

FOOD SECURITY IN INDIA- ISSUES AND CHALLENGES

Dr. Suseela Lanka

INTRODUCTION

- ◉ Food fuels life. Life is precious.
- ◉ Food security is a fundamental human right.
- ◉ The right to food is one of the basic human rights which is closely linked to Right to life under Article 21 of the Constitution of India, 1950.
- ◉ Need to protect all human rights, including the right to food.
- ◉ food security should be an extraordinary significance for a nation like India having 21.92 per cent people living below poverty line and about one-half of all children are malnourished.

FOOD SECURITY DEFINED

Food security exists when all people, **at all times**,
have **physical** and **economic** access
to sufficient, safe and nutritious food
to meet their **dietary needs** and food preferences
for an active and healthy life.

World Food Summit, November 1996

Access

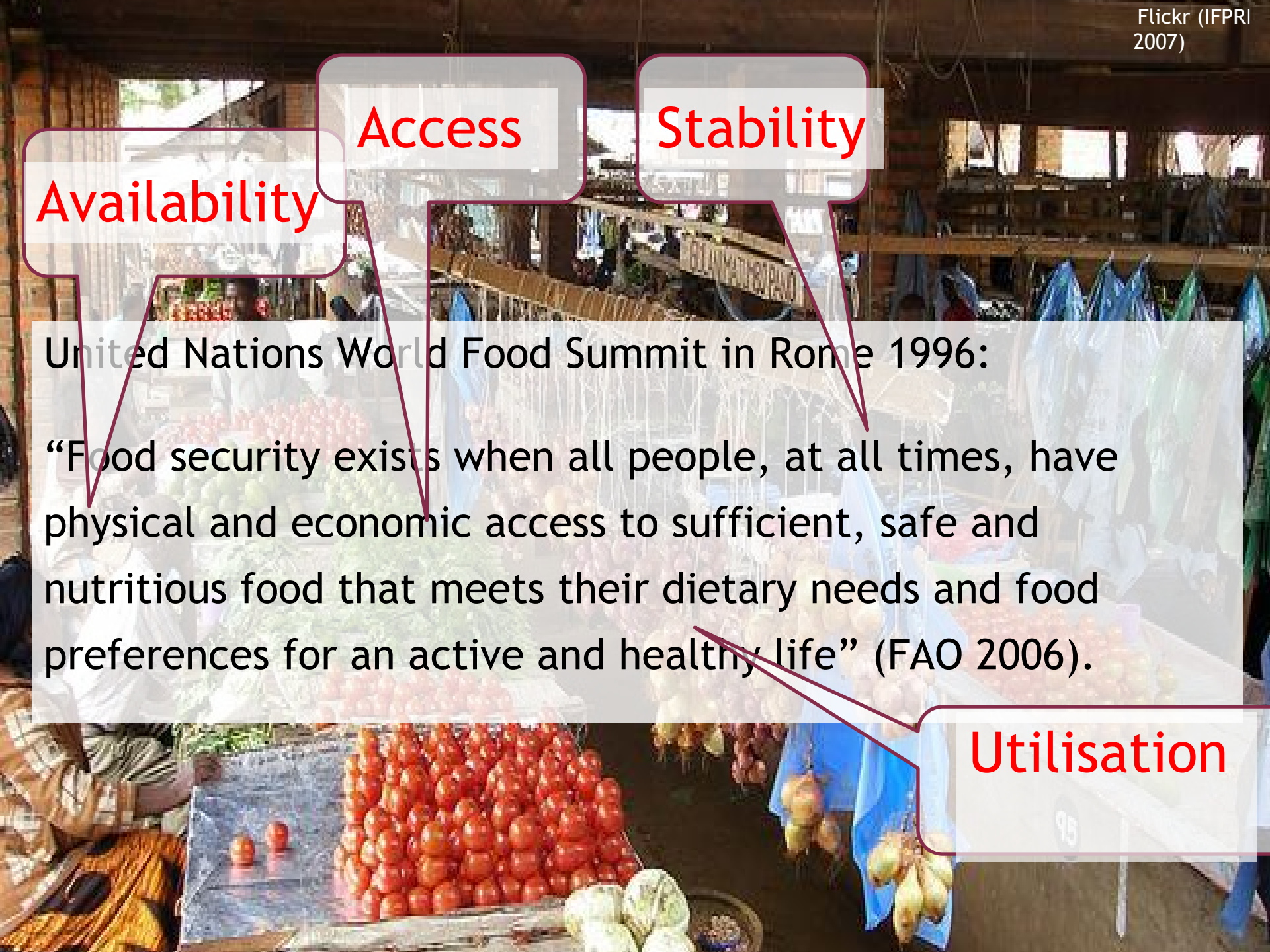
Stability

Availability

United Nations World Food Summit in Rome 1996:

“Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO 2006).

Utilisation



FOUR DIMENSIONS OF FOOD SECURITY

availability

- domestic production
- import capacity
- food stocks
- food aid

access

- poverty
- purchasing power
- transport and market infrastructure
- food distribution

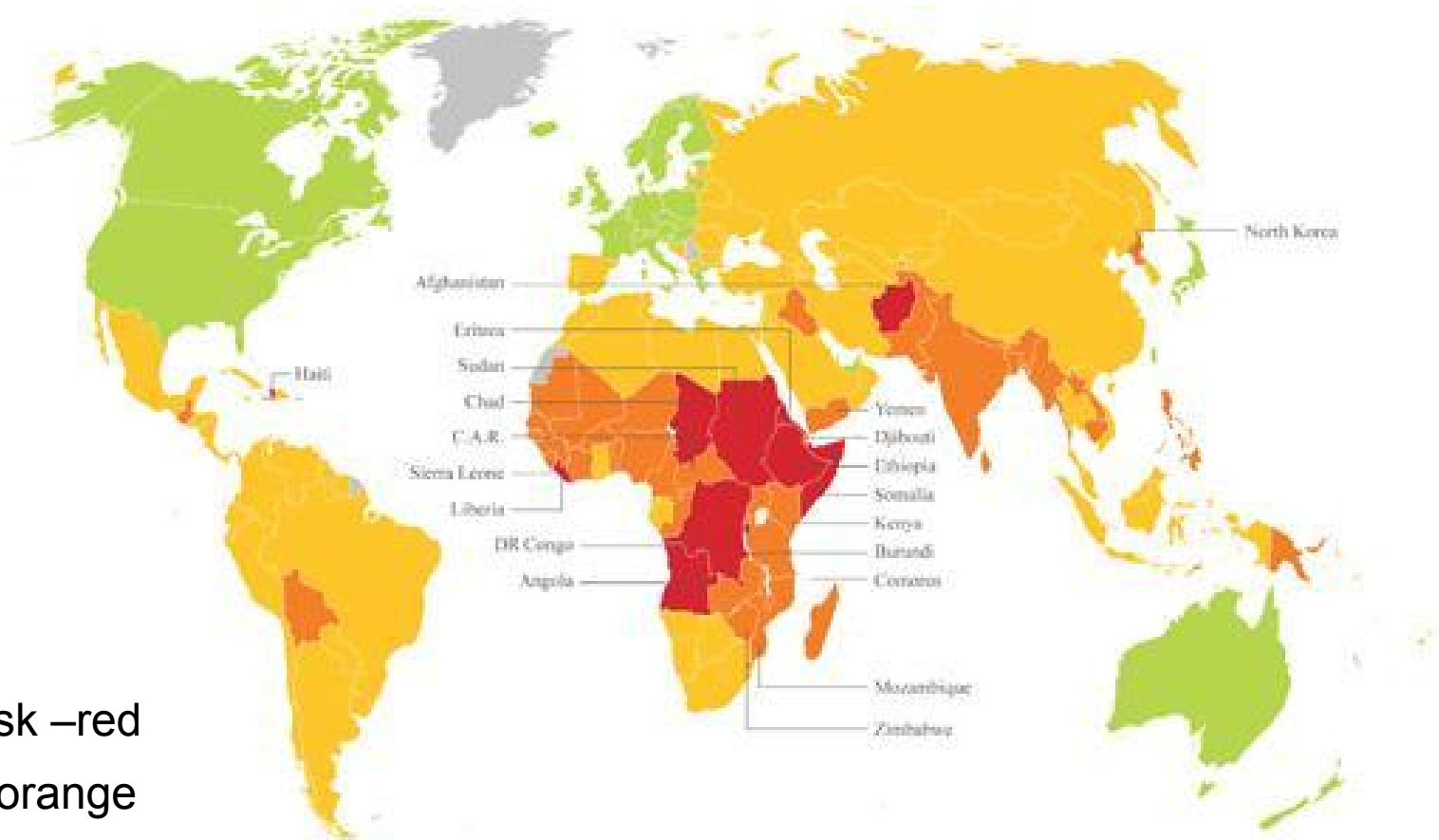
stability

- weather variability
- price fluctuations
- political factors
- economic factors

utilization

- food safety & quality
- clean water
- health & sanitation

Food Security Risk Index



Extreme Risk –red

High risk – orange

Medium risk – yellow

Low risk – green

No Data – gray

http://maplecroft.com/about/news/food_security.html

WHAT IS NUTRITION?

Nutrition is the consequence of the **intake of food** and the **utilization** of nutrients by the body.

Good nutrition produces a healthy physical and physiological condition. It is secured when **food intake, absorption and utilization** provide all essential nutrients in required amounts.

FOOD SECURITY AND NUTRITION: KEY DETERMINANTS

- food availability
- stability
- food access
- utilisation of food
- care and feeding practices
- health and sanitation conditions

food security dimensions

determinants of good/poor nutrition

WHAT ARE SOME OF THE ISSUES AFFECTING FOOD SECURITY?

- ⦿ Increasing global population
- ⦿ Climate change
- ⦿ Potable water shortage
- ⦿ Loss of arable land, urbanization
- ⦿ Increasing food wastage
- ⦿ Food related issues
 - Malnutrition
 - Obesity



Increasing population - By 2050, it is predicted to reach 9 billion. Our current output of food is not enough to feed a population of 9 billion.

Changing diets - As countries develop and people become richer they tend to eat a more varied diet, including more meat, which requires more energy to produce. This also means there is more competition for the same types of food.

Reduced arable land/Urbanization - The drive to produce more biofuels for transport uses edible crops and has reduced arable land.

Food Wastage: Spending huge money in marriage ceremony and other functions (**about 15%**).

No proper storage/ warehousing facilities available





What are some of the issues affecting world food security?

Transport costs - The relatively high price of oil in recent years has increased the price of food storage and distribution.

- **Climate change** - It is a major threat to Indian agriculture. The Global warming leads to unfavorable temperature. *1 degree Celsius rise in temperature reduces the production of wheat and rice* and may create
 - Vector born diseases to crops due to Unfavorable temperature
- **This may lead to:**
 - lower fertility
 - untimely rainfall &
 - low productivity.

Natural calamities- such as drought, heavy rainfall, earthquake, cyclone further increase the level of food insecurity. Further, natural calamities cause a rise in the price of food, which is beyond the affordability of the poor.

Pests and diseases - Pests and diseases are becoming more resistant to pesticides and sprays. The changing climate is also bringing pest and diseases into new areas where they could not previously survive.



FOOD INSECURITY AND MALNUTRITION WORLD-WIDE

- ◉ Food insecurity can lead to lower cognitive ability, diminished work performance and substantial productivity losses. All of these can hamper the growth and development of national economy.
- ◉ **805 million** people suffer from chronic hunger (undernourishment)
- ◉ **161 million** children are stunted (low height-for-age) and **51 million** wasted (low weight-for-height)
- ◉ **2 billion** people suffer from micronutrient deficiencies, or “hidden hunger” due to a lack of vitamins and minerals in the diet.
- ◉ **> 500 million** adults are obese, while an estimated **42 million** children under the age of five are overweight; this has increased the incidence of non-communicable diseases related to diet, such as heart disease, stroke, cancer and diabetes.

FOOD SECURITY IN INDIA

- ◉ With 17.3 percent of the world's population and 24.5 percent of world's undernourished population, India bears a huge burden of global food insecurity.
- ◉ According to the Global Hunger Index 2014, India ranks 55 out of the world's 120 hungriest countries even behind some of its smaller South Asian counterparts like Nepal (rank 44) and Sri Lanka (39).
- ◉ Despite some recent improvements in the nutritional status of children, the rates are still very high, as are micronutrient deficiencies. India ranks 97 (out of 118 countries) on the 2016 Global Hunger Index.

CONTD.....

- ◉ Despite its self-sufficiency in food availability, and being one of the world's largest grain producers, about 25% of Indians go to bed without food.
- ◉ Describing malnutrition as India's silent emergency, a World Bank report says that the rate of malnutrition cases among Indian children is almost five times more than in China, and twice that in Sub-Saharan Africa.

GOVERNMENT OF INDIA PROGRAMMES AND INITIATIVES

- ◉ With a five-fold increase in food grain production from 50 million tonnes in 1950-51 to about 250 million tonnes in 2014-15, India has moved away from dependence on food aid to become a net food exporter.
- ◉ In 2016, the government launched a number of programmes to double farmers' incomes by 2022. These seek to remove bottlenecks for greater agricultural productivity, especially in rain-fed areas.
- ◉ They include: the National Food Security Mission, Rashtriya Krishi Vikas Yojana (RKVY), the Integrated Schemes on Oilseeds, Pulses, Palm oil and Maize (ISOPOM), Pradhan Mantri Fasal Bima Yojana, the e-marketplace, as well as a massive irrigation and soil and water harvesting programme to increase the country's gross irrigated area from 90 million hectares to 103 million hectares by 2017.

GOVERNMENT INITIATIVES

CONTD.....

- ⦿ The government has also taken significant steps to combat under- and malnutrition over the past two decades, such as through the introduction of mid-day meals at schools, *anganwadi* systems to provide rations to pregnant and lactating mothers, and subsidized grain for those living below the poverty line through a public distribution system.
- ⦿ The National Food Security Act (NFSA), 2013, aims to ensure food and nutrition security for the most vulnerable through its associated schemes and programmes, making access to food a legal right.

POLICIES AND PROGRAMMES TAKEN FOR FOOD SECURITY

- **National Food for Work Programme (NFFWP)**
- **Antyodaya Anna Yojana (AAY)**
- **Annapurna Scheme (APS)**
- **Village Grain Banks Scheme**
- **Integrated Child Development Scheme (ICDS)**
- **Essential Commodities Act – 1955**
- **National Food Security Mission (NFSM) - 2007**
 - **National Food Security Mission - Rice (NFSM-Rice)**
 - **National Food Security Mission - Wheat (NFSM-Wheat)**
 - **National Food Security Mission - Pulses (NFSM Pulses)**
- **Rashtriya Krishi Vikas Yojana (RKVY)**
- **Public Distribution System (PDS)**
- **Mid Day Meal Scheme (MDM)**
- **Targeted Public Distribution System (TPDS)**
- **Sampoorna Grameen Rozgar Yojana (SGRY) etc.**
- **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)**
- **Amma unavagum (Mothers canteen)**

REASONS FOR FOOD INSECURITY

- ◉ In spite of the various initiatives for food security in India, there are many reasons suffering from food insecurity.
- ◉ Some of the major reasons for the failure of these initiatives are –

REASONS

In rural and tribal areas –

- ⦿ lack of improvement in agricultural productivity owing to inadequate resources and markets needed to obtain agricultural stability.
- ⦿ Lack of education and job opportunities in rural areas
- ⦿ Climate change too, has an impact on the agricultural productivity
- ⦿ For the tribal communities, habitation in remote difficult terrains and practice of subsistence farming has led to significant economic backwardness.

In urban population

- ⦿ large proportion of informal workforce resulting in unplanned growth of slums which lack in the basic health and hygiene facilities.
- ⦿ Rural-to-urban migration
- ⦿ These rural migrants form a large chunk of population referred to as ‘informal sector’. The emergence of these rural origin pockets in the urban areas has resulted in a number of slum settlements characterized by inadequate water and sanitation facilities, insufficient housing and increased food insecurity.

- ◉ dependence of this labourer class on daily employment wages which tends to be variable on different days of the month and thus the food procurement and access is also fluctuating.
- ◉ A striking issue is that in India, all the privilege of the government schemes and programmes, aimed at helping the urban slum people, is enjoyed only by those slums that are notified.
- ◉ Ironically, around 50 % of the urban slums are not notified and thus are deprived of the government schemes.
- ◉ People from these un-notified slums have to buy their food from the common market at the competitive price and are devoid of the subsidized food made available through Public Distribution System (PDS).

In children and mothers

Children –

- ⊙ Poverty is a major cause as it limits the amount of food available to children.
- ⊙ Overpopulation is linked to competition for food and can lead to malnutrition amongst children, especially in rural areas where access to food is limited.
- ⊙ lack of education- Girl children have far less opportunity of schooling than men and boys do .
- ⊙ Gender inequality places the female child at a disadvantage compared to males and causes them to suffer more because they are last to eat and considered less important.
- ⊙ lack of preventive care (specifically immunization)
- ⊙ Lack of adequate knowledge amongst mothers regarding nutrition, breast-feeding and parenting.

Mothers

- ⊙ have less access to basic facilities such as primary health care and elementary education, lack of opportunities for higher education, vocational and professional training for women limits their capacity to become independent.
- ⊙ wage differentials- In India, there does exist gender-specific wage rates differences. The females are at a more disadvantaged position compared to men in the rural labour market.

Faulty food distribution system

- Inadequate distribution of food through public distribution mechanisms (PDS i.e. Public Distribution System) is also a reason for growing food insecurity in the country.

- The often inaccurate classification as above poverty line (APL) and below poverty line (BPL) categories had resulted in a big decline in the off take of food grains.
 - Poor implementation
 - Corruption (ration shop owners often sell the food grains of better quality to other buyers and provide food grains of poor quality to the ration card holders);
 - The process involved in availing a ration card is a lengthy one; etc.

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. For instance, a number of states have yet to introduce the Mid Day Meal Scheme (MDMS).
- In states such as Bihar and Orissa where the poverty ratio is very high, poor implementation of nutritional programmes that have proven effectiveness has a significant impact on food security

Lack of intersectoral coordination

- Lack of coherent food and nutrition policies along with the absence of inter sectoral coordination between various ministries of government such as Ministry of Women and Child Health, Ministry of Health and Family Welfare, Ministry of Agriculture, Ministry of Finance etc have added to the problem.

THE CHALLENGE

- ◉ With nearly 195 million undernourished people, India shares a quarter of the global hunger burden.
- ◉ Nearly 47 million or 4 out of 10 children in India are not meeting their full human potential because of chronic under nutrition or stunting.
- ◉ Stunting has consequences such as diminished learning capacity, poor school performance, reduced earnings and increased risks of chronic diseases.
- ◉ The impacts are multi-generational as malnourished girls and women often give birth to low birth-weight infants.
- ◉ There has also been an increase in the prevalence of overweight and obesity in children and adolescents in India, which has life-long consequences of non-communicable diseases in adulthood.

MEASURES TO ACHIEVE FOOD SECURITY

- ⦿ There is a compelling need to operationalise the concept of nutrition security which implies physical, economic and social access to balanced diet, clean drinking water, safe environment, and health care.
- ⦿ Ensuring food security alone will aid in reducing hunger but will not eliminate malnutrition or impact nutrition status largely if other components such as safe drinking water and health care are also not envisaged.

MEASURES TO ACHIEVE FOOD SECURITY

Implementing measures to improve agricultural productivity

The measures should focus mainly on-

- rationale distribution of cultivable land,
- improving the size of the farms and
- providing security to the tenant cultivators
- The government policy needs to adopt an integrated policy framework to facilitate the increased use of irrigation and newer farming techniques.
- availability of better quality seeds,
- fertilizers and
- credits at lower interest rates.

Food storage

- ⦿ One main reason why food is not distributed equitably is that a significant amount is wasted
- ⦿ It would be useful to adopt strategies for food storage which have been implemented successfully in other countries.
- ⦿ For example, China has an excellent system of grain storage education and research. The country has invested in building advanced storage facilities that are armored with modern equipments. India can take professional help from the China in order to improve the quality of food storing facilities so that the food grains that are wasted and spoiled could be used to satisfy the hunger of those people who really need it.

Ensuring food availability and accessibility to below poverty line (BPL) candidates

- It is essential to ensure availability of food grains to the common people at an affordable price. This can be done by more accurate targeting of the BPL population so that they get food at substantially low price.
- Iso, all restrictions on food grains regarding inter-State movement, stocking, exports and trade financing should be removed. This will reduce the food prices and increase affordability.
- The Public Distribution System must be made transparent and reliable.

Improving purchasing power through employment generating schemes

- ◉ The government should come up with more holistic schemes like Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Poverty alleviation programmes like the Integrated Rural Development Programme (IRDP) and employment generation schemes like Jawahar Rozgar Yojana, Nehru Rozgar Yojana etc need to be re-oriented and up scaled to make a positive impact on the purchasing power of the lower socio-economic segment of the population.
- ◉ Also, it is equally important to enhance the quantity and quality of wage-paid employment. Focus needs to be shifted to the workers in the informal sector by providing decent wages and healthy working conditions.
- ◉ In the urban areas, providing assistance to the small scale enterprises will lead to expansion of employment opportunities.
- ◉ It should be ensured that nutritional objectives should be an integral part of all the poverty alleviation programmes.

Crop diversification, establishing food grain banks and promoting household gardening

- ◉ Higher profitability and the 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.
- ◉ The creation of decentralized food grain banks in each village or block of the district, from which people may get subsidized food grains against food coupons, will be a good option. This concept will improve the delivery of food grains and eliminate corruption.

- ⊙ One of the ways to ensure direct access to good quality food that can be easily grown and prepared could be the concept of **home gardening**.
- ⊙ One excellent example of household gardening can be seen in **Bangladesh** where as part of its global effort to eliminate vitamin A deficiency and nutritional blindness, the NGO Helen Keller International implemented a home gardening and nutrition education project.
- ⊙ The concept worked upon was that promotion of low-cost vegetable gardens amalgamated with nutrition education could prove to be instrumental for improving the nutritional status, particularly women and young children.
- ⊙ As a result of this intervention, the average household income increased and also the nutritional intake.

Community awareness through IEC activities and social marketing

- ◉ Need based IEC and training materials should be developed for effective dissemination of nutrition messages.
- ◉ Local community education on key family health and nutrition practices using participatory and planned communication methodologies will be helpful.
- ◉ Incorporating health and nutrition education into formal school curriculum for girls and adult literacy programmes could greatly improve women's health and nutrition.
- ◉ Social marketing of iodized salt, iron and folic acid and vitamin A supplements, nutritious food mixes and other low cost vitamin/mineral preparations will prove to be beneficial.

Community participation and intersectoral coordination

- ◉ Revamping of existing direct nutrition programmes to enable management by women's Self Help Groups (SHGs) and /or local bodies can be one idea.
- ◉ orientation and training of community health workers, Panchayati Raj Institution (PRI) members, other opinion leaders, care givers and other stakeholders can be another area, if addressed, can give positive results.
- ◉ Delivering very basic, well-targeted package of nutrition services through a multi-sectorial approach will improve the nutrition level of people.
- ◉ Attention needs to be given to school based interventions including hygiene, sanitation and nutrition education.
- ◉ Community based nutrition programs (CBNP) can create scope for community participation, which facilitates effective policy implementation.

Monitoring and timely evaluation of nutritional programmes

- ⦿ A complete community based approach needs to be adopted. Focus on even simple interventions like promoting exclusive breastfeeding, proper complementary feeding and growth monitoring and promotion (GMP) can be expected to give outstanding results.
- ⦿ Efforts should be made by the concerned health departments and authorities to initiate and supervise the functioning of the nutrition related schemes in an efficient way.
- ⦿ Annual surveys and rapid assessments surveys could be some of the ways through which program outcomes can be measured.
- ⦿ Evaluations must be timely performed and should provide relevant information regarding the effectiveness of interventions.
- ⦿ Use of information technology to improve program monitoring can be thought of too.

KEY MESSAGES

- ◉ Food security and good nutrition (FSN) can be achieved when state and non-state actors coordinate their actions well
- ◉ Given the multidisciplinary nature of FSN, different sectors (food, agriculture, trade, health, etc.) need to work together
- ◉ Policies in one sector need to be assessed against policies in another to avoid conflicting action during policy implementation

- ⦿ “Growing food in a sustainable way means adopting practices that produce more with less in the same area of land and use natural resources wisely.”
- ⦿ “It also means reducing food losses before the final product or retail stage through a number of initiatives including better harvesting, storage, packing, transport, infrastructure, market mechanisms, as well as institutional and legal frameworks.



Thank you very much
For
YOUR KIND
PATIENCE !!!