



Transforming Agrifood Systems in South Asia



TRANSFORMING AGRIFOOD SYSTEMS IN SOUTH ASIA (TAFSSA)

A One CGIAR regional integrated initiative to support actions that improve equitable access to sustainable healthy diets, improve farmers' livelihoods and resilience, and conserve land, air, and water resources in South Asia

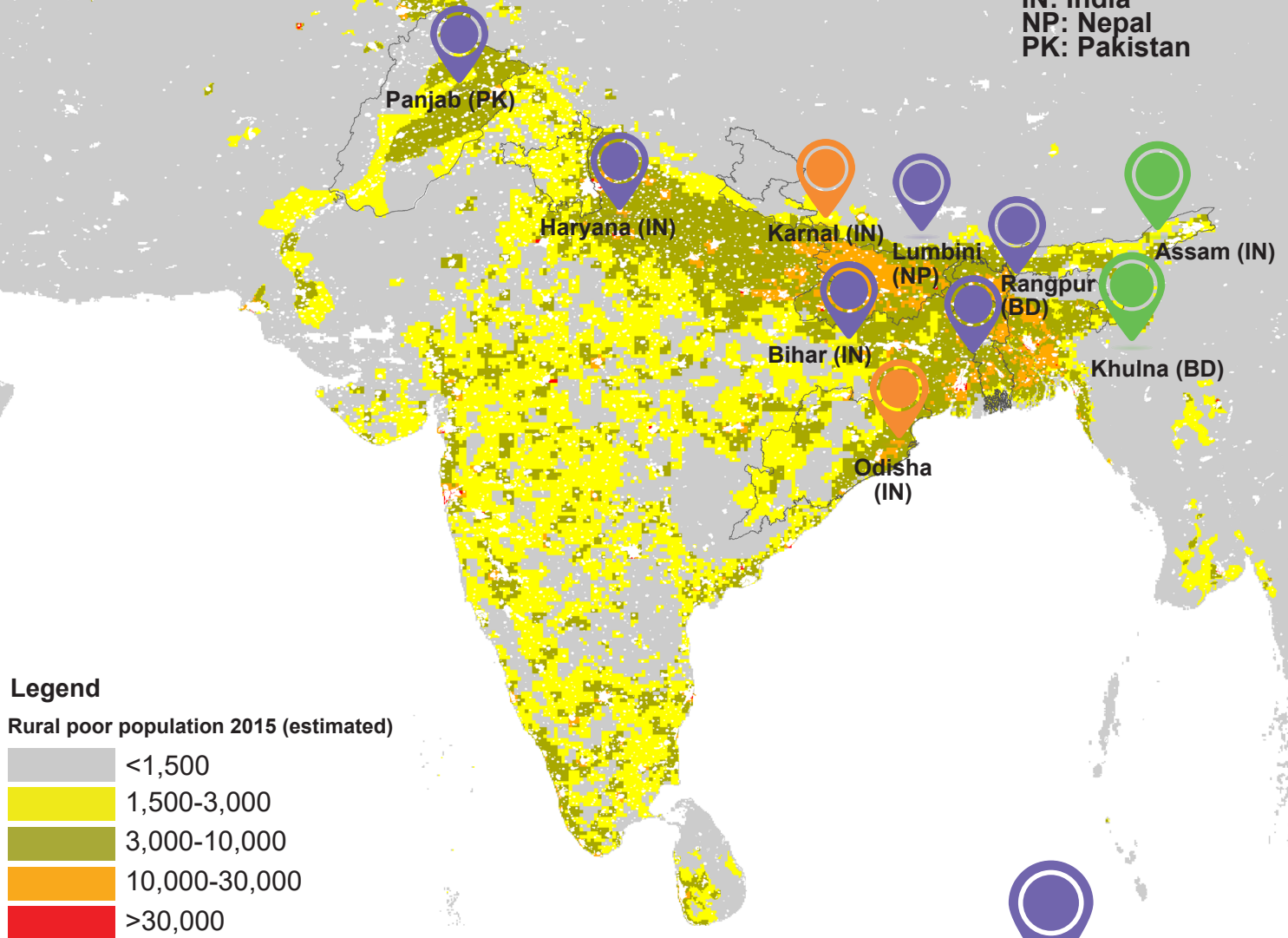
CONTEXT

Home to a quarter of humanity—a fifth of whom are youth (15-24 years old)—South Asia carries the highest density of poverty and malnutrition globally. Despite producing over a quarter of the world's consumed food, the region's agri-food systems suffer from social, economic, and geographic inequalities, and face formidable environmental issues. Agri-food systems currently fail to produce an adequate and affordable supply of the diverse foods needed for sustainable healthy diets accessible to people of all means in all areas. Unhealthy food consumption is rising. Farming systems are threatened by unsustainable groundwater withdrawal (the region extracts a quarter of global groundwater) due to food and energy policy distortions. In addition, South Asia's farmers are both contributors to and victims of climate change and extreme weather, which contributes to rural out-migration — particularly of youth — resulting in rising labor scarcity and increased production costs.

APPROACH

These challenges can only be overcome by transforming food, land, and water systems to support planetary health diets. Actionable evidence, coordinated efforts, and truly scalable innovations are urgently needed. Working across South Asia, Transforming Agrifood Systems in South Asia (TAFSSA) will deliver a coordinated program of research and engagement from farmer to consumer to improve equitable access to sustainable healthy diets, improve farmer livelihoods and resilience, and conserve land, air, and groundwater resources.

BD: Bangladesh
 IN: India
 NP: Nepal
 PK: Pakistan



Legend
 Rural poor population 2015 (estimated)

Grey	<1,500
Yellow	1,500-3,000
Olive Green	3,000-10,000
Orange	10,000-30,000
Red	>30,000

GEOGRAPHIC FOCUS

TAFSSA will begin its work in four countries — Bangladesh, India, Nepal, and Pakistan — where research in 10 “learning” sites can contribute to local impact and benefit from opportunities for scaling out. These diverse locations are “hot spots” of poverty, malnutrition, social inequity, environmental degradation, and climate risks, where significant development impact is possible.



Two sites in rainfed mixed farming systems



Six sites spanning the Indo-Gangetic Plain’s continuum of irrigated and semi-irrigated rice-based systems



Two sites where rainfed-rice fallows are common

PARTNERSHIP

TAFSSA will place research within active development practice by working closely with South Asia’s major change agents in agriculture, environment, public health, social equity, and food systems, focusing on regional research for local and global impact. CGIAR scientists, based in South Asia, will partner with academic, policy, and business leaders, and engage with other One CGIAR initiatives in the region to integrate solutions across agri-food systems that chart new pathways to sustainable healthy diets.

KEY ACTIVITIES

Test, adapt, target, and position agronomic technologies and practices supporting crop and animal diversification across the region's farming systems, while developing strategies to render agricultural value chains more inclusive.



Undertake participatory value chain studies to identify ways to address market and structural- inefficiencies in delivering diverse foods.



Identify and test strategies to reduce agriculture-related air pollution and regenerate land and water resources.



Identify pathways to sustainable healthy diets through greater awareness, increased affordability, and lower gender and time constraints to food acquisition and consumption of sustainable healthy diets.



Use insights from behavioral sciences and policy research to galvanize actions tackling climate risks among farmers.



Create integrated databases and identify critical data needs to support effective actions across food systems.





Photo Credit: Salkat Mojumdar, for CIMMYT Bangladesh, 2016.

INNOVATIONS



Nutrition sensitive farming systems and landscapes

Activities in South Asia's rice-based systems, mixed farming systems, and rice-fallow systems across diverse environments will result in targeted and socially inclusive options to optimize farming outcomes. TAFSSA research will generate insights supporting sustainable and nutrition-sensitive landscapes, while developing business models and pathways for policies supporting jobs.

Combining insights from agriculture, nutrition, anthropology, economics, and sociology with data-collection innovations in ethnography and survey methods, TAFSSA will test and generate a toolbox to deepen insights on dietary determinants and inform actions across value chains.



Tools for understanding major drivers of dietary choices, taking a plate-to-farm perspective.



Risk-reducing innovations for improving livelihoods and environmental health

TAFSSA research will focus on links between crop-residue burning and unsustainable groundwater management to find policy options for reducing air pollution and stress on groundwater and improving farmers' capacity to adapt to risk.

To address access and affordability constraints, TAFSSA will work with the private sector to test shorter value chains and high-value produce aggregation methods that allow farmers to respond profitably to consumer preferences. The potential of social safety nets and other programs to support affordable nutritious diets will also be examined.



Pathways to overcome access and affordability constraints to sustainable healthy diets



Dynamic data systems for relevant food system solutions

Collaborating with partners, TAFSSA will create a dynamic data collection and analysis system capturing production, consumption, price, food market, and environmental data. This end-to-end system, with a strong social equity lens, will support design and adaptation of partners' agriculture, environment, and nutrition programs.

To learn more, please contact:

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CGIAR is a global research partnership for food-secure future. Visit <https://www.cgiar.org/research/cgiar-portfolio> to learn more about all the initiatives in the CGIAR research portfolio.