



## Climate Impact on Women in Agri-Food Systems

**For Prelims:** Rashtriya Mahila Kisan Diwas, [Loss and Damage Fund](#), [Climate Change](#).

**For Mains:** Impact of Climate Change on Women Farmers, Role of Women in Agriculture, Employment & Output, Food Security

**Source:** DTE

### Why in News?

A recent study published in the journal **Frontiers in Sustainable Food Systems** highlights the unequal impact of the [climate crisis on women engaged in agri-food systems](#) across the globe.

- The research sheds light on the **vulnerability of women in agricultural sectors** and identifies hotspots where climate risks are most severe.

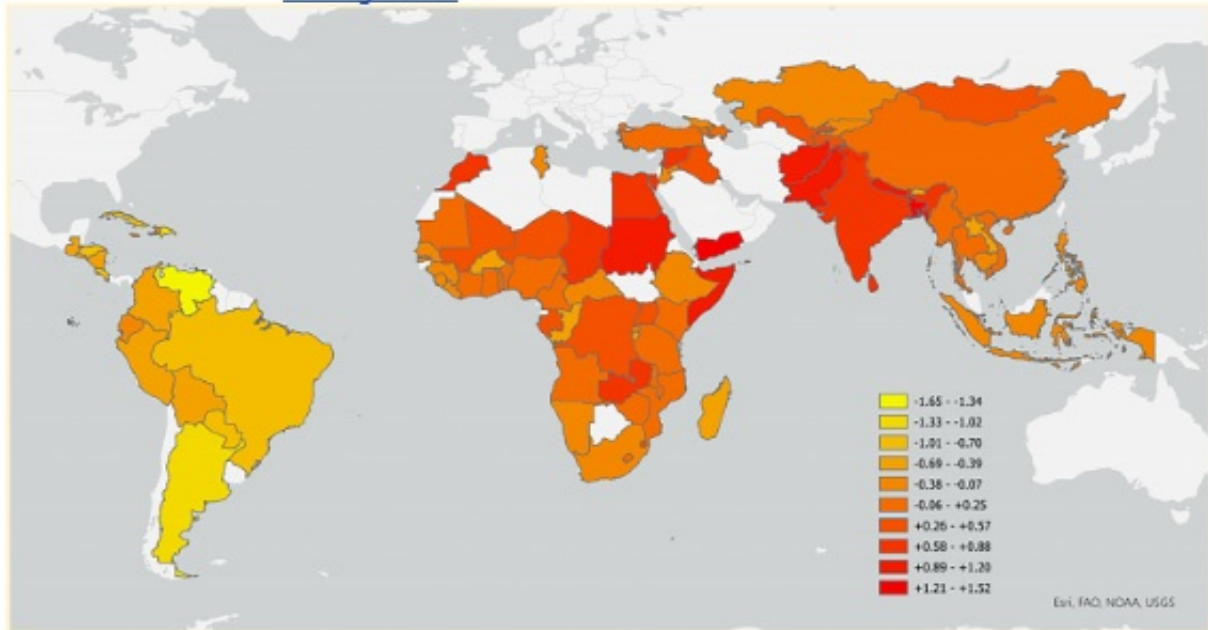
Note:

- Agri-food systems are the **networks of people**, activities, and resources that produce, process, distribute, and consume food.
  - They include farmers, traders, processors, retailers, consumers, and others, who are involved in the food value chain.

### What are the Key Highlights of the Study?

- **Global Ranking of Climate Change Threats:**
  - The study ranks 87 countries based on the climate change threat faced by women in agri-food systems.
    - **India ranks 12<sup>th</sup>**, with other Asian nations like Bangladesh, and Pakistan, Afghanistan, and Nepal also facing significant risks.
- **Identification of High-Risk Regions:**
  - Agri-food systems, encompassing production, post-harvest handling, and distribution, are particularly at risk.
  - Within African and Asian regions, central, **east and southern Africa and west and south Asia** emerge as regions with heightened vulnerability.
    - People living in **low-and middle-income countries (LMIC)** are at heightened risk.
- **Climate Agriculture Gender Inequality Hotspots:**
  - The research combined insights on **climate, gender and agri-food systems** to map the regions as '**climate-agriculture-gender inequality hotspots**'.
  - The study calculated each country's risk based on these indicators and plotted the score

- for each LMIC country on a color-coded map.
- The hotspot maps can guide gender-responsive climate action, especially in upcoming climate conferences like [Climate Conference \(COP 28\)](#) and climate investments.
  - This is particularly relevant in ongoing negotiations around a [loss and damage fund](#) and other climate investments.



#### ▪ **Policymaking and Climate Action:**

- The study serves as a crucial entry point for **policymaking** by illustrating the unequal impact of hazards on women in agriculture.
- Previous studies highlighted that **women and girls are more likely to go hungry** following natural disasters linked to climate change.
  - In India, **twice the number of women compared to men reported eating less** in response to a [drought](#).
- The hotspot maps can aid decision-makers and investors in **targeting finance and investments** to areas where women are hardest hit by climate change risks.

### **How does Climate Change Affect Women Engaged in Agri-Food Systems?**

#### ▪ **Reduced Food Security and Income:**

- Climate change disrupts agricultural production, reduces crop yields and quality, and increases the risk of pests and diseases.
  - This **affects the food security and income of women farmers**, who often depend on agriculture for their livelihoods.
  - Women farmers also face more challenges in **accessing markets, credit, inputs, and extension services**, which limits their ability to cope with climate shocks and stresses.

#### ▪ **Increased Workload:**

- Climate change increases the **demand for water, labour, and natural resources**, which adds to the workload of women farmers, who are often responsible for collecting water, fuelwood, and fodder, as well as performing **household and care duties**.
- Women farmers also have to adapt to **changing weather and rainfall patterns**, which may require them to adopt new crops, **technologies, or practices, or to migrate to other areas**.

#### ▪ **Reduced Health and Well-being:**

- Climate change affects the health and well-being of women farmers, who are more exposed to **heat stress, waterborne and vector-borne diseases, malnutrition, and mental stress**.
  - Women farmers also have **less access to health care**, sanitation, and hygiene facilities, which increases their vulnerability to climate-related health risks.

- Climate change also exacerbates **gender-based violence**, especially in conflict and disaster situations.

- **Limited Participation and Empowerment:**

- Climate change affects the participation and empowerment of women farmers, who are **often excluded from decision-making processes** and institutions related to agriculture and climate change.
- Women farmers also have less access to information, education, and training, which **limits their awareness and capacity to adapt to climate change**.
  - Women farmers also face social and cultural norms and barriers that restrict their mobility, autonomy, and rights.

## What are the Government Initiatives Related to Women in Agri-Food Systems?

- **Rashtriya Mahila Kisan Diwas** (celebrated annually on **October 15<sup>th</sup> in India** to recognize and appreciate the valuable contribution of **women farmers in the agricultural sector**).
- **National Mission on Sustainable Agriculture (NMSA)**.
- **Paramparagat Krishi Vikas Yojana**.
- **Mahila Kisan Sashaktikaran Pariyojana (MKSP)**.
- **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)**

## Way Forward

- Enhance **women's access to and control over resources**, services, and opportunities, such as land, water, credit, inputs, markets, extension, and social protection.
- Promote **women's involvement and leadership in decision-making** and governance structures, such as farmer groups, cooperatives, committees, and policy platforms.
- Strengthen **women's knowledge and skills on climate-smart agriculture**, disaster risk reduction, and climate information and early warning systems.
- Support women's empowerment and agency, by addressing the underlying causes of gender inequality, such as social and cultural norms, legal and institutional barriers, and gender-based violence.

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

### **Mains:**

**Q.** Discuss the various economic and socio-cultural forces that are driving increasing feminization of agriculture in India. **(2014)**