

Is modern agriculture key for economic development?

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Defining a modernized agriculture?

- The evolving approach to agricultural innovations and farming practices that help farmers increase productivity, and efficiency without diminishing available water and soil and energy resources
- Thus sustainability is at the core of a modernized agriculture in my view
- Changing farming techniques to produce more sustainably

Defining economic development?

- ◉ Development is more than growth or changing incomes
- ◉ It's multi-dimensional:
 - ◉ Health, life expectancy, better nutrition,
 - ◉ Access and acting out on opportunities as they arise
 - ◉ Literacy, limited poverty, access to sanitation, low infant mortality
- ◉ It's the positive balance following the interplay of economic forces and socio-economic outcomes

What is it we need to solve?

- ◉ Bringing about economic development in its broadest sense?
- ◉ Accelerate the production of food with sustainable use of local soils, and constrained water sources at a reasonable margin to farmers?
- ◉ Production of surplus for potential "exports" (local market for crops being developed)?
- ◉ Making farmers production cycles contrarian to rainfall and pest cycles with better technologies?
- ◉ Enabling farmers to deal with predator control using technology
- ◉ Further reduce aggregation and storage cost for farmers?
- ◉ Household level food security during stress events?

Where is our agriculture in 2020?

- Agriculture remains highly volatile by nature and has become relatively less important in GDP
 - Between 1980 - 2020 (growth was negative for 21/40 years for livestock) For crops & forestry it was negative for 11/40.
 - It's relative share in measured GDP fell from 7% in 80's to below 4% in 2020
- However, in absolute terms it is still a N\$7 billion industry and there is no shortage of new entrants!!
- There is scope for further growth through the right risk mitigation and diversification.
- Covid-19 pandemic has shown that when the "trade music" stops; ideally there is need for some level of domestic self-sufficiency

Key challenges enroute to modernisation

- Agri-census of 2013/14 showed the following major investment shortcomings at farm enterprise level:
 - 2.6% of farms used a combined harvester
 - 27% used a tractor in those preceding 12 months
 - Private ownerships of capital intensive machinery is low
 - 15% of farms shared a wheelbarrow!!
 - 17% shared a hoe
 - 29.6% shared a planter
 - only 55% of farms used a vaccination gun in the preceding 12 months
 - 18% of farms any type of loading ramp for livestock
 - 61% of loans were for livestock acquisition

The way forward (some quick wins)

- Need to reduce earnings volatility in the sector
 - Support investment in solar pivots, drip irrigation to enable out of rainy season production
 - We need to encourage mega-farmers to exploit scale
- Accelerate mechanization where it makes sense (AfDB facility mentioned in Mid-term Budget)
- Overgrazing is a big problem. Agri-census 2013/14 reports that approx 40% of soil erosion caused by overgrazing
- Extension outreach is highly constrained and is critical for sustainability
- Getting the STUD industry to respond to commercial production needs

- Yes modern agriculture is key for economic development because of the backward and forward linkages that are pervasive in the Agri value chain
- But we are not there yet on the basis of anecdotal evidence that shows current low investment in mechanisation and productivity enhancing equipment (only 24% of farmers used scales in 2014)