

Nutrition-sensitive commercialisation of agriculture - in search of pathways

KB Global FNS

KB SI4VC

Emerging insights from an initial exploration of literature

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This presentation and purpose

This presentation is a summarised reflection of our initial literature (mostly grey literature) exploration in relation to:

- The wider topic of nutrition-sensitive commercialisation of agriculture
- Specific exploration in relation to Myanmar (and ASEAN)

The purpose of this is:

- To show a possible outline of a report that we could put together on the basis of this exploration, which can then inform:
- Further empirical research (in Myanmar) in relation to the KB research project

This presentation – subject areas (1)

1. History
2. Core concepts in food and nutrition security
3. Useful frameworks linking agriculture development pathways and nutrition
4. Areas of convergence and tension i.r.t. to [commercialisation in] agriculture development pathways and nutrition
5. Types of intervention advised for what reason/pathways (ToCs) and mechanisms
6. Assumptions/debates and evidence base

This presentation – subject areas (2)

7. Shared agendas, SDG-relation
8. Specifically relevant dimensions/dynamics in ASEAN region and in Myanmar
9. Key actors in this field in Myanmar with related key docs and ongoing projects
10. Useful Myanmar data sources that we could build on, e.g. surveys, statistics, etc.
11. Perspective on what/where social innovation dimensions/dynamics
12. General reflections/observations

History

1. History of studies/efforts on nutrition-sensitive agricultural development pathways

1. History

- 2. Concepts
- 3. Frameworks
- 4. Tensions
- 5. Pathways
- 6. Assumptions
- 7. Agendas
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- 9. Actors Myanmar
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Overall research objective

- Identify nutrition sensitive (commercial) agriculture pathways in which improved production technologies enable: more efficient use of resources in an environmentally sustainable way; increase production/yields of nutritious commodities like fruits and vegetables; contributing to stability and increased availability of nutritious foods to vulnerable population groups.
- Research question: Which alternative farming models/pathways can be applied stimulating both commercially viable agriculture and improving the production and consumption of nutritious foods by vulnerable consumers and (young) farmer households?

History of studies/efforts (1)

- Three decades of changing definitions and approaches towards Food and Nutrition security
- Graduation from focus on 'availability' to 'access'. Later 'utilisation' and 'stability' were added
- Increasing attention to 'nutrition-sensitive agriculture': integrating nutrition goals in agricultural interventions

History of studies/efforts (2)

- The contribution of agricultural development to food **availability** is recognised
 - Emphasis on production and staple grains
 - Agri. commercialisation link with nutrition has been studied since 1980's
 - However, the contribution to nutrition is ambivalent (Webb, 2013)
 - Agri. Growth is generally good for a country – but there is no evidence for a direct link to child malnutrition outcomes (Ecker et al. 2011)
- Nutrition used to be a public health arena – separate from agriculture, with different target groups

2. Core concepts in relation to the subject of nutrition-sensitive agricultural development pathways

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Core concepts and their definitions (1)

- Food security: When all people, at all times, have physical and economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for a healthy and active life (FAO, 1996)
- Nutrition security: When all people, at all times, have access to adequate food, care and feeding practices, and sanitation and health (UNICEF, 1990)
- Food and nutrition security: Food and nutrition security exists when all people at all times have physical, social and economic access to food, which is consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life (UNSCN, 2013)

Core concepts and their definitions (2)

- Nutrition-*specific* interventions/programmes: address the *immediate* determinants of foetal and (child)nutrition and development (Ruel & Alderman, Lancet 2013)
- Nutrition-*sensitive* interventions/programmes: address the *underlying* determinants of foetal and (child)nutrition and development (Ruel & Alderman, Lancet 2013)
- Nutrition-sensitive *agriculture* is a food-based approach to agricultural development that puts nutritionally rich foods, dietary diversity, and food fortification at the heart of overcoming malnutrition and micronutrient deficiencies (FAO 2014)

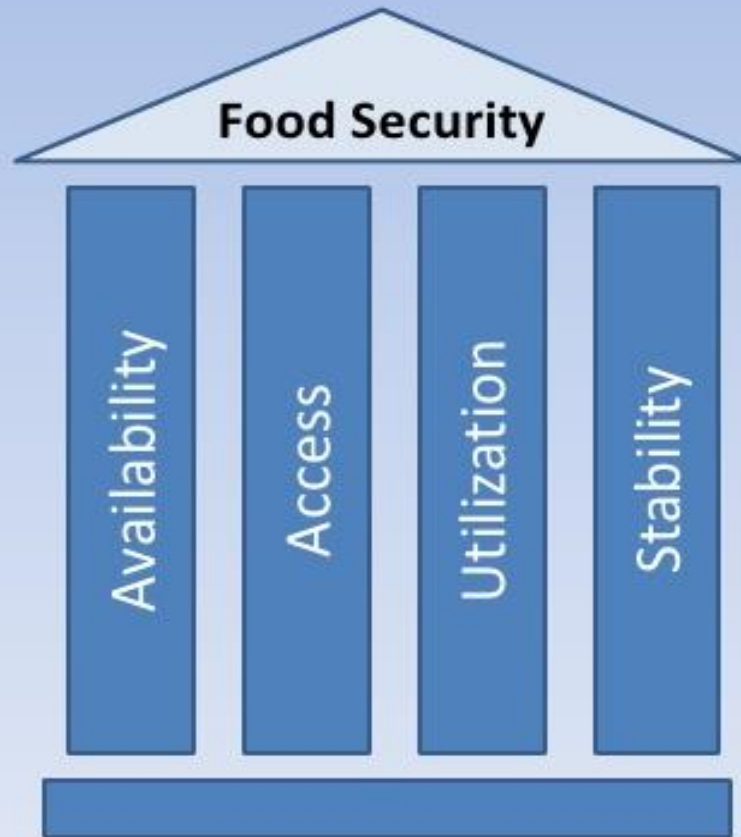
Frameworks

3. Useful frameworks for exploring the links between agriculture development pathways and nutrition

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Framework for food security

Four Pillars of Food Security



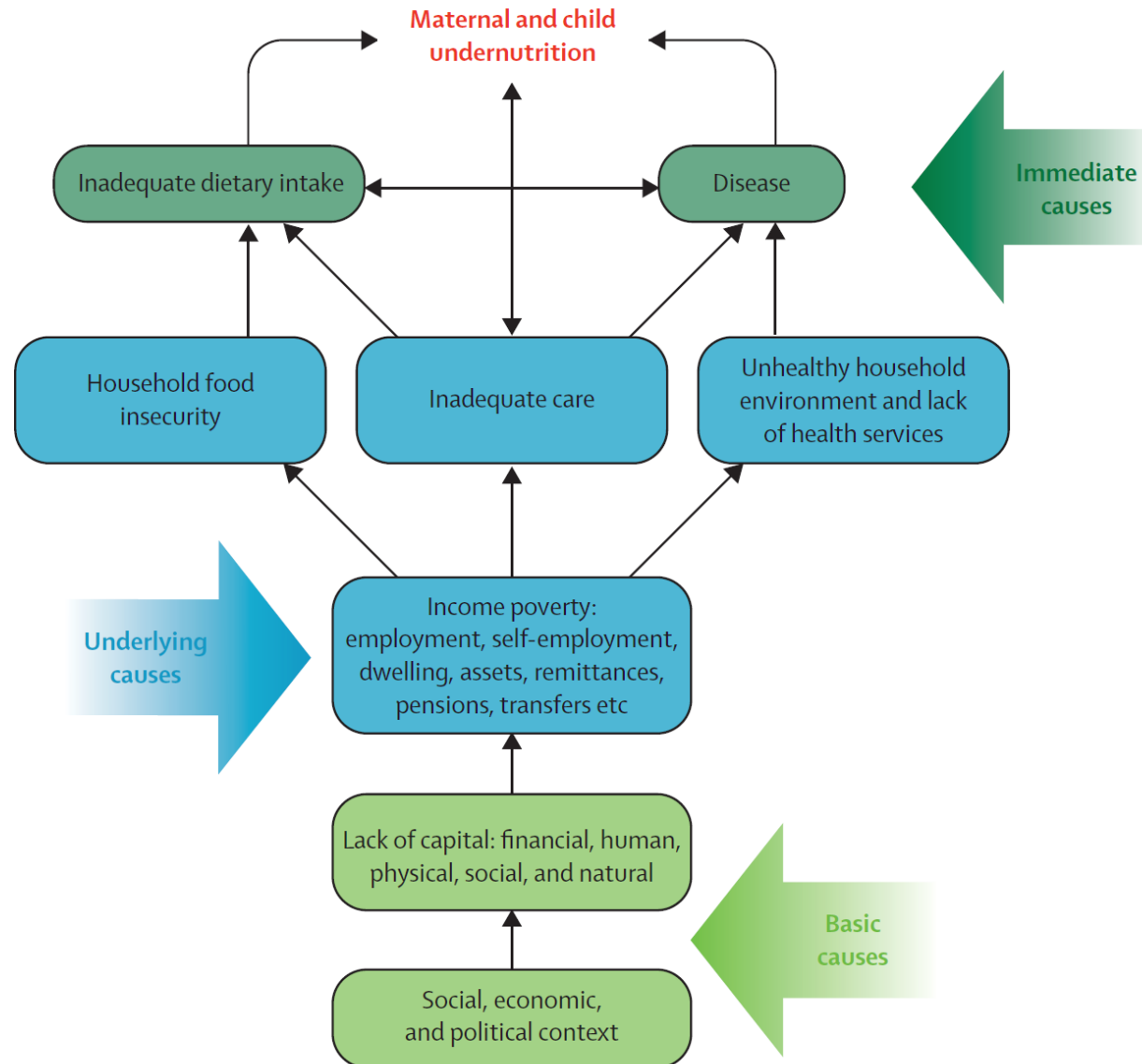
Framework for malnutrition

Short-term consequences:

Mortality, morbidity, disability

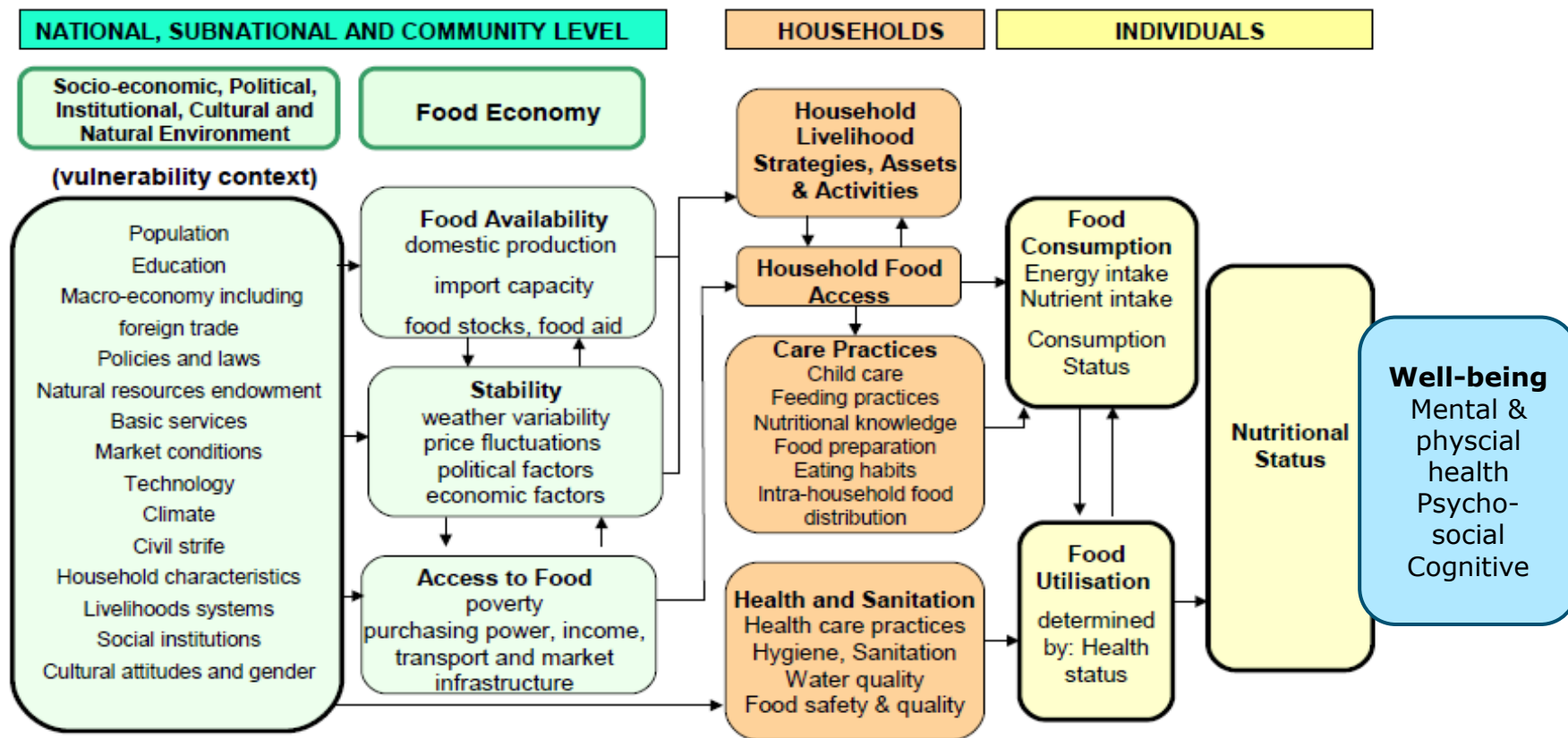
Long-term consequences:

Adult size, intellectual ability, economic productivity, reproductive performance, metabolic and cardiovascular disease



Linking food and nutrition security

FAO/FIVIMS Framework: linkages between the overall development context, the food economy, households, and individual measures of well-being



Source: FAO and FIVIMS

http://www.fivims.org/index.php?option=com_content&task=view&id=7&Itemid=1

Tensions

4. Areas of convergence and tension i.r.t.
to [commercialisation in] nutrition-sensitive
agriculture pathways

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Areas of convergence and tension (1)

- *Beneficiary targeting*: nutrition programmes target at risk groups (children < 2 yrs, PL women), agriculture development programmes target (small-scale) farmers on the basis of self-selection.
- *Intervention approaches*: nutrition-specific programmes generally use *cascade approaches* for implementation: subsequent training government staff, local trainers, community leaders, target population; Agricultural programs focus on public-private liaisons.

Areas of convergence and tension (2)

- *Commercialisation of food:* Agriculture and nutrition are both concerned with markets for food. Agricultural programs typically promote the production and sale of a small number of crops that have high market demand but may not be nutrient-rich. When nutritious crops are selected, smallholder farmers who previously produced for home consumption may switch to selling these nutritious crops.
- *Monitoring and evaluation:* Nutrition indicators - increased dietary diversity, reductions in stunting, underweight, and wasting. Indicators for agricultural programs - increases in total production, sales, and incomes. Linking such outcomes to improvements in nutrition is difficult and *highly context-specific*.

Pathways

5. Key pathways and mechanisms suggested in relation to nutrition-sensitive agricultural development pathways

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Key pathways and mechanisms (1)

7 main pathways in the literature:

- As a source of food
- As a source of income
- Non-agriculture income for food purchase
- Food prices
- Women's social status and empowerment
- Women's time
- Women's own health and nutritional status

Key pathways and mechanisms (2)

A number of key approaches linking to these pathways:

- Targeted agricultural programmes and IGAs for women (home gardens and homestead food production)
- Bio fortification
- Cross-sector education in nutrition and health in communities
- Leveraging food value chains to improve nutrition
- Stimulating agro-ecological diversity

Assumptions

6. Assumptions and debates regarding relation to the subject of nutrition-sensitive agricultural development pathways

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Assumptions/debates and evidence base (1)

- Multitude of pathways: blessing or burden?
- Evidence base still inconclusive: causal pathway in agricultural development programs to nutritional impact rarely articulated during the design process (no ToC formulated) (USAID, 2106)
- Overreliance on a model of human behavior focusing on rational decision making, taking little account of human sociality. Yet humans are innately social creatures, and the fact that we are always “thinking socially” has enormous implications for decision making and behavior, and thus for development (World Development Report 2015)
- FNS and the right to food

Assumptions/debates and evidence base (2)

Risks of agric interventions (Dury et al. 2015):

- Income increases do not equal better nutrition (choices and trade-offs)
- Mismatch in food availability and diversity
- National emphasis on a key crop can cause price drops
- Emphasis on women can be negative (time and labour effort)
- Health and environmental degradation from agriculture
- Exclude already vulnerable groups

Agendas

7. Aligning agendas for nutrition-sensitive development pathways in agriculture and the relation with SDGs

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Increased sense of urgency

- Growing number of initiatives (programmes, interventions, networks, CoPs), such as SUN (UN), Spring (USAID), and renewed interest in bilateral collaborations
- Growing number of (review) publications, in both grey and scientific literature
- Worldwide increase of triple burden of malnutrition (undernutrition, overweight and diet related NCD, hidden hunger)

SDGs as framework for alignment FNS initiatives

- While the term “nutrition” appears as a free-standing element of SDG No.2 (“End hunger, achieve food security and improved nutrition, and promote sustainable agriculture” as currently proposed), in reality nutrition is interwoven with all 17 SDGs (Webb, 2014)
- Enhancing coherence between trade policy and nutrition action (UNSCN, 2015)

8. Specifically relevant dimensions/dynamics in ASEAN region and in Myanmar in relation to the subject of nutrition-sensitive agricultural development pathways

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The challenge (source: Forum for the Future/Friesland Campina)

- By 2020 ASEAN will have a US\$3 trillion economy and a population of close to 600 million people.
- Consumer spending is expected to double to \$2.3 trillion a year, with over \$770 billion of new money coming from the nearly 100 million people joining the consuming class for the first time or moving into more affluent consumer segments.
- The region is home to four of the 20 countries with the highest levels of malnutrition (Burma, Indonesia, the Philippines, and Vietnam⁴), a rapidly growing middle class likely to demand more resource-intensive foods, such as meat and vegetable oils, and smallholder-based agriculture that is complex, inefficient and vulnerable to climate change.

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For quality of life

ASEAN/Myanmar specific issues

- UNICEF/WHO has done recent study for ASEAN on nutrition (2016), two volumes.
- ASEAN mostly good rainfall (at least not the kind of dry areas as in Africa)
- Aquaculture quite important with good potential for more (protein intake)
- Rice is very important.
- Cash crops such as rubber are taking over important parts of the landscape in SE-Asia.

Country	Major Ag Commodities Produced	World Ranking (2011)
Brunei	rice, vegetables, fruits; chickens, eggs	
Burma	rice, vegetables, beans, fruits, groundnuts, sugarcane	2- pigeon peas, beans; 3- mustard seed
Cambodia	rice, cassava, maize, vegetables, sugar cane	
Indonesia	rice, cassava (tapioca), sugar cane, palm oil, maize, coconuts, bananas, fruits, rubber	1- palm oil, cloves, cinnamon, coconuts; 2 – rubber, nutmeg; 3 – rice, coffee, cassava
Laos	rice, vegetables, sugar cane, maize, cassava, sweet potatoes	
Malaysia	palm oil, rice, chicken meat, rubber, sugar cane, coconuts	2 – palm oil; 3 - rubber
Philippines	sugarcane, rice, coconuts, bananas, maize, vegetables, fruits	2 – coconuts, pineapple; 3 - bananas
Singapore	eggs, vegetables	
Thailand	sugar cane, rice, cassava, maize, rubber, fruits	1 –rubber, pineapple; 2- eggs; 3 – palm oil
Vietnam	Rice, sugar cane, cassava vegetables, maize, pigmeat, fruits	1- cashew pepper; 2 - coffee; 3 –
Source: FAOSTAT		

Food and Diet changes from increasing household incomes

Food Demand Changes in Urbanizing Asia

- Most food is purchased
- Reduced per capita consumption of rice
- Increased consumption per capita of wheat and wheat-based products
- Increased diversity in the food groups consumed
- Rise in high proteins and energy dense diets
- Increased consumption of temperate zone products
- Rising popularity of convenience food and beverages; Westernization of diets
- More vulnerable to food price shocks

Source: Pingali, FAO 2004



Actors Myanmar

9. Key actors in the field nutrition-sensitive agricultural development pathways in Myanmar

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Relevant key actors in Myanmar

- Grow Asia partnership

The Network aims for a Myanmar 30:30 Vision to generate \$30 billion in agricultural output in Myanmar by 2030, with a particular emphasis on smallholder farmers

<http://growasia.org/country-partnerships/myanmar/partners/>

This basically provides a significant part of the overview of key actors except for a few smaller groups such as LEAP201, and, not unimportantly, SUN, Save the Children, WorldFish and the like.

- Myanmar Food Security Working Group <http://www.myanmarfswg.org/>
- The following overview of key sources gives an indication about which organizations are most active

Data Myanmar

10. Myanmar data sources that we could build on in relation to nutrition-sensitive agricultural development pathways

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Agriculture

Agriculture in Myanmar (EKN, 2015)

Myanmar: Analysis of farm production (LIFT, 2016)

Myanmar Agricultural Development Bank: Initial Assessment and Restructuring Options. (World Bank, 2014)

Country Statement of Myanmar Ministry of Agriculture and Irrigation. (Myanmar Government, 2014)

Myanmar Agriculture in Brief (part 1 and 2). (Myanmar Government, 2014)

Strategic Choices Shaping Agricultural Performance and Food Security in Myanmar. (Journal of International Affairs (2014)

Strategic Choices for the Future of Agriculture in Myanmar: A Summary Paper. (USAID (2013)

Food and nutrition security

Nutrition Country Profile Myanmar. Global Nutrition Report (2015)

A country in rapid transition: Can Myanmar achieve food security. Book chapter (2015)

Myanmar report on Food Security & Nutrition (FAO, 2013)

Nutrition at a glance (brief). (World Bank 2016)

Background Paper on Food and Nutrition Security in Myanmar (USAID, 2013)

Technical Brief on Improving Nutrition Outcomes through Food Security & Livelihoods Programmes (LEARN, 2014)

Report on Self-Assessment Workshop for the Progress of Scaling Up Nutrition Movement in Myanmar (SUN, 2014)

Hunger and Nutrition Commitment Index (Ukaid, 2014)

Myanmar Nutrition Country Fiche (EC, 2015)

Briefing Paper: Nutrition-Sensitive Agricultural Development: Case studies of Indonesia, Lao PDR, Myanmar and Timor-Leste. (University of Sydney (2014)

Myanmar. Sustain a 'nutrition-sensitive' food security intervention. (Action contre la Faim (2012?)

SUN Compendium and Report Myanmar. (SUN (2015)

A Nutrition and Food Security Assessment of the Dry Zone of Myanmar (WFP/Save the Children (2014)

National Plan of Action for Food and Nutrition (2011-2015) (FAO (2012)

Scoping study on food security and nutrition information in Myanmar. (FAO/EC (2011)

Commercialisation & entrepreneurship

Presentation on The Essential Role of Agriculture in Myanmar's Economic Transition. USAID/LIFT et al. (2016).

Bridges to impact: A new paradigm for agri-social enterprises in Cambodia and Myanmar) LEAP201 (2014)

What Holds Vegetables Farmers Back? Conflict, Governance and Markets Assessment. Making Vegetable Markets Work for Smallholders Program (Mercy Corps (2015)

Intervention approaches

Facilitator's guide for community nutrition education (WFP (2016)

Facilitator's guide for community nutrition education Save the Children (2014)

Gender

Multi-Stakeholder Roundtable on Gender and Food Security (ICCO/ Kerkinactie, (2015)

Population and Households

Integrated Household Living Conditions Survey in Myanmar (SIDA/UNICEF, 2011)

Myanmar Household Survey (LIFT, 2014)

Vegetable Consumption, Preferences and Supply Chain Myanmar (LIFT et al. (2015))

Governance

The Role of Landholding as a Determinant of Food and Nutrition Insecurity in Rural Myanmar. (World Development (2014):

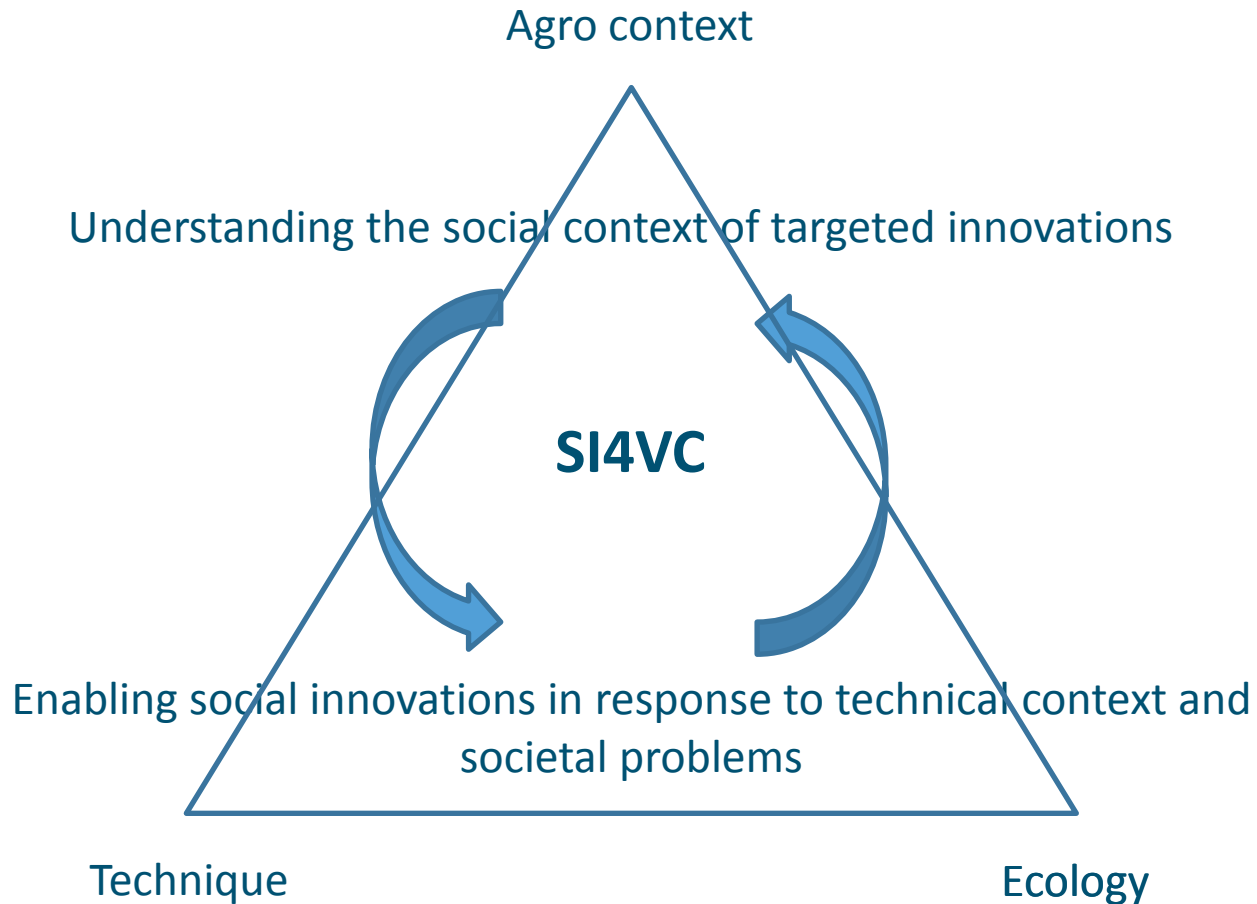
11. Relevant social innovation dimensions/ dynamics in relation to nutrition-sensitive agricultural development pathways

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KB 28 Social Innovation for Value Creation

- Definitie Sociale innovatie: nieuwe ideeën (producten, diensten of modellen) die sociale problemen adresseren en nieuwe sociale samenwerking vereisen
- Impact: kritisch bijdragen aan handelingsperspectieven voor innovatie, met kennis over de relatie tussen sociale infrastructuren en technische en economische innovatieprogramma's
- Missie: bijdragen aan het unique selling point van WUR, het kruisbestuiven van sociaal kapitaal, sociaal-economische doelen en technologische ontwikkeling in het werken aan millennium goals
- Implementatie agenda: relatie werk- en organisatievormen met maatschappelijke waardencreatie onderzoeken
- Thema's: context analysis of innovation practices; governance & participatie samenleving; resilience; inclusieve economieën, co-creatie & sociaal leren

Social Innovation for Value Creation



Why connection with social innovation?

- Understanding the potential and actual contribution of social innovation to help unlock pathways of nutrition-sensitive commercialisation of agriculture
- Developing recommendations on how to capitalise on the potential of social innovation to help unlock pathways of nutrition-sensitive commercialisation of agriculture
- Specify this in the context of Myanmar

Social innovation in practice

For the purpose of ensuring nutrition-sensitivity of commercialisation of agriculture, e.g.:

- Putting in place new legal frameworks, policies, etc.
- Including smallholders in agenda-setting, monitoring, etc.
- Supporting/strengthening the role of social entrepreneurs/enterprises
- Empowering women
- Connecting to cultural food identities
- New ways of organising nutrition-related education/awareness
- New (nutrition-sensitive) business models
- From blanket approaches to diversified approaches
- New feedback mechanisms (e.g. M&E) on nutritional status

Observations

12. General/key observations regarding studying nutrition-sensitive agricultural development pathways (in Myanmar)

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General observations

- We need to be clear about our focus. Between nutrition-sensitive agriculture (-al) development and nutrition-sensitive commercialisation of agriculture.
- We need more specific links to what is going on in private sector investments in agriculture in Myanmar (through Grow Asia and ...)
- We need to get in touch with policy development dynamics related to agricultural investments and commercialisation of agriculture in Myanmar
- We need to make explicit the underlying assumptions in our approach of nutrition sensitive (commercial) agriculture pathways

Selected sources (1)

- EKN (2015) factsheet on Agriculture in Myanmar
- FANTA (2014) Burma nutrition profile
- FAO/EC et al. (2013) Myanmar report on Food Security & Nutrition. Data cataloging.
- USAID et al. (2013) Background Paper on Food and Nutrition Security in Myanmar.
- LEARN (2014) Technical Brief on Improving Nutrition Outcomes through Food Security & Livelihoods Programmes.
- SIDA/UNICEF/UNDP (2011) Integrated Household Living Conditions Survey in Myanmar (2009-2010)

Selected sources (2)

- UKaid et al (2014) Hunger and Nutrition Commitment Index. Key data for Myanmar.
- Livelihoods and Food Security Trust Fund (LIFT) (2014) Myanmar Household Survey 2013.
- EC (2015) Myanmar Nutrition Country Fiche.
- Global Nutrition Report (2015) Nutrition Country Profile Myanmar.
- LIFT (2016) Myanmar: Analysis of farm production.
- SUN (2014) Report on Self-Assessment Workshop for the Progress of Scaling Up Nutrition Movement in Myanmar
- ICCO/Kerkinactie (2015) Multi-Stakeholder Roundtable on Gender and Food Security

Selected sources (3)

- World Bank (2014) Myanmar Agricultural Development Bank: Initial Assessment and Restructuring Options.
- World Bank (2016) Nutrition at a glance (brief).
- Myanmar Government (2014) Country Statement of Myanmar Ministry of Agriculture and Irrigation.
- Myanmar Government (2014) Myanmar Agriculture in Brief (part 1 and 2).
- LEAP201 (2014) Bridges to impact: A new paradigm for agri-social enterprises in Cambodia and Myanmar
- University of Sydney (2014) Briefing Paper: Nutrition-Sensitive Agricultural Development: Case studies of Indonesia, Lao PDR, Myanmar and Timor-Leste

Selected sources (4)

- Action contre la Faim (2012?) Myanmar. Sustain a 'nutrition-sensitive' food security intervention.
- USAID/LIFT et al. (2016). Presentation on The Essential Role of Agriculture in Myanmar's Economic Transition.
- Article in World Development (2014): The Role of Landholding as a Determinant of Food and Nutrition Insecurity in Rural Myanmar.
- Article in Journal of International Affairs (2014) Strategic Choices Shaping Agricultural Performance and Food Security in Myanmar.
- USAID (2013) Strategic Choices for the Future of Agriculture in Myanmar: A Summary Paper.

Selected sources (5)

- SUN (2015) SUN Compendium and Report Myanmar.
- LIFT et al. (2015) Vegetable Consumption, Preferences and Supply Chain Myanmar
- Mercy Corps (2015) What Holds Vegetables Farmers Back? Conflict, Governance and Markets Assessment. Making Vegetable Markets Work for Smallholders Program
- WFP/Save the Children (2014) A Nutrition and Food Security Assessment of the Dry Zone of Myanmar (2013).
- FAO (2012) National Plan of Action for Food and Nutrition (2011-2015)

Selected sources (6)

- WFP (2016) Nutrition programmes brief
- FAO/EC (2011) Scoping study on food security and nutrition information in Myanmar.
- Book chapter (2015) A country in rapid transition: Can Myanmar achieve food security
- Save the Children (2014) Facilitator's guide for community nutrition education