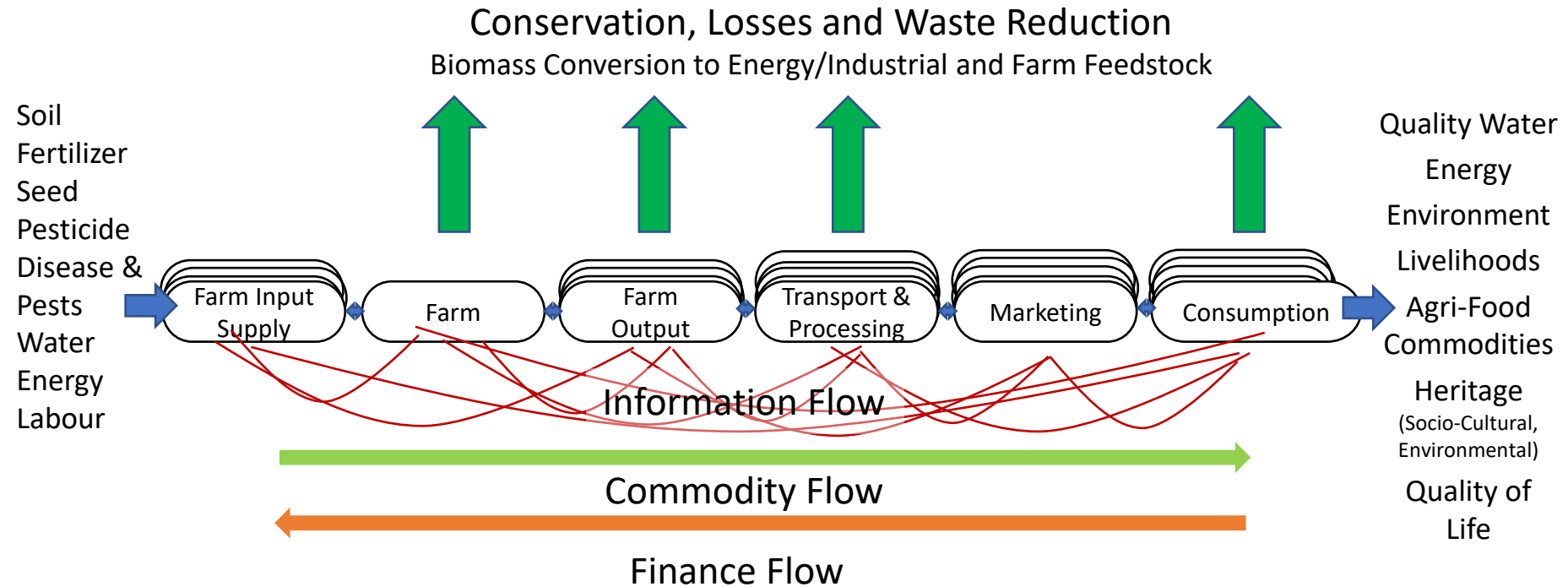


# *Integrated and Interoperable, Open Geo-spatial Databases and Datasets for Agri-food Systems: A Critical Development Need*



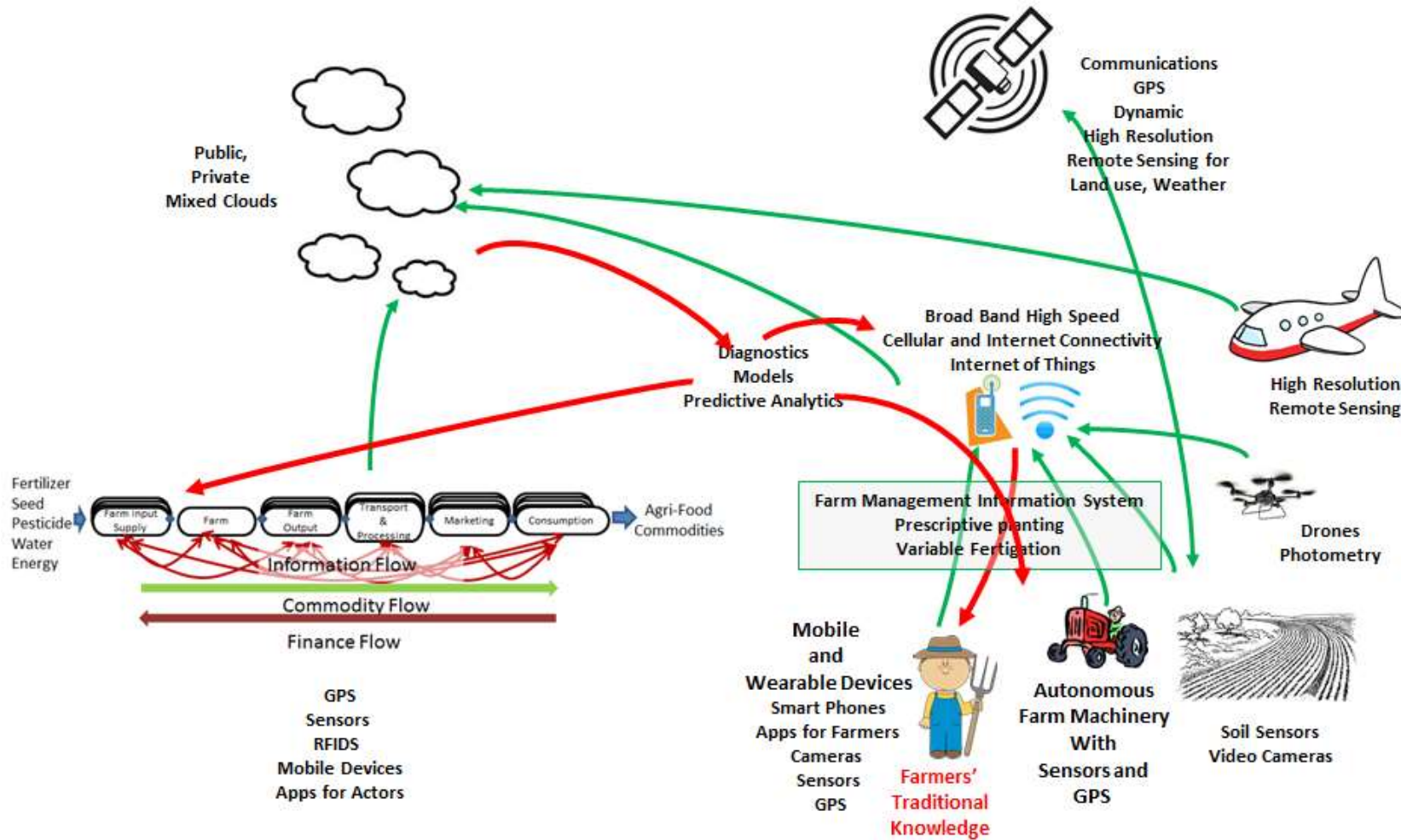
*Ajit Maru*  
*GFAR Secretariat, FAO, Rome*

# Shifting Paradigm of Agriculture

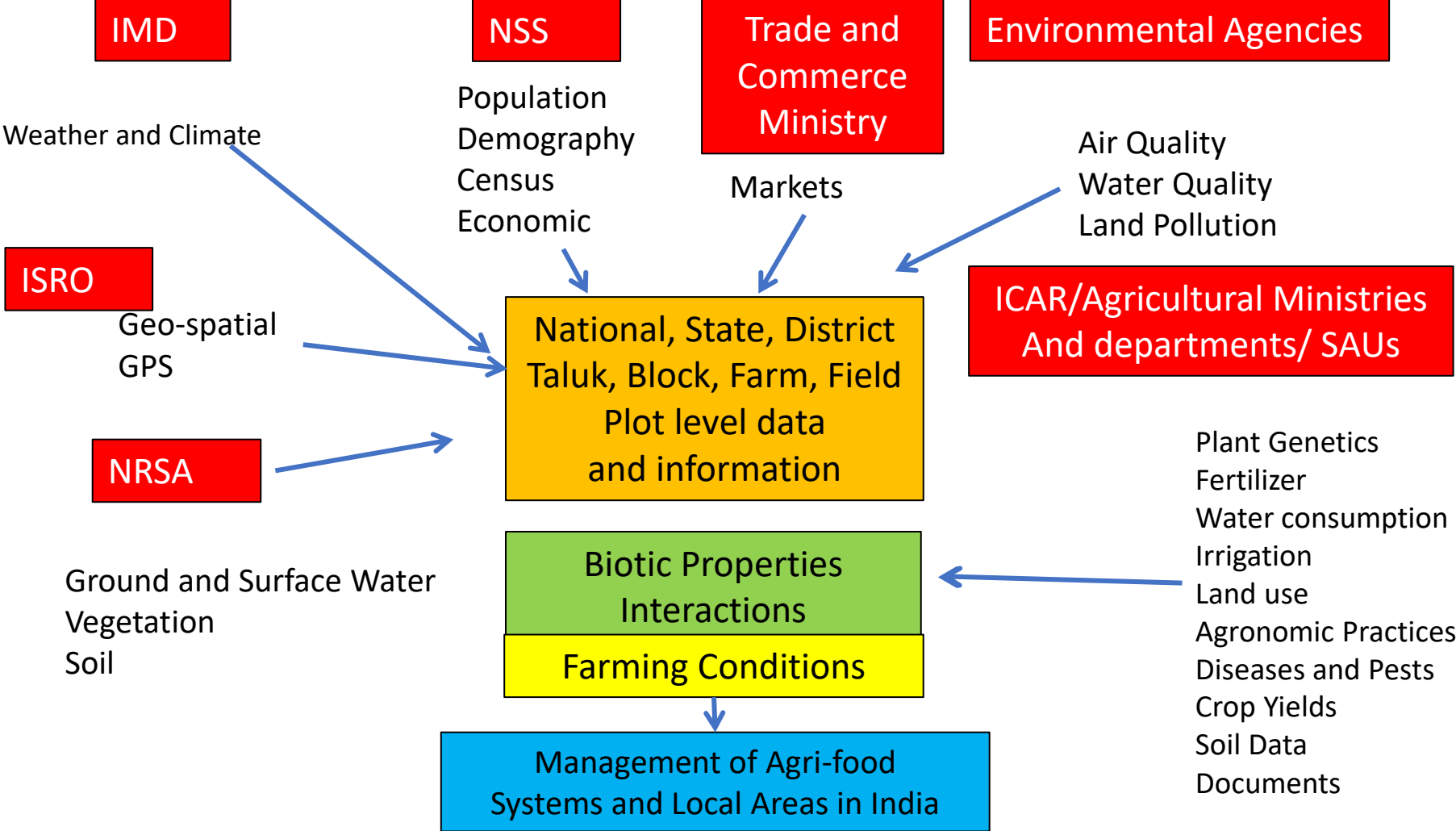


- The development paradigm of agri-food systems of which agriculture and farming are central components, is rapidly undergoing a shift.
- This shift is from production-productivity-profit to improving the efficiency of all resources used in the agricultural production and consumption chain.
- It is affecting all the large to small scale models of intensive, industrial and agro-ecological farming

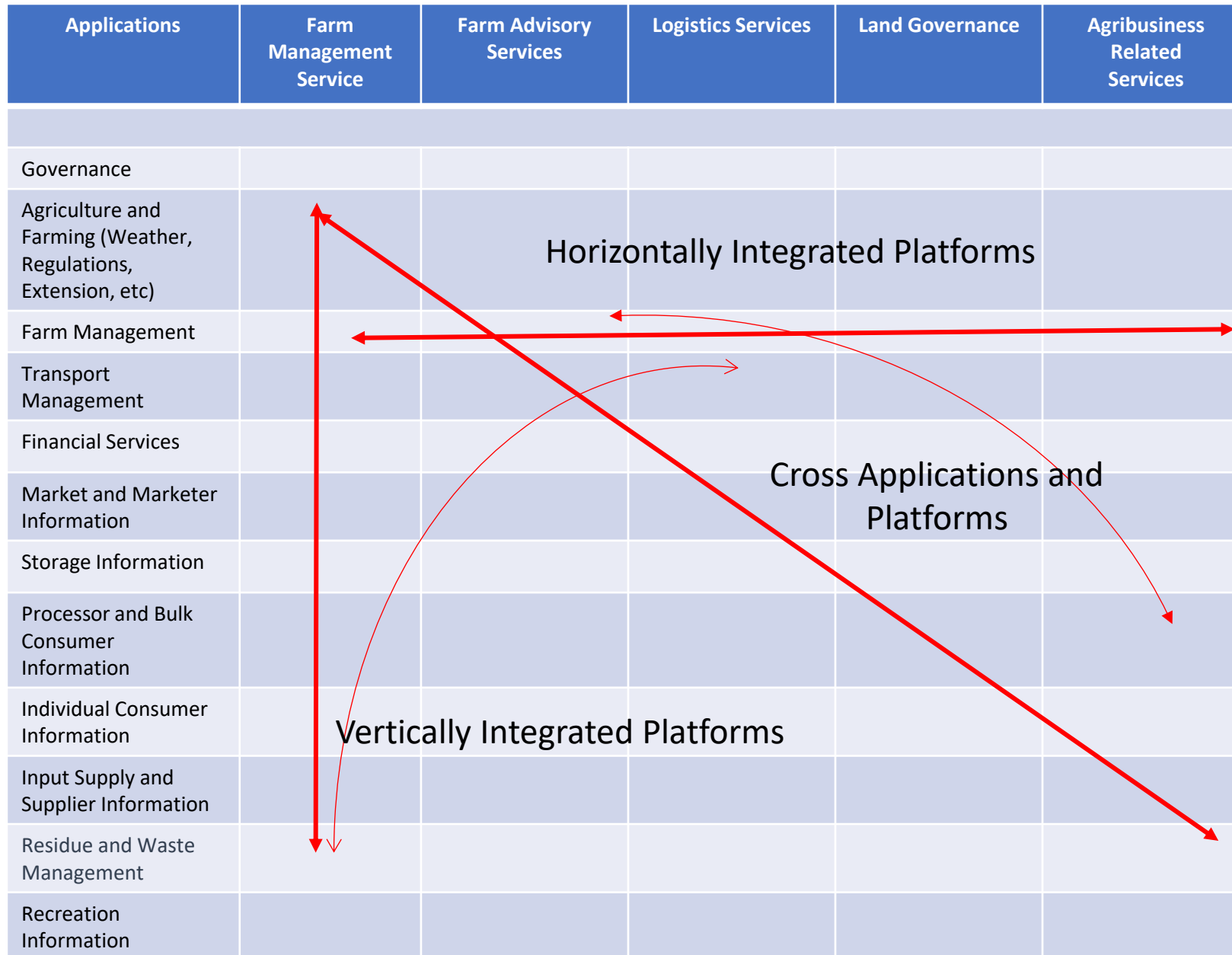
# The Emerging Model of Information Technology Use in Agri-Food Systems



# Data Integration Platforms



# Integration Platforms for Geo-spatial Information Services for Agri-food Systems



# Institutional Innovations Needed

- Open data and information policies
- Implementation of open data and information policies especially in public Institutions such as for agricultural research and space technology
- Governance and Regulatory Mechanisms for data and information flowing through Agri-food systems at International, National and Local levels
- Enabling learning in users, specially farmers and producers, in sharing, exchange use of data and information from Geo-spatial applications
- Promotion and support to Integrative platforms for data and information from Agri-food systems





# Community Inclusion

- Innovations needed
  - Farmer-producer virtual aggregation through cooperatives, producer companies, contract farming for crop planning and management, input supply, use of farm resources, tools and machinery, produce marketing, transport, storage, processing etc.
  - Data Cooperative either as adjuncts to existing farmer cooperative and producer organizations or as standalone new organizations
  - Trust organizations for managing, quality control, sharing, exchanging and clearing house for data and information from multiple sources and for a variety of users



# CIARD and GODAN

- GFAR, the Global Forum on Agricultural Research, is the founding partner of CIARD and GODAN, two global initiatives for advocacy and supporting the open data movement in agriculture, agri-food systems and nutrition
- CIARD (<http://www.ciard.info>) is a movement of Information Specialists to advocate open data development and use in agriculture and its development and support technical issues in data management for openness, integration and interoperability related to agricultural data and information. CIARD with its several activities such as data standards, policy etc targets scientists and information specialists and their organization for its activities. CIARD.RING is the largest agricultural information resources (including databases) directory available globally. GFAR manages CIARD.RING as a Trust organization.
- GODAN (<http://www.godan.info>) is a high level advocacy initiative for open data in Agriculture and Nutrition. CIARD also works closely with GODAN and shares its partners and members.





Thank You

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