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MEDIA RELEASE

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MANY EXISTING SOLUTIONS FOR CLIMATE CHANGE RESILIENCE - MOVE ON NOW TO SCALING SOLUTIONS

There are proven, scalable technologies and practices to reduce greenhouse gas (GHG) emissions and help small-holder farmers adapt to climate change to build resilience for food security. They must be urgently deployed with adequate policy and financial support because climate change is already disrupting food systems in Asia and Africa, with severe impacts.

This was the key message of **Dr Aditi Mukherji**, Principal Scientist, Climate Action in the Livestock, Climate and Environment Program of the International Livestock Research Institute in her overview address at Australia's key food security event. The Crawford Fund annual conference, *Progress and Prospects for Climate-Resilient Agrifood Systems: Actionable Recommendations for Policymakers and Practitioner* is to be held in Parliament House, Canberra on 11-12 August.

Speakers from around the globe and Australia will offer their solutions for transforming agrifood systems in response to climate change, addressing the trade-offs between food production and net-zero targets, pursuing sustainable intensification, and promoting inclusivity and equity.

"Across Asia and Africa, over 2.5 billion people depend on agriculture for livelihoods and food security. Also across both continents, rain-fed agriculture accounts for over 90% of staple crop production, making it acutely vulnerable to erratic rainfall and temperature extremes from current and projected climate change," said Dr Mukherji, whose areas of specialization are climate change adaptation, agricultural resilience for small holder producers, climate governance, water-energy nexus and community governance of natural resources.

"At Australia's doorstep in Asia, monsoon variability, glacier retreat affecting all perennial rivers, sea-level rise, and extreme heat threaten food production in densely populated river basins and deltas, such as the Ganges, Mekong, and Indus. Fisheries and aquaculture, which provide more than 20% of animal protein in many Asian countries, are also increasingly disrupted by warming and ocean acidification. And without adequate adaptation, cereal yields could decline by 10–30% by 2050 across both regions,"she told over 300 experts, policymakers, researchers and students.

"While relatively under researched, yields of non cereal crops, as well as nutrition content of all major food groups, also declines at higher level of global warming.

"These disruptions deepen food insecurity, affecting a disproportionate share of the 783 million people globally who are already undernourished, and exacerbating inequality for smallholders, women, and youth."

"It is particularly frustrating that a range of solutions exist, encompassing adaptation and mitigation and their various cobenefits with nutrition."

"We must scale these solutions. Climate-smart agriculture, including drought- and heat-tolerant crops, efficient irrigation, and agroecological practices, offers immediate adaptation benefits while leveraging digital tools such as AI-powered climate services, decision-support platforms, and mobile-based advisory systems helps small holder producers be better prepared for climate induced hazards like floods and droughts."

"Technological breakthroughs include methane inhibitors, improved forages, green ammonia, and site-specific nutrient management - all interventions that simultaneously boost productivity and reduce emissions."

"Scaling these solutions requires targeted adaptation finance, inclusive governance, and enabling policy frameworks and calls for a just transition that prioritizes equity, gender inclusion, and support for smallholders producers in Africa and Asia," she concluded.