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PRESS RELEASE

Almost 75 Crore people in South Asia affected by climate hazards in last decade

New report underlines vulnerability of agriculture to climate hazards

Patna, (June 7, 2017) – Almost 750 million (75 Crore) people in South Asia were affected by a combination of climate hazards in the decade after 2000, according to a new research report by the International Water Management Institute (IWMI). The report further identifies agriculture as the most vulnerable sector.

Launching the report at a policy dialogue workshop, Prof. Chandrashekhar, Minister of Disaster Management Department, Government of Bihar, said, "Bihar experiences heavy floods despite not receiving good rains. This is mostly due to water coming in from neighboring states and countries. On the other hand, we suffer twice, as people of Bihar do not receive enough water to meet their requirements during the dry season. India has no shortage of talent, but devotion and motivation is required to implement a successful initiative which benefits people. Satellite-based insurance is a historic initiative; our department will extend all support to this effort."

The research report presents a detailed approach to mapping hazards and identifying risks for floods, droughts, extreme rainfall, extreme temperature and sea-level rise in South Asia. The study applies for the first time a consistent methodology across different climate-related hazards, includes assessment of the population affected along with agricultural losses and makes use of spatial data and customized tools.

Speaking at the event, Mr. Alok Kumar Mehta, Minister for Co-operative Department, Government of Bihar added, "Awareness needs to be built about preventive actions not just at a policy level but also at an individual level. Enabling private participation and investing in technological innovation would help Bihar deal with weather disasters in a better fashion. Multiple agriculture insurance schemes lead to duplication. It needs integration and convergence, which satellite data and technology can perhaps help with. I offer full cooperation from my department to take forward this initiative."

Jointly organized by the Government of Bihar, IWMI and ICAR Research Complex for Eastern Region (ICAR-RCER), the policy workshop also brought together representatives from state and central government agencies, NGOs, private insurance companies, panchayat, farmers and development partners. Ideas and expertise were exchanged on identifying climate adaptation solutions, using the latest technology to promote better resilience among small and marginal farmers and vulnerable communities.

Climate variability poses a significate threat to populations across the world, with the poor and disadvantaged at the greatest risk. South Asia, and the Indo-Gangetic plain in particular, is at high risk

from floods. According to the Government of India, the country's economy is closely linked to its natural resource base, with millions of people dependent on climate-sensitive livelihood sectors, such as agriculture, water, and forestry. The state of Bihar is vulnerable to both floods and droughts. Being the most flood-prone state in the country, it has suffered an agricultural loss of almost 22 billion Rupees (0.34 billion USD) in the past 12 years due to floods.

Against this background, participants also discussed key initiatives on flood insurance and drought monitoring being implemented in Bihar by the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), CGIAR Research Program on Water land and Ecosystems (WLE) and IWMI, along with partners. The initiatives help to transfer risk innovatively, using advances in satellite technology and modeling tools. A four-year project, Index-based flood insurance (IBFI) was initiated in 2015, with the aim of developing effective payout schemes to protect low-income communities in flood-prone areas by improving their ability to cope with flood risks. The team is working with the Department of Disaster Management, Bihar, and Ministry of Agriculture (New Delhi) to experiment with the IBFI product for the 2017 monsoon season.

"This project, apart from being the first such attempt on a large scale in the two countries – India and Bangladesh – is also a trendsetter for catastrophe insurance in natural disaster-prone developing countries. The setup and social network are further advanced in India and are in the final stage of implementation," said Giriraj Amarnath, Lead Scientist and Senior Researcher at IWMI.

Another initiative, the South Asia Drought Monitoring System (SADMS), provides near real-time information on drought onset and progression to help decision makers respond. The SADMS tool combines satellite images of vegetation with data on weather, soil moisture levels and crop yields. It helps predict the severity of coming dry spells and their expected length. Participants discussed how SADMS could help in agriculture drought management and contingency planning by collaborating with Indian council of Agricultural Research (ICAR) institutes and other agencies.

"Risk transfer and climate adaptation strategies are the need of the hour for a vulnerable region like India. Resilience needs to be built at multiple levels from institutional setups to building physical infrastructure. Key partnerships across the value chain would help in better preparation and response to future extreme climate events," said Dr Alok Sikka, IWMI-India Representative at New Delhi.

The workshop was attended by experts from multiple organizations, including the Agriculture Insurance Corporation (AIC), BSDMA (Bihar State Disaster Management Authority), Indian Meteorological Department (IMD), Indian Council of Agricultural Research (ICAR), private insurance firms, MFIs , farmers and others.

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Additional information

- **IWMI Research Report 170: Mapping Multiple Climate-related Hazards in South Asia** is a study by IWMI). You can download your free copy here : https://goo.gl/LYgh1i

- **Short film on IWMI's Flood Insurance initiative-** https://www.youtube.com/watch?v=OcdEsbF3RFY&t=3s

- The **International Water Management Institute (IWMI)** is a non-profit, scientific research organization focusing on the sustainable use of water and land resources in developing countries. It is headquartered in Colombo, Sri Lanka, with regional offices across Asia and Africa. IWMI works in partnership with governments, civil society and the private sector to develop scalable agricultural water management solutions that have a real impact on poverty reduction, food security and ecosystem health. www.iwmi.org

- The **CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS**) is a strategic partnership of CGIAR and Future Earth, led by the International Center for Tropical Agriculture (CIAT). CCAFS brings together the world's best researchers in agricultural science, development research, climate science and Earth System science, to identify and address the most important interactions, synergies and tradeoffs between climate change, agriculture and food security. www.ccafs.cgiar.org.

- The CGIAR Research Program on Water, Land and Ecosystems (WLE) combines the resources of 11 CGIAR centers, the Food and Agriculture Organization of the United Nations (FAO), the RUAF Foundation, and numerous national, regional and international partners to provide an integrated approach to natural resource management research. WLE promotes a new approach to sustainable intensification in which a healthy functioning ecosystem is seen as a prerequisite to agricultural development, resilience of food systems and human well-being. This program is led by the International Water Management Institute (IWMI) and is supported by CGIAR, a global research partnership for a food-secure future. www.wle.cgiar.org

- **CGIAR** is a global partnership that unites organizations engaged in research for a food secure future. CGIAR research is dedicated to reducing rural poverty, increasing food security, improving human health and nutrition, and ensuring more sustainable management of natural resources. It is carried out by the 15 centers who are members of the CGIAR Consortium in close collaboration with hundreds of partner organizations, including national and regional research institutes, civil society organizations, academia, and the private sector. www.cgiar.org