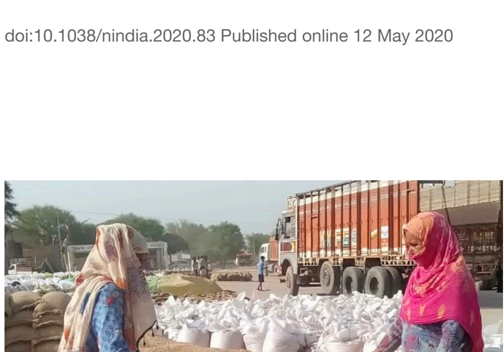
COMMENTARY

Lessons from a pandemic to repurpose India's agricultural policy

As the coronavirus crisis triggers a large scale exodus of migrant agricultural workers from India's food basket, it's time the country diversified beyond rice, wheat & sugar, write Arabinda Padhee* and Prabhu Pingali.**

59 SHARES

doi:10.1038/nindia.2020.83 Published online 12 May 2020


Women winnowing wheat in a Punjab village.
© A V Jakhar

Television footages of hundreds of migrant labourers walking for thousands of kilometres amidst India's country-wide lockdown shook the collective conscience of a nation this April. In the absence of livelihoods, shelters and square meals, these labourers desperately wanting to get back to their home states portrayed the vulnerability of India's massive unorganised agricultural workforce.

Agriculture, food and nutrition have come into sharp focus as a fallout of the COVID-19 crisis in India. Though the pandemic may not have caused serious disruption to the food system, thanks to good harvests in the previous crop seasons and sufficient buffers of rice and wheat, this is as good a time as any to reboot the country's agricultural policy, already facing the traditional twin challenges of climate change and malnutrition.

India's nine-week-long lockdown has raised serious concerns about the reduced access to nutritious food by those living in the fringes. Agricultural operations have remained out of the purview of the lockdown restrictions,which started on 25 March 2020. A couple of days into the lockdown, India declared a slew of welfare measures to protect vulnerable people, including smallholder farmers, agricultural labourers and migrant workers. However, to make food accessible and affordable to the poor, the government will need to step up its game many folds.

In the last couple of decades, climate change – extreme weather events, loss of biodiversity, diminishing natural resources, land degradation and desertification – has impacted the agriculture sector profoundly. Add to that the burden of malnutrition. These challenges have now been exacerbated by the uncertainties around how the COVID-19 pandemic will finally play out.

Tweaking policy and investments

To transform the food systems in India following the COVID-19 pandemic, the government will urgently need to repurpose existing agricultural policies.

India's policy regimes like the Minimum Support Price (MSP) and the Public Distribution Systems (PDS), coupled with subsidies on irrigation, power, and farm inputs, are skewed in favour of staple crops like rice and wheat. Even though climate-resilient and nutritious cereals like sorghum and millets get some support pricing, this seems ineffective as the policy is biased in favour of the "big two" staples.

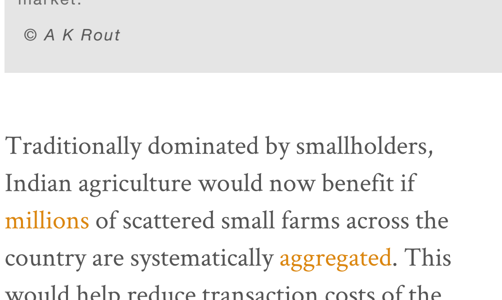
In the past, policy watchers have suggested crop diversification to correct such legacy incentives. But how do you convince farmers to switch to a new production system without the promise of a stable income, however environmentally sustainable or nutrition-laden the proposed new regime may be? Farmers will make the transition only with suitable financial incentives, a strong value chain and new consumer behaviour. COVID-19 may have opened up an opportunity to effect these changes as the country emerges out history's biggest lockdown.

In fact, before the pandemic, India had a solid case for increasing investments in the animal husbandry sector, given the rising domestic demand for meat, dairy products and eggs.

In these uncertain times, it makes double the sense for smallholder farmers, landless poor and jobless agricultural labourers who have found their way back home to rear small ruminants, backyard poultry, and aquaculture for additional income.

The reverse migration of labourers from states like Haryana and Punjab during the current COVID pandemic offers a unique opportunity for these states to undo the historical wrong of supporting unsustainable, water- and labour-intensive cropping patterns. The good news amidst the crisis is that these states have started promoting non-paddy crops with lesser water footprints like maize and cotton for the forthcoming rainy season. This should also help bypass experienced labour-intensive farm operations such as transplanting paddy.

From field to plate – what should change


Farmers in Odisha readying paddy yields for the market.
© A K Rout

Traditionally dominated by smallholders, Indian agriculture would now benefit if millions of scattered small farms across the country are systematically aggregated. This would help reduce transaction costs of the farms for accessing the value chains and make it easier for small farmers to access inputs, technology, and the market.

Post-pandemic, the demand for high-value agricultural products such as fruits, vegetables, and dairy, is expected to increase. The focus of production, therefore, should ideally cater to this growing need of a health-conscious population. It is a good time to bring primary processing facilities closer to the farm gates and help producers gather market intelligence and manage the value chain better with digital agriculture tools.

Government policies to incentivise technology startups and the private sector will also prove rewarding. Development of agri-logistics to strengthen value chains should be accorded priority in the policy agenda.

During the lockdown, supply chains of agricultural commodities, particularly that of perishables, were plagued by some inefficiencies such as poor access to marketing channels, inadequate transportation, improper storage, handling and processing, post-harvest losses and information asymmetry.

One way to overcome these barriers could be the use of smart technologies – artificial intelligence and block chain – alongside incentivising the logistical role played by e-commerce and delivery companies.

Smallholder farmers with a good market appetite will need some hand holding. India should now begin procuring cereals, pulses, millets, and other nutritious foods for state-run distribution programmes like the Integrated Child Development Services (ICDS) and the Mid Day Meal (MDM) to meet national nutritional outcomes and simultaneously enhance livelihood opportunities for the rural people involved in the agriculture sector.

Modifying consumer behaviour

If the pandemic is teaching the world one important lesson in nutrition, it is to boost one's immunity and maintain good health to better fight the viral attack. Extrapolating that to inform consumer behaviour will be an important policy offshoot.

Following the novel coronavirus pandemic, consumers across the spectrum are expected to adopt diets that come from healthier and nutritious food chains to boost their immune systems. This would be an opportunity for India to push for consumption of locally available nutritious foods, consumer education and nutrition literacy.

There is increasing urban demand for products low in salt, sugar, sodium, or saturated fat. To create consumer interest in a food system with low health risks, India must undertake massive awareness campaigns in rural and underserved populations. While such campaigns are necessary, several factors, like taste, affordability, and convenience may influence the outcomes.

Government programs like PDS, MDM, and ICDS are the best possible delivery channels to leverage healthier and nutritious food products in India. Fortification of food materials has also been advocated in the past, though significant nutritional outcomes are yet to be seen.

Consumer behaviour and nutrition choices are intrinsically linked to decisions that women take as mothers, cooks, caretakers and farmers in Indian households, as has been evident even during the pandemic. Women's ownership of agricultural lands or houses is also critical in the decisions they get to make within households. Education of women is positively correlated with reduced prevalence of anaemia and malnutrition, and so must be included in policy-level strategies. Therefore, besides empowering women involved in agriculture with appropriate policy interventions, state land policies must address these sensitive dimensions for better nutritional outcomes.

Funding for nutrition-sensitive agriculture

The COVID-19 pandemic's health fallout would expectedly drive major public investments towards the health infrastructure and related resources. The second biggest challenge would be addressing issues of hunger and nutrition for a country of 1.3 billion, especially the poor and underprivileged. Not prioritising allocations to research on nutrition-sensitive agriculture in these times would be an error. The dwindling resource envelope should not miss out the under-invested agriculture research and innovation ecosystem, as that may irreversibly damage the sector.

Expanding localised production of diverse and bio-fortified crops should also be a priority or the agricultural extension system. Moreover, investigations must continue to assess the impact of climate change on the nutritional content of food crops.

In the post-COVID scenario, a key governance approach should be to remove the silos in public delivery system by bringing relevant government bodies together.

India's future food system needs to be rewired to make room for sustainable agricultural policies that are resilient to the 'new normal' – the triple whammy of climate change, malnutrition and a pandemic.

*(*Arabinda Padhee is Country Director- India at the International Crops Research Institute for the Semi-arid Tropics (ICRISAT) based at New Delhi, and **Prabhu Pingali is the Director, Tata-Cornell Institute for Agriculture and Nutrition (TCI) at Cornell University, USA.)*

[Nature India's latest coverage on the novel coronavirus and COVID-19 pandemic here. More updates on the global crisis here.]

Related stories and links

How India must prepare for a second wave of COVID-19
1 May 2020

Corona-free: Pandemic-proof packaging of the future
30 April 2020

Massive coronavirus sequencing efforts urgently need patient data
29 April 2020

Model finds 'middle ground' for India's lockdown exit
27 April 2020

Produce more coarse grains to meet pandemic nutrition challenge
15 April 2020

Most recent

Silk-based scaffolds for screening anticancer drugs
in Chemistry

Rainfall over the wettest place on Earth decreasing
in Earth & environment

Secrets of Rhea, the icy moon of Saturn, unveiled
in Space & astronomy

Stay connected:

Sign-up to receive our e-alert update every two weeks to keep up with everything new on the portal.

Sign up for e-alerts

Nature India Podcast

Episode 3: What will it take to make currency notes hard to counterfeit

Nature India
Episode 3: What will it...
SOUNDCLOUD
Play on SoundCloud
Listen in browser
Cookie policy

More podcasts

Genome Medicine
Learn how to submit your research
BMC

Sign-up to receive our e-alert update every two weeks to keep up with everything new on the portal.

Sign up for e-alerts

For more information regarding your personal data read our Privacy Policy and Terms of Use.

nature india

Home | Archives | Our picks | Blog | Advertise with us | About

Nature India EISSN: 1755-3180
Nature is part of Springer Nature. © 2021 Springer Nature Limited. All rights reserved.