Key Highlights

Food Systems Innovation Workshop 2021
Organised by Govt of Telangana & UNDP

The Food Systems Innovation Workshop was conducted to tap into the power of collective intelligence of the participants for actionable insights in designing innovative policies backed by data ecosystem to make the most of the combined efforts of people, data and technology.

Participating Organizations

NITI Aayog

Professor Jayashankar Telangana State Agricultural University

The Rockefeller Foundation

World Economic Forum

Dark Matter Labs

RICH

Aajeevika

FDRVC Value for India

WFP World Food Programme

SERP

JADS Jheronimus Academy of Data Science

analytics for a better world

Reliance Fresh

Tilburg University Understanding Society

Sathguru Since 1985 Catalysing Success

tanager

Cropin

Food System Innovations

► Context

UNDP has partnered with Government of Telangana to jointly initiate the NextGenGov ‘Data for Policy’ initiative on Food Systems.

The aim is to incorporate anticipatory governance models for future-fit food systems in Telangana using data-driven policymaking tools and ecosystem-driven approaches.

► Key Questions

How can data-driven innovations bring transformative effects to food systems?

What policy pain points in food systems can be addressed by data-driven innovations and where are the opportunities?

How can we collaborate to promote ‘data for policy’ for food systems in Telangana?

► Key Priorities

- Innovation in Food system is important to feed the growing population while also protecting the environment and the economies. It is important to tap into the vibrant innovation ecosystem of Telangana which has rich community driven grassroots solutions along with cutting edge technologies.
- Alignment of our strategies with the goal of Central Government on Doubling Farmers Income and ensure that value capture happens closer to the farmers to enhance their income is a priority. Element of sustainability is very important along with Gender equity as women labour force participation in agriculture is high but it gets under valued when it comes to income distribution.
- Developing solutions that are community-centric, equitable, futuristic and relevant to farmers are very important. We need more collaborations and synergies with organizations that can think through food systems for future.
- Agriculture was impacted by COVID causing disruptions in supply chain. We need to design portfolio of solutions that leverages community innovations to make the Food systems more resilient and sustainable, post COVID.

Strategic Capacities to Invest..

► Learning Capabilities

What if we could create new incentives and learning opportunities for farmers so that new information around sustainable, resilient, productive farming practices become actionable, and cross-pollinate this practice across communities? How can we nurture literacy around food and nutrition so that more people can develop healthier habits?

► Predictive/Anticipatory Capacity

What kind of data do we need to collect, analyse and share across the system to develop better predictive and anticipatory capacity? Who do we need to share it with and how can we build rapid sensemaking and decision making systems around this data? What if we could unlock latent civic capacity to complement and add to the government's capacity for driving change, with the government providing enabling conditions (e.g. technologies, data, regulatory regime)?

► Radical Traceability and Transparency

How can we build an information package (provenance documentation) around food that can communicate essential information clearly and transparently to actors across the system - from producers to consumers - to build trust in the system and help nurture more sustainable and healthier practices?

Policy Challenges

[Breakout room Discussions]

Advisory systems, information systems

How can we develop more legible and credible information and advisory systems for food system actors?

Unlocking local, civic, indigenous knowledge

How can we unlock bottom-up knowledge and involve more women and marginalised groups in designing and implementing food system innovation?

Increasing productivity and income while addressing sustainability

How do we ensure increase in productivity, better market returns and increase in income for farmers, while also addressing sustainability?

Preventing market gluts & food wastage

How can we prevent market gluts in the future, as well as improve our capacity to deal with excess produce in order to avoid food wastage?

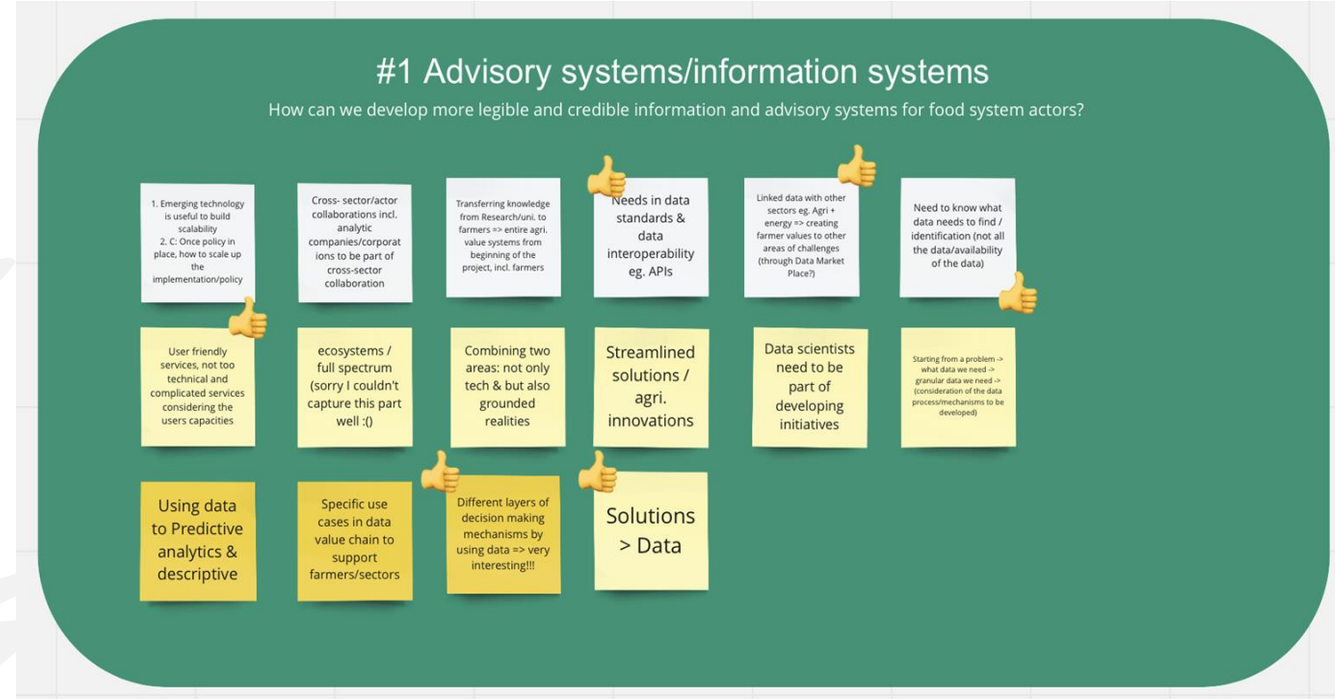
1/Building and Coordinating Information Systems around Food

►Key Question

How can we develop more legible and credible information and advisory systems for food system actors?

►Key Takeaways

- Data Collaboratives/Open Data Platforms for cross-sector collaborations and open access to relevant information
- Granularity and frequency of data should be understood before
- User Interface/Experience to be given importance while designing systems to reduce learning curve for farmers
- Predictive and Prescriptive Frameworks driven by cross-sector collaborations for evidence-driven anticipatory decision making
- Streamline systems and processes to institutionalise (innovation box) pilot experiments for ensuring scalability
- Linked data with other sectors like water or energy for holistic approaches including interventions for Regenerative Agriculture



2/Unlocking Local, Civic, Indigenous Knowledge

►Key Question

How can we unlock bottom-up knowledge and involve more women and marginalised groups in designing and implementing food system innovation?

►Key Takeaways

- Catalogue and dissemination of indigenous knowledge on Natural Resources, Cropping Systems, Food Diversity, Soils and Nutrition and integrating it with emerging technologies
- Food Systems Dashboard for State and benchmarking it with other states or neighboring countries
- Legibility, Governance and Risk relationship of AI models
- Improve learning capability of farmers to adapt dynamic farming systems
- Hyper Personalised local food systems for ecologically and socially relevant food and agricultural systems.

3/Increasing Productivity and Income while Addressing Sustainability

►Key Question

How do we ensure increase in productivity, better market returns and increase in income for farmers, while also addressing sustainability?

►Key Takeaways

- ❖ Satellite mapping and drone surveillance of environmental impact of food system transformations
- ❖ Crop Diversification for climate resilience and measuring its impact on farmers income as well as environmental impact.
- ❖ Micro-community level analysis to support food processing
- ❖ Data mapping for holistic view on the ecosystem and data availability
- ❖ Climate stress and impact on farmers (short-term and long-term)
- ❖ Opportunities for marginal communities and farmers need to be studied
- ❖ Scalable systems that put predictability and models into practice

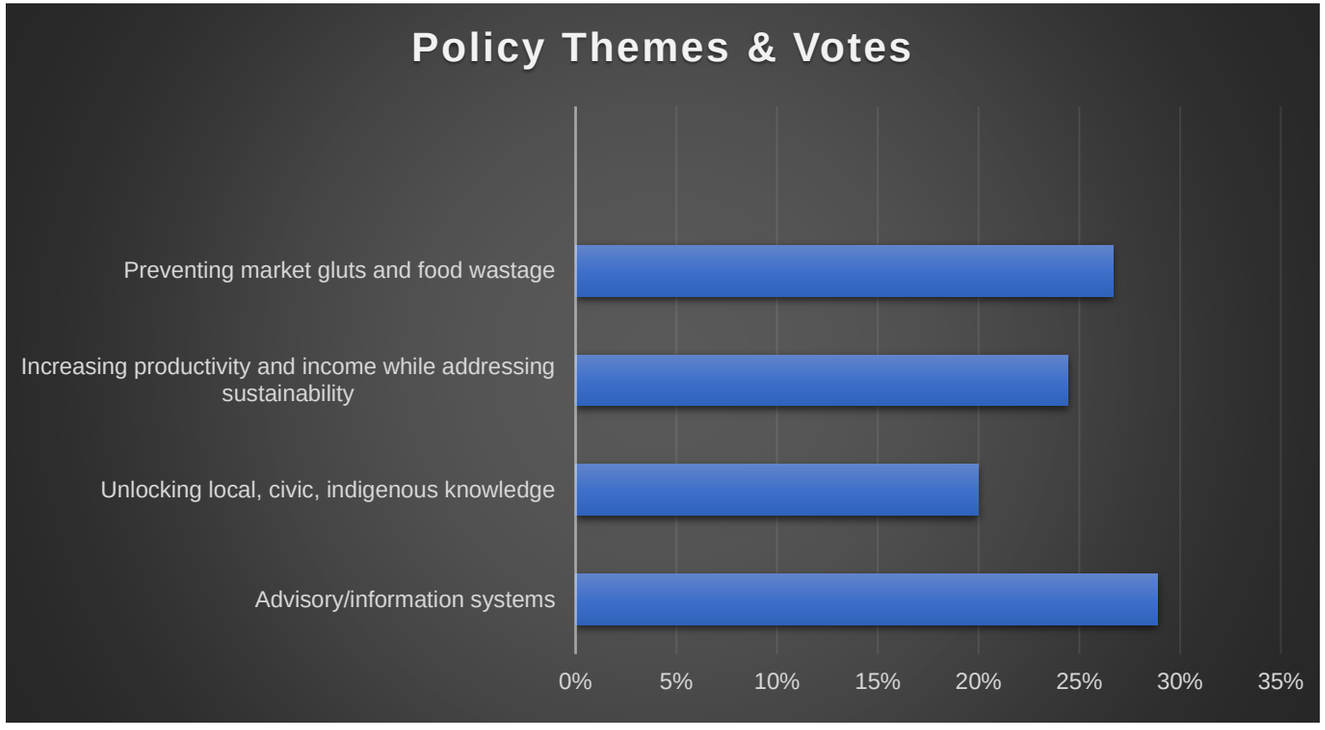
4/Preventing Market Gluts and Food Wastage

►Key Question

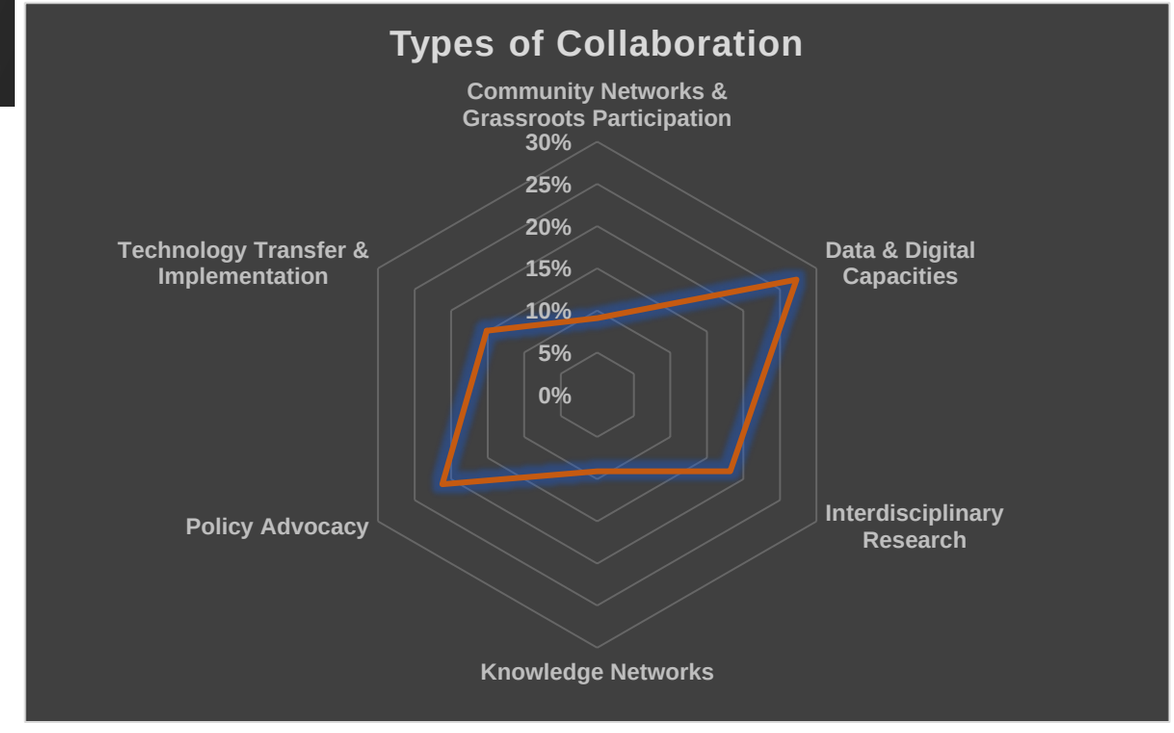
How can we prevent market gluts in the future, as well as improve our capacity to deal with excess produce in order to avoid food wastage?

►Key Takeaways

- Food wastage accounts for 40% and a majority accounted by mismatch between supply and demand
- Supply Side - AI sensing on what is produced
- Demand Side - Market Intelligence made available to farmers
- Quality Assurance of products is important
- Individual farmer level
  - Value/Supply chain mapping
  - Empower farmers to make educated decisions
  - Farmer groups to source rights products at the right price
- Supply Chain Perspective
  - Data ecosystem (Crop selection, warehouses especially geocoded,etc.)
  - End-to-end transparency
  - Cropping plan or Infrastructure (top down approach)


Policy Themes & Votes
Preventing market gluts and food wastage
Increasing productivity and income while addressing sustainability
Unlocking local, civic, indigenous knowledge
Advisory/information systems
0%
5%
10%
15%
20%
25%
30%
35%

Polls


Types of Collaboration
Community Networks & Grassroots Participation
30%
25%
20%
15%
10%
5%
0%
Data & Digital Capacities
Interdisciplinary Research
Knowledge Networks
Policy Advocacy
Technology Transfer & Implementation

Next Steps

- We will reach out to each one of you with respect to specific interests expressed!
- Curate technical proposal with government of Telangana and ecosystem players on strategic experiments for maximizing policy effects; roles responsibilities & milestones
- Continue to facilitate ecosystem level conversations and collaboration on specific strategic experiments
- Policy dialogues with Philippines food systems innovation ecosystem