Climate Change and Food Insecurity

This editorial is based on **"COP27, in Egypt, Must Focus on Food Systems"** which was published in The Hindu. It talks about how food insecurity is related to climate change and what measures can be taken to tackle the issue of climate crisis and hunger by building resilience for the vulnerable communities.

The world is on the cusp of transformation to make the **world free of hunger by 2030** and deliver promises for **Sustainable Development Goals (SDGs)**, with strong cooperation and partnership between governments, citizens and the private sector.

Governments at the **UNFCCC COP26 Summit** also put forth a sum of U.S.$356 million in new support from contributing national and regional governments to protect the most vulnerable.

As much as all these efforts are appreciated, the plight of food security in the world is still prevalent and is further exacerbated by the Covid-19 pandemic as well.

Ensuring global **food security** requires **reimagining the** food system towards balancing growth and sustainability, Mitigating climate change, ensuring healthy, safe and affordable food and investments for the same from governments and the private sector.

Climate Crisis and Hunger

- **Climate Change and Food System Interkink:** The climate crisis impacts all parts of the global food system — from production to consumption.
  - It **destroys land and crops, kills livestock, depletes fisheries,** and cuts off transport to markets which further impacts food production, availability, diversity, access, and safety.
    - At the same time, food systems also impact the environment and are a driver of climate change. Estimates show that the food sector emits around 30% of the world's greenhouse gases.
  - The COP26 came after the pioneering **UN Food Systems Summit** which was a wake-up call that **food systems are unequal and broken** as 811 million people are going to bed hungry.
- **Climate-Hunger Crisis Current Scenario:** The agenda of ending world hunger and malnutrition in all its forms by 2030 is facing formidable challenges as the climate crisis worsen.
  - This has been **exacerbated by the Covid-19 pandemic** that has doubled the population under chronic hunger from 130 million to 270 million.
  - The **UN World Food Programme (WFP)** shows that a **2°C rise in average global temperature** from pre-industrial levels **will see a staggering 189 million additional people** in the grip of hunger.
  - As per the **latest IPCC Report**, the climate crisis will not only impact food production and livelihoods but also threaten nutrition through multi-breadbasket failures.
- **Vulnerable, Least Emitter but Worst Sufferer:** Vulnerable communities, a vast majority of whom rely on subsistence agriculture, fishing, and livestock and, who contribute the least to the climate crisis, will continue to bear the brunt of the impacts with limited means to cushion the blow.

    - **The top 10 most food-insecure countries contribute 0.08% of global carbon emissions.**
        - Crop failures, water scarcity, and declining nutrition threaten millions who rely on agriculture, fishing, and livestock.
    - The **absence of social protection measures** such as food safety nets forces the food insecure to depend on humanitarian aid for survival.
- **WFP's Initiative for Climate Crisis and Food Security:** The WFP is working with communities to adapt to the changing climate that threatens their ability to grow food, secure incomes, and withstand shocks. It has supported 39 governments, helping them realise their national climate ambitions.
    - In 2020, the **WFP implemented climate risk management solutions** in 28 countries, which benefited more than six million people so that they are better prepared for climate shocks and stresses and can recover faster.
    - **In India,** the WFP and the Environment Ministry are also **planning to develop a best practice model on adaptation and mitigation** with potential support from the Adaptation Fund

Way Forward

- **Building Resilience for the Poor:** Adaptation and resilience-building for poor and vulnerable communities are critical for food security.
    - Considering the fact that the adverse impacts of climate extremes on people and nature will continue to increase with rising temperatures, there is a **strong emphasis on the urgency of scaling up action and support** (finance, capacity-building, and technology transfer), to **enhance adaptive capacity**, strengthen resilience and **reduce vulnerability to climate change** in line with the best available science, and **considering the priorities and needs of developing country parties.**
- **Role of India: India has a huge role to play** with its ongoing and now substantial policy work at the national and State levels.
    - It has to transform its food systems making it more inclusive and sustainable for higher farm incomes and nutrition security.
    - **Diversification of cropping patterns** towards **millets**, **pulses**, **oilseeds**, **horticulture** is needed for more equal distribution of water, sustainable and climate-resilient agriculture.
- **Adaptation Finance:** The recent pledges made by the developed countries on enhancing **climate finance** to support adaptation in developing countries is a welcome gesture.
    - However, the **current climate finance** for adaptation and base of stakeholders **remain insufficient** to respond to worsening climate change impacts.
    - Multilateral development banks, other financial institutions, and the private sector shall **enhance finance mobilization to deliver the scale of resources needed** to achieve climate plans, particularly for adaptation.
    - The country parties shall also continue to **explore innovative approaches** and instruments for mobilizing finance for adaptation from private sources.
- **Multi-Pronged Approach for Tackling Climate-Hunger Crisis:** Creating **resilient livelihoods and food security solutions** by protecting and improving the livelihood of vulnerable communities.
    - The **adaptation of climate-resilient food crops,** such as **millets,** for nutritional security.
    - **Enabling women's control and ownership** of production processes and assets and increased value addition and local solutions.
    - Promoting a resilient agriculture sector by **creating sustainable opportunities, access to finance,** and **innovation for small-holder farmers,** with climate information and preparedness.
    - **Building capacity and knowledge of civil society** and governments for vulnerability analysis to increase food security by addressing the link between food security and climate risk.
- **Sustainable Food Systems:** Sustainability has to be achieved in production, value chains and consumption. Climate-resilient cropping patterns have to be promoted. Instead of giving input subsidies, cash transfers can be given for farmers for sustainable agriculture.
- **Role of Non-Agriculture Sector:** Labour-intensive manufacturing and services can reduce

pressure on agriculture.
    - Income from agriculture is not sufficient for small holders and informal workers.
    - Strengthening rural MSMEs and food processing sector is part of the solution.

Conclusion

Reimagining food systems requires looking at food systems through the prism of climate change adaptation and mitigation, which must also entail making them resilient to climate change and pandemics while making them green and sustainable.

Drishti Mains Question

Explain the interconnection between the climate crisis and rising food insecurity globally and suggest the measures to deal with these issues simultaneously.