



Climate Change and its Impact on Food and Nutrition Security in Pakistan

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Dear Editor-in-Chief

Climate change causes new patterns of crops, cultivation and humans and animal disease, and affectation new risks for food security, safety and human health. Effects of climate change may be positive or negative, resulting from the complex interactions of temperature and precipitation (1). World Health Organization (WHO) defines food security as “when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life.” Concepts of food security are both physical and economic access to food that meets people's dietary needs (2). Climate change will affect the key conditions for good health; clean air, water, food, shelter and the control of disease. In 21st century, climate change is contributing to the global burden of disease, human health, food and premature death (3). Direct impact of climate change on agricultural production and the food system as a whole is in turn expected to translate into increasing prevalence of malnutrition. Thus, climate change has an indirect impact on nutrition insecurity and a more direct impact on food availability and access depending on the type of livelihood system people are relying on (4).

According to the World Food Summit, define food security as “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.” (5). Food and nutrition security is based on four key pillars: Availability: The availability of enough, good quality food, distributed through household production or imports with the center of attention on national and regional altitudes. Access; It is about individuals and households having ample resources for getting hands on appropriate foods to attain a nutritious diet. Food access is closely linked to income and/or food poverty factors. Utilization; Proper utilization of food based on knowledge, feeding practices, access to adequate water, sanitation and health care practices. Stability; It is affected both food availability and food access this pillar highlights the importance of having food available and being able to access food at all times both throughout the month, year and in the future. A household or individual must has risk to access to food because of sudden shocks (6).

Pakistan economy is based upon agriculture. At present agriculture of Pakistan is facing very serious problems like irrigation water shortage and less rainfall due to climate change (7). Certain crops are climate sensitive in Pakistan such as rice, vegetables, cereals, spices and other grains. Rising temperature and changing rainfall is resulted in

the form of shortage of water, which further leads towards the problems of food security due to low productivity especially in cropped food sector. Food insecurity is crucial and greater hindrance to social and economic development of the country and needs critical scientific inquiry, and idea of viewing this issue in terms of climate change carries with it multipronged strategy to address the issue seriously.

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References

1. Beddow J, Pardey P, Seeley M (2012). Changing Agricultural Climate: Implications for Innovation Policies. Food Policy Research Center. University of Minnesota. Available at: <https://www.foodpolicy.umn.edu/policy-summaries-and-analyses/changing-agricultural-climate-implications-innovation-policies>.
2. WHO (2013). Diet, Nutrition and the Prevention of Chronic Diseases. Report of a joint WHO/FAO expert consultation. Technical report series 916. Geneva: World Health Organization.
3. Caesens E, Rodriguez MR, Figueroa-Irizarry I, Gillard T, Pershing-Foley Z, Rosenblum P (2009). Climate Change and the Right to Food: A Comprehensive Study. *Publication Series on Ecology*, Vol. 8. Columbia Law School Human Rights Institute, Heinrich-Böll-Stiftung.
4. Crahay P (2010). The Threats of Climate Change on Under-nutrition. A neglected issue that requires further analysis and urgent actions. In: United Nations Standing Committee on Nutrition (SCN), SCN News 38 2010: Climate change – food and nutrition security implications. SCN, Geneva.
5. WFP (2009). Emergency Food Security Assessment Handbook. Second edition. World Food Programme, Rome.
6. FAO (2006). Food Security; Policy Brief. Food and Agriculture Organization of the United Nations, Rome.
7. Ahmed A, Henna I, Chaudhry GM (2008). Water resources and conservation strategy of Pakistan' paper presented in 23rd Annual General Meeting & Conference of Pakistan Society of Development Economics, March 12-14, Pakistan Institute of Development Economics, (PIDE Islamabad).