in this way take in water and nutrients efficiently. These methods can be used in the areas of poor soil quality and soil erosion.
- **Adoption of crops and techniques with lower water requirements**, such as the
System of Rice Intensification (SRI) method of rice production, contributes to resilience by enabling equal or better yields to be achieved with less water withdrawal.
- **Planting crops with lower water requirements and agricultural practices that maintain soil**

moisture, such as maintaining vegetative cover between crops, can also contribute to resilience.

- **Crop diversification:** Higher profitability and stability in production highlight the importance of crop diversification, e.g. legumes alternative with rice and wheat. Growing of non-cereal crops such as oilseeds, fruits and vegetables etc need to be encouraged.