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Feeding Pakistan in a changing climate

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Despite contributing less than 1% to the global carbon footprint, Pakistan is facing some of the most severe consequences of climate change. Pakistan is ranked as the fifth most climate-vulnerable nation in the world by the Global Climate Risk Index. In a country already struggling with socioeconomic challenges, the impact of climate change acts as a significant threat multiplier. (1) In 2020, 720 to 811 million people experienced hunger, with climate change exacerbating the risks of malnutrition through various interconnected mechanisms. In 2020, heatwaves during crop growth seasons contributed to 3.7 percentage point increase in moderate to severe food insecurity. (2).
In Pakistan, 43% of the population is food insecure, with 18% facing acute food shortages. Climate change, through increased carbon emissions and erratic weather patterns, lowers the nutritional density of food crops and induces droughts, disrupting food supply and production. (3)

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Pakistan is high on the 2023 Global Hunger Index with a score of 26.6 placing it on 102nd position out of 125 counties highlighting the devastating starvation and malnutrition faced by the population of Pakistan. Currently, 18.5% of the population is undernourished and chronic malnutrition is a reality for 37.5% of children. Immediate and comprehensive intervention is required to improve food security and nutrition. (4)

The floods in Pakistan in 2022 exacerbated the condition of food insecurity worse. The Food and Agriculture Organisation (FAO) predicted that in August 2022, 9.4 million acres of agriculture could flood. According to a post-disaster needs assessment published in October 2022, there might be a 5.9 percentage point rise in poverty, placing an extra 1.9 million households at risk of becoming impoverished. (5)

These obstacles have impeded Pakistan's advancement toward Sustainable Development Goal 2 (SDG 2). The Government of Pakistan launched National food Security policy, National Climate change policy and Punjab Agriculture policy to tackle this issue.

Climate-smart agriculture (CSA) is a framework that facilitates the implementation of strategies aimed at converting agri-food systems in Pakistan to climate-resilient practices, which include high-efficiency irrigation systems, integrated pest management, stress-tolerant crops, crop rotation, and crop diversification. (6)

It is also consistent with the FAO Strategic Framework 2022–2031, which is built on the Four Betters—better nutrition, better production, a better environment, and a better quality of life for all—so that nobody is left behind. (7)

Conclusion, Recommendations

Collaborations with multinational agencies like the FAO, World Bank and foreign research institutes can supply the finance, new technology, and technical know-how needed to put CSA into practice. Implementing CSA in Pakistan could significantly enhance food security and nutrition, helping to mitigate the severe impacts of climate change on the country's vulnerable populations.

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