Rural research & development in Vietnam

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Country profile

• population: 90.7 million, 69% rural
• life expectancy 73, 77 years (men, women)
• agricultural labour: 48%
• land area: 33 million hectares
  75% non-urban (ag/forest/fish)
  30% agricultural land
  12% rice paddy land
• GDP growth: 6%

* rice, coffee, pepper, rubber, cashew, fish, cassava

(IPSARD 2016)
Good news for agriculture

• over $1 billion in trade in rice, coffee, pepper, rubber, cashew, fish, cassava

• ranked in top 5 of global exporters in each sector

(IPSARD 2016)
Agricultural performance

**Rice**

**Aquaculture**

**Coffee**

(IPSARD 2016)
Good news for the country

High
GDP growth

High
stability

Poverty reduction

(World Bank & MPIV 2016)
Success factors?

• growing **global** demand for agricultural raw materials and both staple and higher value foods
• diverse **agro-ecological conditions**, tropical to temperate, varied soil types
• good **proximity to markets** in rapidly growing middle income countries (e.g. Japan, Singapore, Malaysia)
• improved **domestic environment** for business and investment
• entry into **trade agreements**, e.g. WTO and TPP
• …and large international aid inputs
UNE links with Vietnam – agriculture

Plant production
- rice, vegetables (various)
- forest management (north, centre)
- coffee, tea-tree, med. plant cultivation

Soil science
- improving sandy soils (central coast)
- biochar in rice soils, LCA (north)
- pollution remediation, adaptation (south)

Animal production, aquaculture
- beef, dairy, poultry, pigs (various)
- fin fish, shrimps, shellfish, other taxa
UNE links with Vietnam – environment

Environmental science
– climate change impacts on mangroves
– waste management, utilisation, energy
– soil and water quality monitoring and remediation
– recording and maintaining biodiversity
– land use planning, GIS/RS

Policy and governance
– forest management and benefit sharing for ecosystem services (north, centre)
– weed risk assessment & quarantine (north)
UNE links with Vietnam – agribusiness

Supply chain analysis
– demand/supply for beef market (HCMC)
– value chain for essential oil (central coast)

Industry development
– high-value crops/products (north, centre)
– extension adoption of agroforestry (north, centre)
– alternative income generation, e.g. tourism (north, centre)
Case study 1: Mekong Delta
Mekong Delta: cropping issues

- Pests & diseases
- Soil fertility
- Water
- System design
- GHG emissions
Mekong Delta: polycultures
Mekong Delta: floriculture
Mekong Delta: integrated livestock
Case study 2: Central coast

17th parallel

Rice

Veges

Onions

Cassava

Peanuts
Central coast: agroforestry

- Timber, fruit, vege, herbs
- Seedlings
- Poultry
- Crickets, NTFP
Central coast: medicinal plants

Agarwood

Cajuput (tea tree)
Central coast: natural resources

Local knowledge

Invasive species

History

Landscapes, ethnic minorities
Central coast: coastal resources

Lowlands

Lagoons

Estuary

River mouth

Sea
Case study 3: Northern region

Hydro-power

Rice

Corn
Northern region: crops

- Tea, rice
- Taro, timber, tea, rice
- Tea
- Cassava, timber, stock
- Veges, herbs
- Wood by-products
Northern region: integrated livestock

Fish

Pigs

Goats
Northern region: households & livelihoods
Challenges for Vietnam – biophysical

• yields
  – high for rice and coffee
  – pests & diseases problems (all crops)

• coast is vulnerable to climate change
  – Mekong Delta: large, key economic zone
  – long coastline: also important economically, socially

• industry development, e.g. aquaculture, beef, dairy

• quality: mostly low quality + poor QA throughout supply chain

(IPSARD 2016)
Challenges for Vietnam – prod’n systems

- Food safety: soil contamination, unsafe practices, lax regulation
- Resource degradation: water, soil, biodiversity, urbanisation

(IPSARD 2016, World Bank & MPIV 2016)
Challenges – socio-economic

• migration: urban drift, southern drift … 6.6% in Hanoi, >30% Greater HCMC
• labour: cost, availability, productivity, urbanised, ageing
• food safety, certification systems, e.g. VietGAP
• ethnic and gender inequality
• low quality, no QA, no branding → low profitability
• investment, capital & infrastructure (F&V, meat)
• competition from neighbouring countries
Challenges for Vietnam - governance

Financial system? World Bank & MPIV (2016) report recommended,
1. merit-based bureaucracy
2. market-based economic policy-making
3. stronger state accountability, vested interests

R&D and Higher Ed? signatures and silos
• moderate human capacity, but limited English
• limited facilities and equipment
• easy networking within a ‘silo’
Constraints on RD&E people

- lack of autonomy and career incentives
- no extra financial support for staff working with international organizations (Dang Kim Son, Director, Inst for Policy & Strategy of Ag & Rural Dvlpmt)
- experienced scientists with insufficient foreign language skills found it hard to work with foreign partners, while junior scientists with the requisite abilities lacked experience (Vu Van Liet, Hanoi Ag Uni)

Need more time, money, English, support, knowledge, ...
Recent ACIAR activities in Vietnam

• ~$4.5 million spent in Vietnam

Previous priorities
– climate change resilient rice-based farms in Mekong Delta
– profitable and sustainable farming in south-central coast
– smallholder market engagement in north-western highlands
– high-value aquaculture
– higher-value plantation forestry products

climate-related impact and adaptation policy

New priorities
– climate change, high-value products, empowering women, private sector engagement
Other recent activities

• numerous universities, govt dept linkages, e.g. UNE, UQ, CSU, UTas, UAdel, Murdoch, etc.
• interest in UG and PG courses
• RUN trip: VN-AU cooperation, latest developments
• Austrade: Showcase, trade barriers, industry engagement

• other support: Mỹ Thuận Bridge, Mekong Rvr (2000)
• also: Japan, Germany, Israel, etc.