

## 1. India's Food Basket Must be Enlarged

### Context:

- India is ranked 102 in the Global Hunger Index (GHI) out of 117 qualified countries. Hunger is defined by caloric deprivation; protein hunger; hidden hunger by deficiency of Micronutrients.

### Statistics and Implications of Hunger:

- Nearly 47 million or four out of 10 children in India do not meet their potential because of chronic under nutrition or stunting.
- The global nutrition report pegs 614 million women and more than half the women in India aged 15-49 as being anaemic.
- This leads to diminished learning capacity, increased chronic diseases, and low birth-weight infants from malnourished parents.

### Importance of Agro-biodiversity in addressing the Food and Nutritional Security:

- Agro biodiversity – relating to diversity of crops and varieties – is crucial in food security, nutrition, and health and essential in agricultural landscapes.
- Out of 2, 50,000 globally identified plant species, about 7,000 have historically been used in human diets.
- Today, **only 30 crops form the basis of the world's agriculture** and just three species of maize, rice and wheat supply more than half the world's daily calories.
- Genetic diversity of crops, livestock and their wild relatives, are fundamental to improve crop varieties and livestock breeds.
- Across the world, 37 sites are designated as Globally Important Agricultural Heritage Systems (GIAHS), of which three are Indian – **Kashmir (saffron), Koraput (traditional agriculture) and Kuttanad (below sea-level farming)**.
- Agro biodiversity helps **nutrition-sensitive farming** and bio-fortified foods. For instance, moringa (drumstick) has micro nutrients and sweet potato is rich in Vitamin A. There are varieties of pearl millet and sorghum rich in iron and zinc.

### Why loss of Crop Genetic Resources Occur:

- Loss of crop genetic resources is mainly a result of adopting new crop varieties without conserving traditional varieties.
- Similarly, there are concerns on high output breeds for production of meat, milk and egg.

### How to increase India's Agro Biodiversity:

- The Centre for Biodiversity Policy and Law (CEBPOL), a policy advocacy unit of the National Biodiversity Authority, came out with recommendations to increase India's agro biodiversity. These include
  1. Comprehensive policy on '**ecological agriculture**' to enhance native pest and pollinator population providing ecosystem services for the agricultural landscape.
  2. Promotion of the **bio-village concept** for ecologically sensitive farming;
  3. Conserving crop wild relatives of cereals, millets, oilseeds, fibres, forages, fruits and nuts, vegetables, spices etc. for crop genetic diversity healthier food;
  4. **Providing incentives For Farmers** cultivating native landrace varieties and those conserving indigenous breeds of livestock and poultry varieties.
  5. Encouraging **community seed banks** in each agro-climatic zone so that regional biotic properties are saved and used by new generation farmers;
  6. Preparing an **agro biodiversity index and documenting traditional practices** through People's Biodiversity Registers.
  7. **Strengthening Biodiversity Management Committees** to conserve agro biodiversity and traditional knowledge.
  8. Developing a **national level invasive alien** species policy is required to identify pathways, mapping, monitoring, managing, controlling and eradicating the invasive species
  9. The **consumption pattern and culinary diversity** must be enlarged to increase India's food basket.
  10. To conserve indigenous crop, livestock and poultry breeds by mainstreaming biodiversity into agricultural policies, schemes, programmes and projects to achieve India's food and nutrition security and minimise genetic erosion.

### Conclusion:

- The UN **Sustainable Development Goal 2** advocates for **Zero Hunger** and the Aichi **Biodiversity Target** focuses on countries conserving genetic diversity of plants, farm livestock and wild relatives.
- It emphasises that countries **develop strategies and action plans** to halt biodiversity loss and reduce direct pressure on biodiversity.