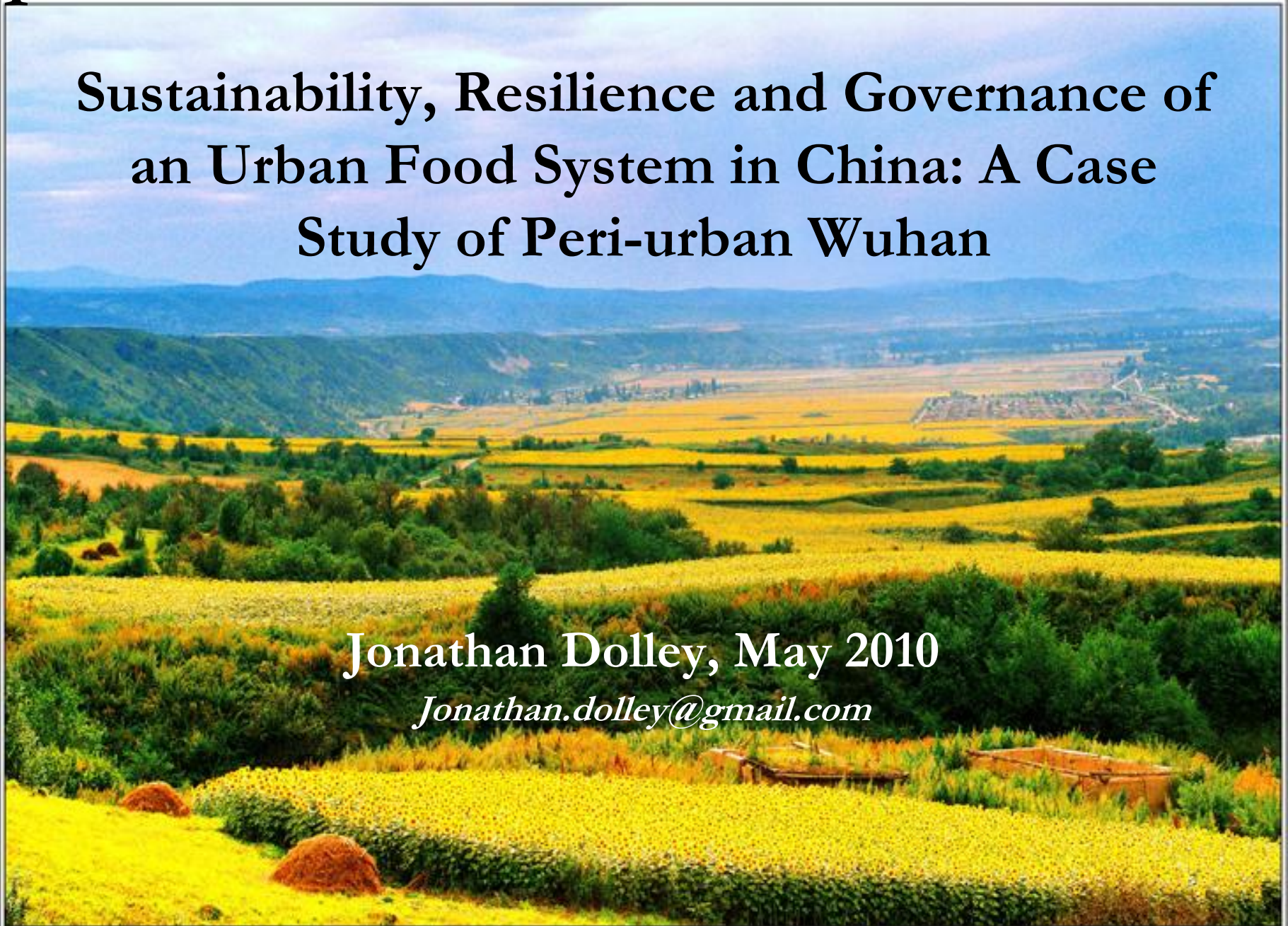


Sustainability, Resilience and Governance of an Urban Food System in China: A Case Study of Peri-urban Wuhan

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Research Topic

Urban food systems in China

Peri-urban sustainability

UPA for urban sustainability



Literature

Peri-urban sustainability

Marshall & Waldman et al. (2009), Webster (2002), Hudalah, Winarso et al. (2007), Simon (2008), McGee (2008), Tacoli (2006), Rees (2006).

Food system vulnerability

Ericksen (2008a & b), Tansey (2008), Smith (1998), Boyd, Osbahr et al (2008).

STEPS Centre sustainability & resilience

Leach (2008), Stirling and Smith (2008), Thapa, Marshall et al (2010), Thompson, Millstone et al. (2007).



Case Study Context

Research Questions

How to answer them

5

6 million urban



Context

6

3 million rural



Context

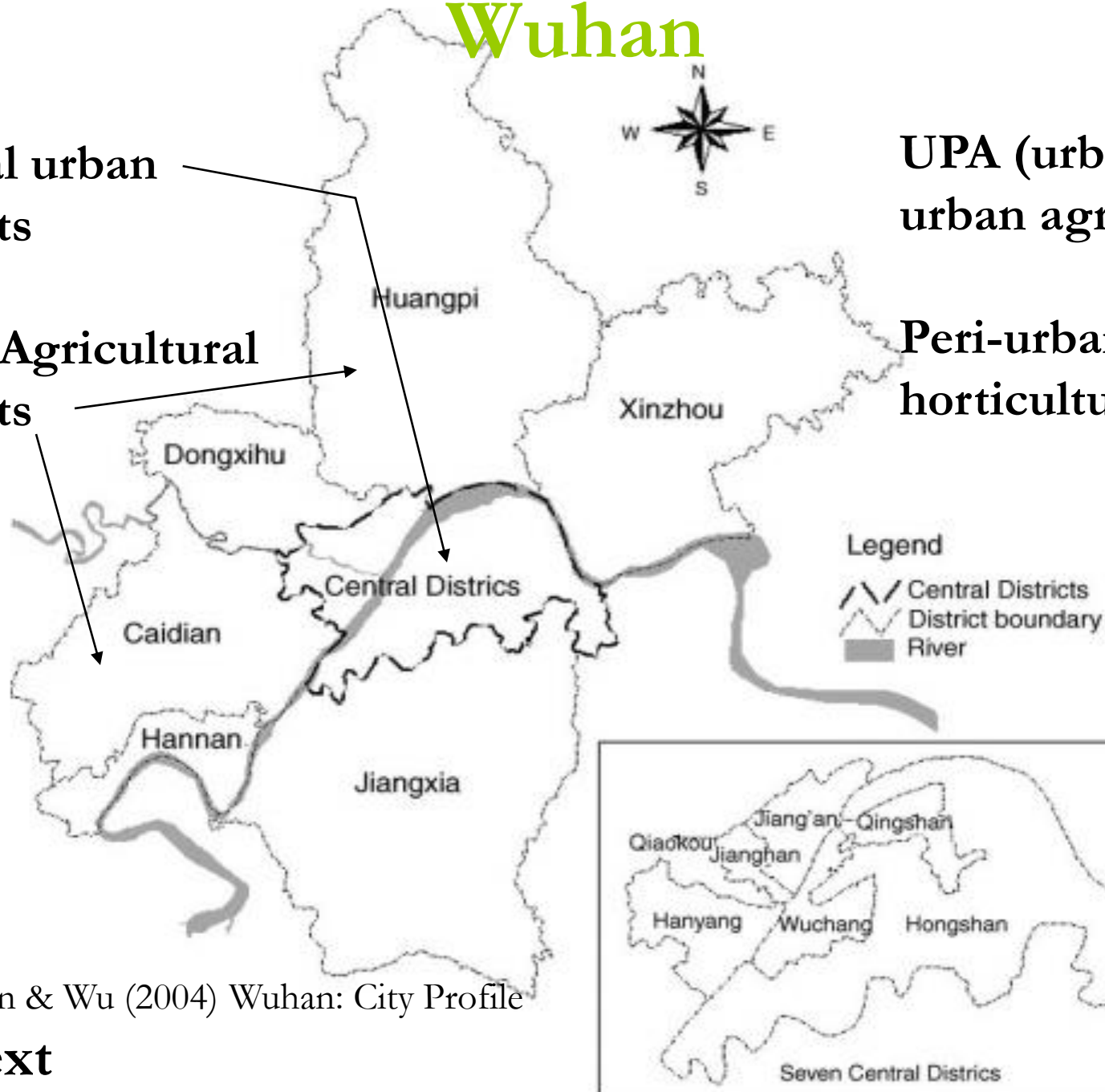
Wuhan

Central urban districts

Outer Agricultural districts

UPA (urban & peri-urban agriculture)

Peri-urban horticulture system



From Han & Wu (2004) Wuhan: City Profile

Context

Modernization of UPA in Wuhan

Developments in UPA (urban and peri-urban agriculture).

Larger scale, mechanised, monocropping of vegetable production for export and affluent urban consumption.

Rural land controlled by Village Committee.

Contracts with local farmers.

State owned land controlled by local governments.

Leased to private enterprises who employ local farmers.

9

Village Committee



Context

Hierarchy of Veg Brands

Led by local state & private enterprise
Emphasises integration & standardisation

Increasing quality, safety
and price



Conventional

Harmless

Green

Organic

Benefits of modernization

Secure incomes

Transfer of risk

Less chemicals used

Soil quality management

Costs of modernization

Farmers sell at lower prices

Less long term investment

Higher quality expensive veg, lower quality cheap
veg

System vulnerable to shocks

China-wide polical-economic changes

Decentralization and marketization



Reorganization of urban space



Urban local growth coalitions



Competition between city & district governments

How these effect the urban food system in Wuhan

Entrepreneurial governance

Affluent consumption

Commodification of food

Redistribution of risks, costs and benefits

Reflecting on Theory

Institutions to:

1. Enhance social justice and environmental integrity;
2. Adapt to changes & stresses;
3. Maintain enhanced functions.



**Resilience approach,
vulnerability etc.**

Research Questions

What are the drivers of change in peri-urban horticulture systems in China and what are the implications of these changes for food security?

Four sub-questions

1. What is the nature, extent and significance of peri-urban horticulture systems in Wuhan?
2. What are the main changes taking place within the system and how are these driven or influenced by government policy, multi-scale interactions, institutional arrangements and food system actors?
3. What are the implications of these changes for: the resilience of food availability against decreasing water availability; equity of access to affordable vegetables; and access to safe vegetables?
4. How do the various vulnerability and resilience approaches contribute to understanding and articulating peri-urban sustainability issues and what are the critical issues for their use in developing policy to promote social justice and environmental integrity in such contexts as highlighted by the empirical case study?

What's the point?

Inform Policy

Reflect on Theory

Inform methodological approaches to urban
food systems

Research Questions

How am I going to do it?

11 months Chinese language training in Beijing.

First period of 5 months fieldwork in Wuhan.

3 months analysis in Brighton.

Second period of 5 months fieldwork in Wuhan.

Interviews, Documents, GIS & Stats



Questions & Comments



Defining 'peri-urban'

Juxtaposition of urban and rural activities and institutions

Alternatives:

- place based 'urban fringe'
- process: transition from rural to urban, rural-urban interactions and flows.

Definition of a food system

Production

Processing & Packaging

Distribution & Retail

Consumption

Plus interactions with bio-geophysical and human environments.

Concept of 'urban food system'

Production

Processing & Packaging

Distribution & Retail

Consumption

Within city boundaries

Beyond city boundaries

Plus interactions with bio-geophysical and human environments.

Food Security

Food Security
Ecosystem Services
Social Welfare

Food Security:

- Availability
- Access
- Utilization

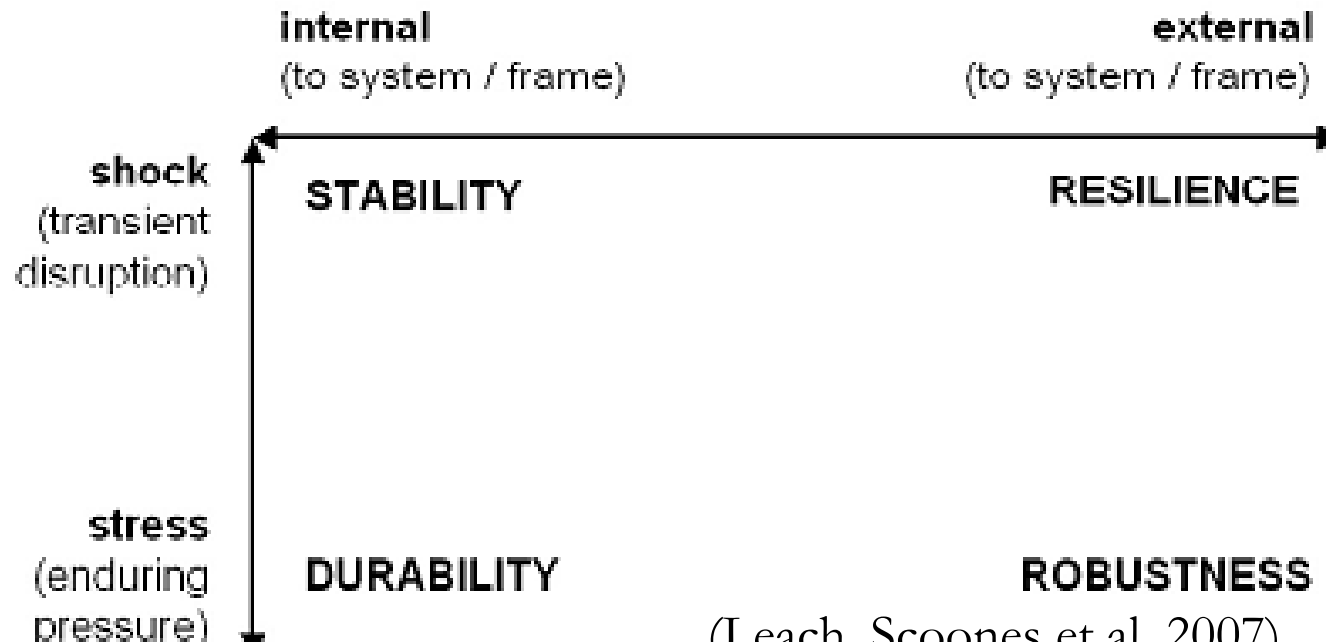
Sustainability

Normative values

Stability, Resilience, Durability, Robustness

TEMPORALITY

PROVENANCE



(Leach, Scoones et al. 2007)

Vulnerability



Resilience Approach

Identify and illustrate:

Key interactions within and between social-ecological systems.

Implications for adaptability

Multiple effects of certain changes.

Strategies for adapting to change.

Politico-economic analysis

Endowments – structures, institutions and resources which constrain and facilitate actors ability to seek certain interests.

Interaction and interdependency in pursuit of these interests prompting negotiation or exploitation (types of game: co-ordination, co-operation, conflict).

Assumes a certain level of rationality dependent upon knowledge leading to calculating behaviour of individuals to maximise payoffs.

Externalities and feedback – positive and negative effects on actors beyond the unit of analysis (distributive as well as institutional) which have feedback effects on the unit of analysis (evolution/co-evolution).