

# **Farmers, Consumers and Other Agents: Who are the agents of change in the face of multiple stressors including unhealthy foodstuffs and climate change and variability?**

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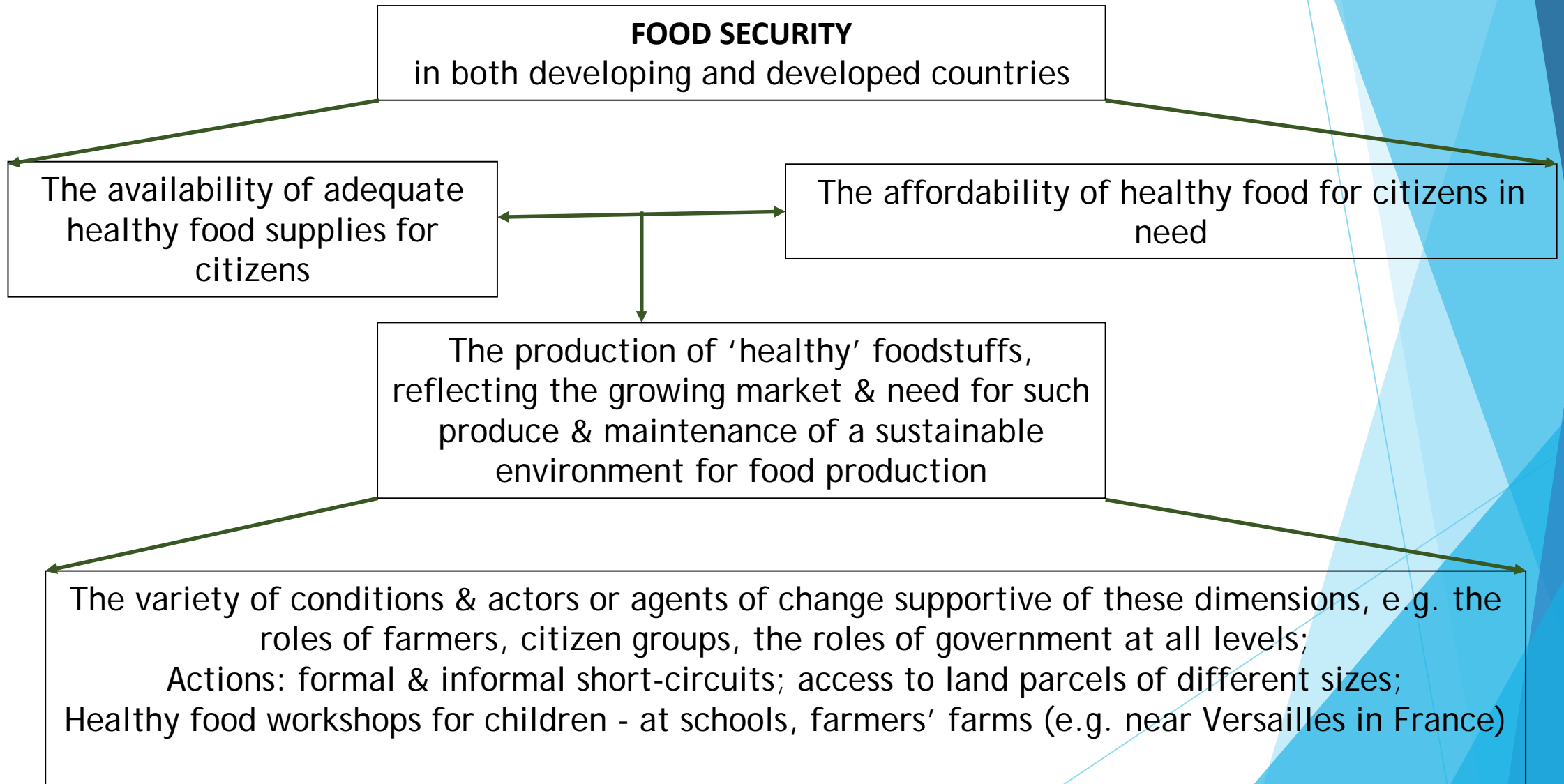
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# Structure of the Presentation

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2. Agriculture and stressors
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4. Initiatives to deal with these stressors: What actors? What results?
  - 4.A Unhealthy foodstuffs & the food market & negative impacts on the environment
  - 4.B Agricultural adaptation to Climate Change and Variability (CCV)
5. Conclusions

# 1. A Conceptual Framework



## 2. Agriculture and stressors

- ▶ Agriculture of different kinds and its farmers are continually faced by multiple different stressors. How can agriculture and its farmers cope with these stressors, improve their situation and become more sustainable?
- ▶ The production of relatively unhealthy foodstuff, the result of certain forms of agricultural development particularly productivist agriculture
- ▶ This also includes the process of food production including the use of chemicals/pesticides that destroy natural environments, possibly worsening the impacts of climate change and variability. This represents a new niche for agents of change whether they be farmers, consumers, whistleblowers, or others.

## 2. Agriculture and stressors: continued

- ▶ Climate change and variability (CCV) - increasingly recognized as impacting agriculture in many developed and developing countries.
- ▶ Climate change mitigation (e.g. BECCS (Bio-energy Carbon Capture and Storage)) - on the one hand is positive and constructive, BUT it can also be a potential factor that competes with land for agriculture and have impacts on food security. The scenarios in the latest IPCC Special Report to limit global warming below 2 degrees C involve some types of carbon dioxide removal (CDR) and BECCS.
- ▶ Other stressors:
  - ▶ Competition on the international scene including produce that can be unhealthy
  - ▶ Competition for land between farmers and others ...
  - ▶ Competition and the prices of the produce compared with the costs of production ...

# 3. Farmers as agents of change or ...

- ▶ Farmers have frequently been seen as integrating into their production systems changes advanced by other actors.
- ▶ The distinction between small scale food producers and large-scale farmers and their potential differences in how they deal with other actors both in the farming industry & in other domains
- ▶ Farmers as agents of change? And how can others become real agents of change?
- ▶ What makes other agents of change useful to farmers?
  - ▶ Agents that have farmers' confidence
  - ▶ Actors able to deal directly with farmers on their farms
  - ▶ Ability to help farmers mobilize other actors who can be useful
  - ▶ Ability to listen to farmers' preoccupations
  - ▶ Ability to mobilize other actors and encourage them to participate in co-construction processes
  - ▶ Agents of change who are fundamentally concerned with what happens to farmers and their families
  - ▶ Agents with patience to listen but not tell farmers what to do (e.g. researchers and others involved in 'action research')
  - ▶ Other characteristics?
- ▶ Farmers can also become agents of change when they implicate other actors or agents of change ...

## 4. Initiatives to deal with these stressors: What actors? What results?

### 4. A. Unhealthy foodstuffs & the food market & Producing healthy foodstuff:

A. Our comments are based on extensive research into agriculture around and in urban agglomerations in Canada, France and Belgium

- ▶ Some segments of farmers can become agents of change. E.g. in terms of sustainable agricultures producing healthy foodstuffs with many examples in agricultural territories around and within urban agglomerations - e.g. many of the projects in Food Land Belts ...
- ▶ Examples include the farm community in Senneville at the western end of Montreal Island where most farmers do not have a family history of being in farming ...
- ▶ And in Belgium around Liege where farmers in the Food Land Belt are not farmers but “Nimaculteurs” (i.e. not from the agricultural world ... just like most of the farmers in Senneville) ...
- ▶ And other people who became farmers because they really wanted to feed the populations...
- ▶ Unhealthy foodstuff: farmers working together with consumers - formally & informally to increase the production of healthy foodstuff (e.g. FLB Liège (ADB), SAM(CRB) Montreal region ... & research undertaken by some authors involving action research
- ▶ In an increasing number of territories around and in urban agglomerations, more and more farmers have become linked directly to consumers because of the farmers' healthy produced foodstuffs to the point where an increasing number of food projects, at different scales, have been developed in which both farmers and consumers are implicated (e.g. the AMAP in France)

**The Western end of the  
Island of Montréal including  
the municipality of Senneville**





# Four photos of agricultural spaces in Senneville



# SAM (Système alimentaire montréalais OR Montreal Food System). Informal discussions from 2008; & approved in 2015 by the Council of Elected Officials of Healthy Montreal



## Structure opérationnelle régionale de Montréal, métropole en santé



18 mars 2015

Le plan d'action SAM 2014-2016 est adopté officiellement. Le SAM soutiendra 22 projets régionaux qui seront réalisés par 14 organismes porteurs montréalais locaux et régionaux jusqu'en 2016.

## 4. B. Agricultural Adaptation to CCV

- ▶ Our extensive research into agricultural adaptation to CCV in Canada
- ▶ Climate Change and Variability - its reality is increasingly recognized
- ▶ Issues: more and more recognized by farmers (based on our research in Québec)
- ▶ Farmers in many agricultural territories in Québec did not trust government EXCEPT for the Agricultural Financial Corporation of Québec (AFCQ) (responsible for crop insurance programs UNLIKE any that exist elsewhere in North America). **Avoids maladaptation!**
- ▶ AFCQ asked Bryant what they could do to facilitate the research. The Corporation then provided Bryant's research teams with 30-35 years of data for their research regions on farmers' crop yields and problems which we then processed, presented to farmers and representatives of the AFCQ, as well as presenting the results of climate modelling over a long period of time. The results were presented to farmers in focus groups to discuss what forms of adaptation could be undertaken. The farmers, the AFCQ and even the researchers (following an action research approach) worked together to determine what adaptations could be undertaken.
- ▶ Also, farmers can be direct agents of change when they fully understand the implications of CCV.
- ▶ Some small groups of farmers have taken initiatives collectively to see how farmers working in climates (e.g. parts of the U.S.A.) similar to the projected climates say 30 years ahead in their own territories; these farmers then visited different territories in the U.S.A. to exchange with farmers there.
- ▶ The potential of co-construction processes of adaptation initiatives that farmers have participated in, initiated and eventually led to their implementation of adaptation strategies. These efforts can include different segments of the consumer market who also have appropriated the need to conserve different functions of the multi-functional agricultural landscape ...
- ▶ The potential possibilities of effective strategic development planning in the PDZAs of the province of Québec - both in relation to healthy foodstuffs & appropriate adaptation to CCV \$ in effect dealing with any or all of the stressors that the farming community has recognized.

## 5. CONCLUSIONS

- ▶ Farmers as agents of change
- ▶ Need to recognize that initiatives primarily start from the bottom-up
- ▶ If governments at any level are to play a role in adaptation they have to recognize the knowledge of most farmers
- ▶ Other agents or actors can play significant roles if they integrate a role of accompaniment, and develop an ability to recognize that most decisions regarding agriculture must come from farmers themselves

# Examples of pertinent references involving the authors

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