



Agri Digitisation CAN FACILITATE STEADY PROGRESS

The current pandemic has shown that there is no going back to agriculture as usual. Even the usual will need serious technological intervention. According to FAO, agriculture is expected to be a trillion-dollar market by 2030. While climate change, sustainability, yield improvement and income distribution and other old challenges remain, we are now confronted with uncertainties in global trade, fragmented supply chains, doubts about safety and origin of food and more.

Digitally enabled agriculture could revolutionize how grass-root communities access real time actionable, accurate agricultural information and thereby improve their livelihoods. Certain developing countries have been fortunate to get support from the United Nations International Fund for Agriculture Development. Remote sensors have been deployed to help farmers optimize water and fertiliser levels for their crops, and drones are being used to identify plants in poor health so that remedial action can be taken.

Critical innovations in digital data-driven agriculture

Such critical innovations in digital data driven agriculture can aid farmers increase their yields and incomes by adopting locally suited seeds and



fertilisers, protecting crops from diseases and pests (such as fall armyworm or locusts), adapting to climate change, selling at the best possible price, and accessing financial services.

When all of these aforesaid

applications can be made available to farmers with training and initial handholding and support, the potential to expand farmers' opportunities and reduce their risks is humongous.

Significant yet slower growth was observed in digitalisation for agriculture (D4Ag) in the last decade. In 2019, both the European Union-African Union Task Force Rural Africa Report (TFRA) and the Communiqué from the Global Forum for Food and Agriculture (GFFA) highlighted the power of digitalisation in transforming agriculture. But technology remains distant for small landholders in parts of Africa and other arid regions in the world.

Digitization has the potential to transform the agricultural sector in developing countries. This requires further innovation and strong partnerships between governments, businesses, and farmers, as well as a regulatory environment to ensure that technology remains affordable and accessible.



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Challenges remain

The challenges are not confined to developing economies only. Developing nations are concerned about food safety as well as ethical and sustainability footprint of the food they consume. Food systems are no longer compartmentalised. As the lockdown has shown, disruptions in any part of the world can affect food availability and consumption in other parts. How do we keep this globally integrated food system sustainable, safe from contamination and disruption is a question that coming generations will need to answer.

The time has arrived to exploit all modern tools available by bringing information technology and agricultural science together for improved economic and environmentally sustainable crop production. Solutions that combine agri-tech with food-tech and logi-tech and integrate or the complete the value chain is what the future needs.

We at SourceTrace, are committed to resolving a two pronged problem: make agriculture more sustainable and bring transparency and trust into food consumption, impacting food safety. We do this by providing a solution that works on both the ends of the food value chain – production and consumption. We provide businesses with digital tools to have a better view of and control over their operations – from identifying farms and farmers to conducting trainings and facilitating certifications to market linkage to providing complete traceability of the produce from the farm to retail.

Post-Covid, the world needs to massively upgrade basic conditions of digital infrastructure that encompasses IT infrastructure and physical networks at grassroots level. Digital literacy among rural communities are other critical factors to consider. Institutional support, policies and national programs that enable digital agriculture would be the foundation stones towards success.

Technology platforms should empower all stakeholders

Global companies that are tech-enablers for this transformation are ensuring increasing their bandwidth and reaching to rural population and farmers. The pace of reducing the digital skill gap between urban and rural, increasing adoption of simple technologies and ICT tools, and most importantly, promoting digital and innovation culture worldwide needs to be fastened. For the gap to

close, all stakeholders need to come together. There is a need to connect the most backward farming communities and the most advanced consumers through technology platforms that empower both ends of the spectrum.

In the coming times, farm area will shrink due to climatic conditions. Global supply chain networks will be affected by geo-political changes. The cost of production will rise as we battle erratic weather, locusts and diseases. In the next couple of years, the pandemic will cause the global economy to contract, making more and more people dependent on the state for food.

The good news in all this is that technologies are already available to make farming in adverse conditions rewarding; to reduce food loss and wastage at every step of the value chain and to do all this at a minimal cost to the planet. Here is what we need to do on an urgent basis:

1. Scaling up innovation - move from proof of concept to large scale implementation in a short period
2. From competition to collaboration – be it technology companies or legacy ones, upgrading the system will need all stakeholders to join hands
3. Future readiness fund – governments, agri-businesses and multi-lateral bodies need to increase funding of targeted interventions that aim to make agriculture disaster proof
4. Linking agri and food – while agri has been slow to change, food systems are evolving faster. It's time to link both so that we see them as one ecosystem that can be impacted by digital innovation similarly.
5. Cross-sectoral knowledge sharing – the agencies of innovation are currently fragmented. Research organisations, government institutions and corporations need to evolve delivery methods that increase farmer's access to innovation at the earliest.
6. Global innovation, local application – it is time that farmers, whether in developed or in developing economies, have the same access and ease of doing business.

In each of these steps, digital technologies can make transformational impact at the fastest pace. Delivering on these promises shall require an all hands on deck approach.



Despite his busy schedule, Dr. Venkat loves to try his hand in cooking up traditional recipes. He believes that it works wonders to relieve stress. All members of his family are animal lovers and they have many pets – a dog, two cats, one bunny and 5 chickens, these beautiful animals are the common thread that they all thoroughly cherish