Leveraging the Nutritional Contributions of Agriculture
A new community of practice is emerging: one that is concerned about understanding agriculture linkages with nutrition, health and livelihoods.
Another community is concerned about the rising risks from climate variability and associated risks: from climate change adaptation that features an understanding of disasters risk reduction.
It’s now understood that agricultural productivity alone does not translate into less malnourished people... (India has large buffer stocks of food for the past three decades but is home to the largest number of malnourished) children in the world.
Increasing specialization through monocropping has been associated with risks especially with changing climates (variability and extreme weather).
Years of monocropping have destroyed soil biodiversity and more importantly, soil nutrient status. Hence, the focus now is on micro nutrient deficiencies. These are now the major critical limiting factors to productivity.
Depleted soils also produce nutritionally poor crops. (UK researchers have led research efforts on this).
Commercial agriculture has relied too much on chemicals affecting health adversely. Chemical residues are a double burden on malnourished children.
With climate change increasing pesticide use is expected as insect problems worsen. Stored food (corn, peanuts, etc.) are expected to have harmful aflatoxin levels.
DIVERSIFICATION and INTENSIFICATION are two concepts associated with being able to deliver on climate change adaptation goals, livelihood resilience and better nutritional outcomes.
DIVERSIFICATION AND INTENSIFICATION is needed not only to produce the food needed for future population (growth)... But also to reduce market and climate risks while delivering on food security, social inclusiveness, nutrition goals, reduces input costs and produces meat free of chemical additives.
These concepts are easily featured in small holder agriculture programs delivering on systems that feature animals, crops, trees even as markets animals, are also increasingly recognized.
To support nutrition contributions every small holder should produce 4 categories of crops:
1. Cereal grains, tubers and roots
2. Nuts and legumes
3. Animal sourced food (eggs and fresh meat from small animals)
4. Fruits from multi storied mini orchards..this can help ensure dietary diversity and enhances income from sale in local markets.
ALTERNATIVE FEED MANAGEMENT SYSTEMS that include corn, grain, legume, oil cake formulations (native pig & chicken production) reduce cost while delivering additive free meat.
A neglect of homestead or family farms disempowers women and could marginalize their roles. Women are the cornerstone in the nutrition-agriculture pathway.
“Empowering women through targeted agriculture interventions can have a strong positive effect on child malnutrition and household food security.”

Such income controlled by women has greater positive effect on child nutrition. With increased income women tend to invest in health education and food for the family.

https://openknowledge.worldbank.org/handle/10986/13571 License: CC BY 3.0 IGO."
Differentiation of strategies delivers on the needs of groups within different resource systems (homestead, farm and commercial plantation).

One size does not fit all. Co-existence is possible.
For commercial tree based systems featuring MULTI STORY SYSTEMS, MULTIPLE CROPPING. The TOTAL output matters not the individual crop productivity levels.
There is a new recognition of the value agro-biodiversity conservation in context of climate change and also because of their unique nutritional contributions (such as iron, calcium, protein, low glycemic index and fibre content)
Both nutrition sensitive (such as those listed above) and nutrition specific interventions that address the underlying causes of malnutrition are needed.
School feeding programs linked with gardens, day care programs and activities that support better health and nutrition of the pregnant and elderly in communities are needed.
Activities in the schools and at the community level must feature a better understanding of the importance of nutrition health and agriculture linkages.