MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT VIETNAM ACADEMY OF AGRICULTURAL SCIENCES



REDUCTION OF AGRICULTURAL POST-HAVERST LOSS IN VIETNAM AND PPP PERSPECTIVE

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Agriculture's contribution in 2017 gross domestic product (GDP)



Share of Agriculture (including forestry and fishery) in GDP tends to decline.

National Annual Report 2017

Crop production 2017

		Growing area (million ha)		- Yield (ton/ha)	\sum_{i}	Production million tons)
Rice	7.72	(-0.026)	5.60	(-0.16)	42.84	(-0.318)
Maize	1.09	(-0.05)	4.50	(~)	5.13	(-0.115)
Cassava	0.534	(-0.036)	0.19	(~)	10.34	(-0.56)
Vegetable	0.93	(+0.029)	Va	aried	16.49	(+0.52)

Compared to 2016

MARD Annual Report 2017

Composition of agricultural export in 2017



MARD Annual Report 2017

Agricultural value chain in Vietnam: main constraints

Inputs

High cost

- Low quality inputs
- High price, volatility
- Overuse of fertilizers, plant protection chemicals
- Inefficient use of water

Low quality, low efficiency

Small scale and scattered production

Production

- Lack of linkage
- High GHG emission
- Limited application of hightech in agriculture
- Excessive use of labor
- Inefficient irrigation
- · Quality inconsistency

High transaction cost, high post-harvest loss

Post-harvest

- Multiple stage transactions
- Too many intermediary procedures
- Lack of storage warehouse
- Poor packaging and transportation
- High losses

Low technologies, low added values

Processing

- Small scale and scattered processing
- High losses
- Lack of sophisticated processing
- Lack of by-product processing

Low quality, low prices

- · Poor quality control
- Lack of market information

Export

• Absence of branding

Vietnam Food Loss: Fruits & Vegetables value chain



Fruits & Vegetable loss in Vietnam 2018
Farming to processing/distribution – Estimations from survey – OEL Consulting 2018
** FAO 2011

Vietnam Food Loss: Meat value chain



Vietnam Food Loss: Fish value chain



Total food losses in Vietnam food value chain



Rice Value Chain Adds Little Value



Post-harvest loss in rice VC is 13-14%

FRAGMENTED & UNDERDEVELOPED COLD CHAIN OF MAJOR VIETNAM AGRICULTURAL PRODUCTS IN 2015



Low application rate of cold chain for fresh food as a result of Fragmented Distribution & Undeveloped Cold Chain

Source: News, company estimates

Cold technology application in Agricultural value chain by private sector





Cold storage for fruit, vegetable 1°C to 20°C

Frozen storage for fishery, meat... - 1°C to - 40°C

- Lacking of cold storage, cold transport and logistic communication integration: only 14%
- The cost of cold storage high: 25% of production cost for aqua products

Private investment on cold agri-chain in Vietnam

- The method cold storage and frozen (adjusting the temperature and humidity) primarily, but efficiency is not high for assuring high quality of agricultural products.
- Some high-techs are testing, but very high potential to expand, but high investment costs, high energy costs.
- The private investment in cold value chain is not integrated, mostly by separated exporters.
- Some international and national cold logistic but still lacking of integrated cold chain services providers

Existing policies for promoting post-harvest and cold chain

• Policy on promoting post-harvest technology:

+ The Government Decision 68/2013 on reducing postharvest

+ The Mard Decision 1003/2014 on increasing value in processing industry and reducing food losses

- Reducing land use tax for investment in cold storage (But these policies very low effectiveness)
- PPP in post-harvest processing to reduce food loss

The policy of prioritized post-harvest investment in Vietnam



Reducing losses in agricultural production, targeting at 50% reduction by 2020 compared with the current losses (rice 5%, vegetable 12%, aquaculture 10%...)



Investment in technological innovation, increasing the proportion of in-depth processed products, ensuring food safety, competitive prices, markets requirements



Investment in advanced technology of high value added products manufacturing from agricultural waste.

Challenges for post-harvest development

- Small farm without support by cooperatives,
- Value chain management capacity still weak,
- Sustainable food system in new conception,
- Lacking of research on appropriated and low cost post-harvest technology, cold chain management in Vietnam,
- Consumer behavior on safe food changing slowly
- PPP constraint is public credit process

Necessary to encourage contract farming in Agrifood value chain



Perspective for PPP investing post harvest loss reducing in Vietnam agricultural value chain

- Vietnam agriculture oriented exportation with and modern retail for domestic market raising fast
- Need for integrated cold value chain for fresh fruits and vegetable, meat, aquaculture, fishery and processed products... for reducing food lost and export quality.
- Need for international cooperation in appropriated post-harvest technologies research
- Need a change effective financial policy for PPP to attract private investment, including FDI in post-harvest

Perspective of R&D for agricultural value chain with PPP for sustainable value chain

- Apply of High-tech in production of main agricultural products
- Agro-ecological and Organic agriculture (compost technology and certification)
- Branding local products: one commune-one product

- Value chain/cooperative
- Quality certified/ Food safety
- Apply of information technology in traceability
- Reduce Post-harvest loss



Thank you!

