

How to Feed the Cities Land Use Conflicts and Urban Agriculture

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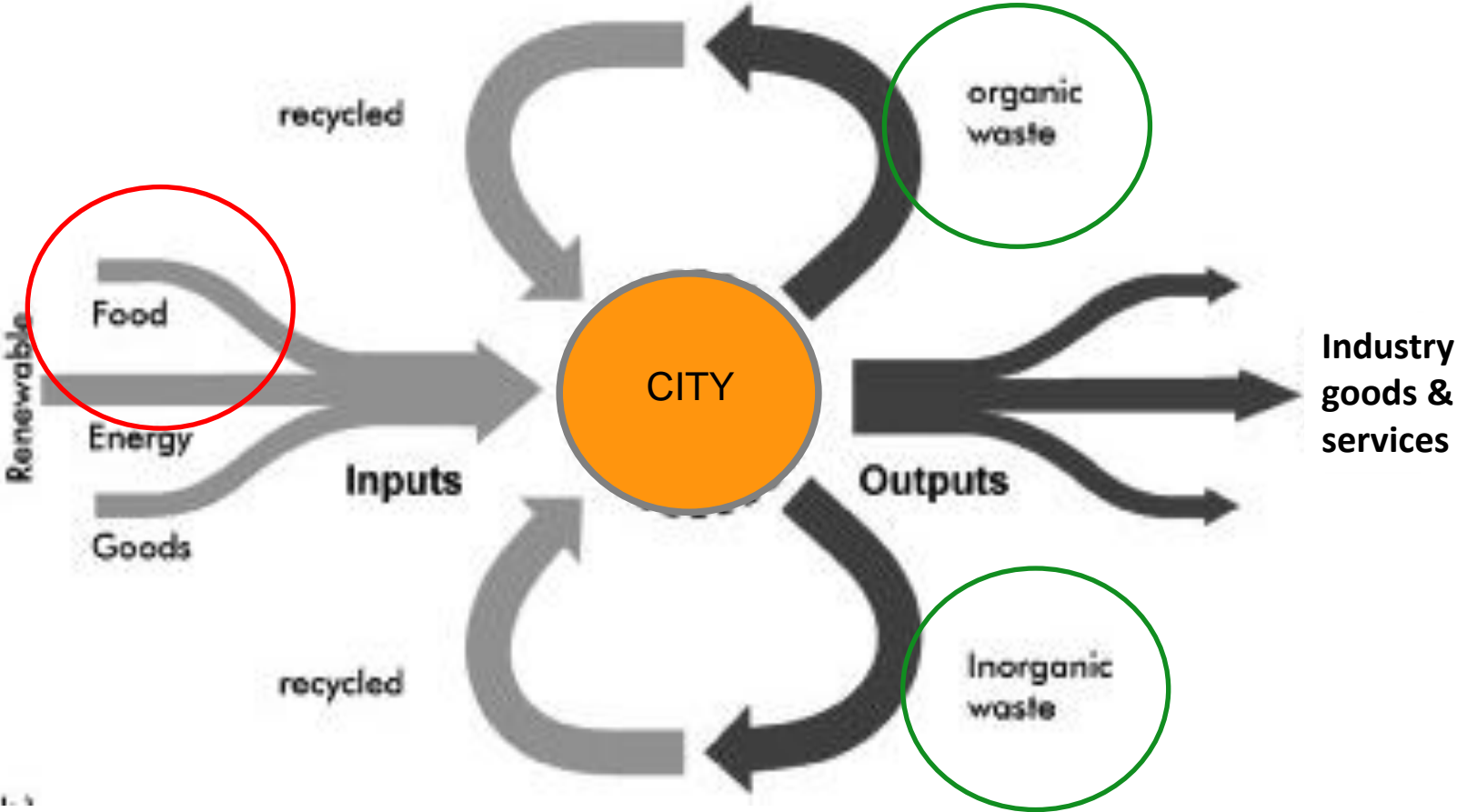
Future challenges of the New Urban
World: what model of development
for the Moroccan city?
Rabat, October 1-2, 2012

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Introduction

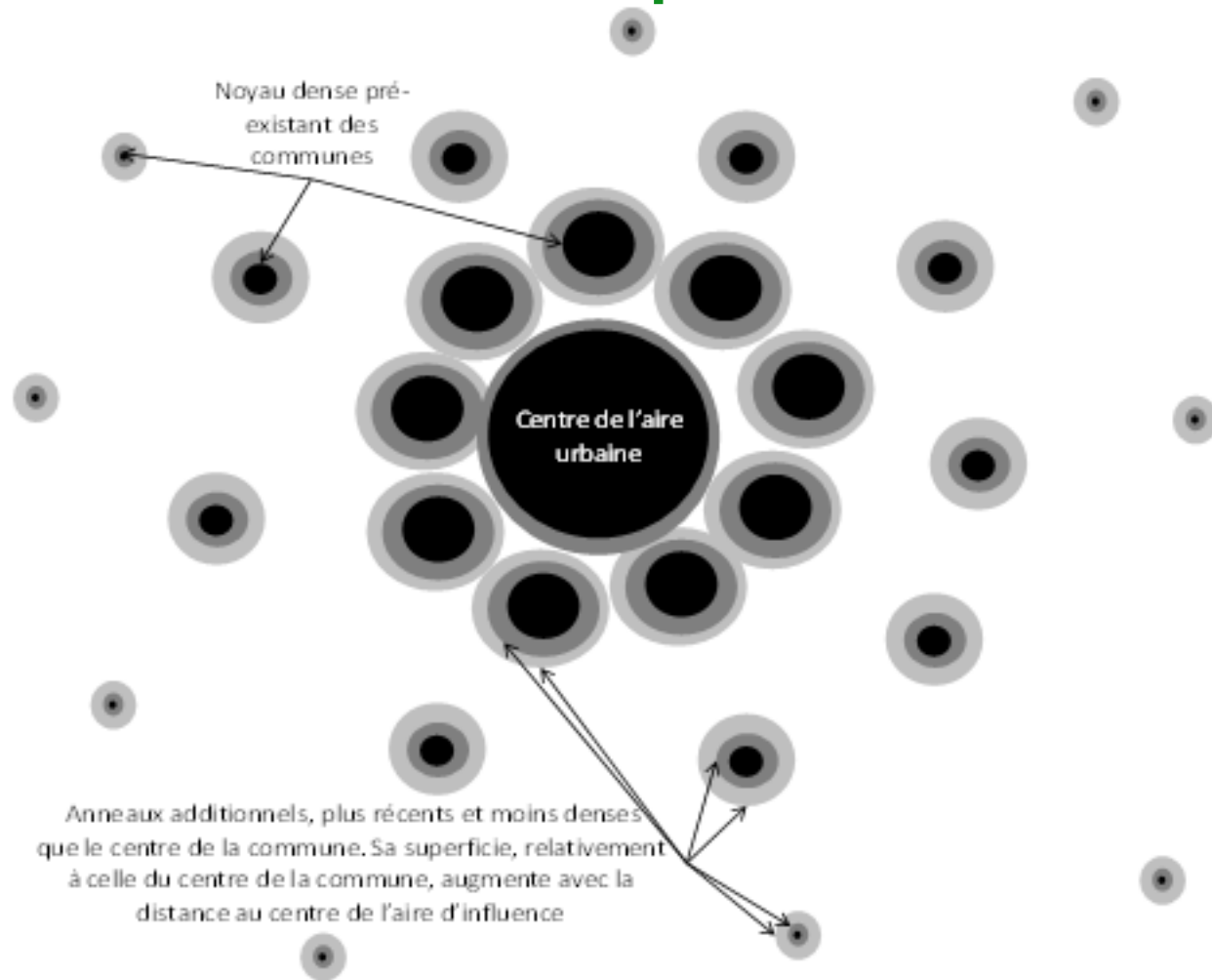
- More than 50% of the world's population is living in urban areas, and up to 80% is projected for 2050
- Modern cities
 - produce 80% of global GDP
 - occupy 3% of world land surfaces
 - consume 75% of natural resources
 - account for 60-80% of global GHG emissions
- Feeding the cities becomes crucial
- Cities are concentration of populations who do not produce their proper means of subsistence

Urban metabolism and agricultural functions



Urban sprawl and land consumption

Castels,
2007



Two main challenges

- Future: possible increase in transport costs (agricultural food miles) and raising concern for environmental divide (ecological print of alimentary goods)
- Question of the sustainability of transporting food infrastructures
- The raise of proximity feeding solutions is directly related to two main contemporary challenges:
 - The development of **urban and peri-urban agriculture**, within and around the cities
 - The **land use pressure on agricultural lands**, on the borders of urban areas, and their transformation into artificialized spaces

**Land use conflicts in peri-
urban areas
the example of the Greater
Paris region**

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Conflicts in peri-urban areas

- Urban sprawl: mostly at the expenses of agricultural soils
- Competition between various land uses near the cities: Facilities for the city, infrastructures, residential areas, natural areas, agriculture...
- Land degradation, urban expansion and conversion of crops and cropland for non-food production (biofuels...) may reduce the required cropland by 8-20% by 2050, if not compensated
- This competition can lead to tensions... and conflicts

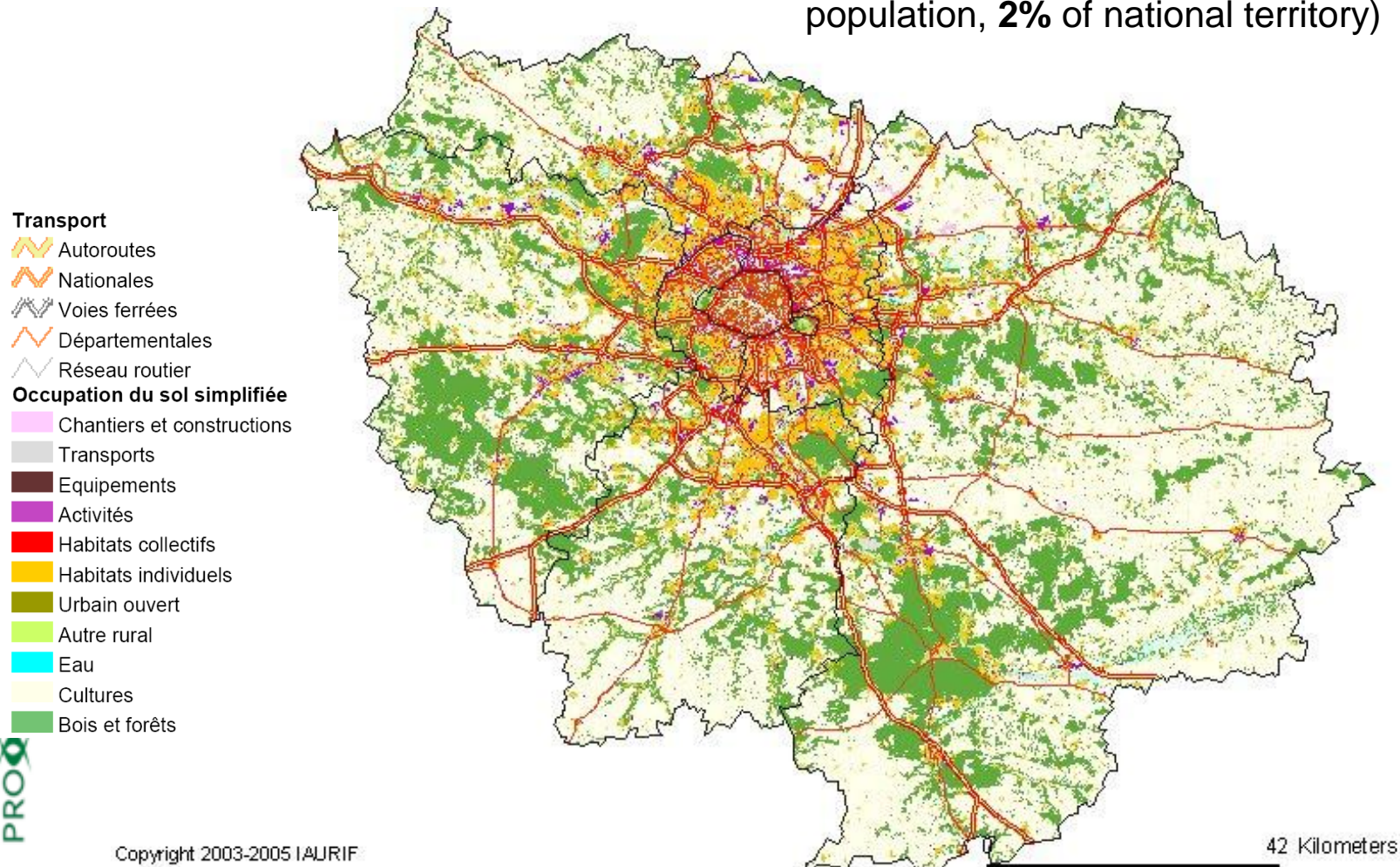
Land-use conflicts and agri-urban system regulation

- In peri-urban areas tensions between city and agriculture were traditionally regulated by the leaving of agriculture (relocation; exit strategy)
- Today, the spatial coexistence between city and agriculture is a long term state for more and more peri-urban areas (ex: urban agriculture).
- This change reveals the emergence of new regulation processes in peri-urban areas
- Land-use conflicts are part of these processes, and they can reveal a large part of these changes

The Greater Paris region

53% of regional area still used for agriculture (**90%** for cereal cropping systems)

11,5 millions of inhabitants (**18%** of French population, **2%** of national territory)

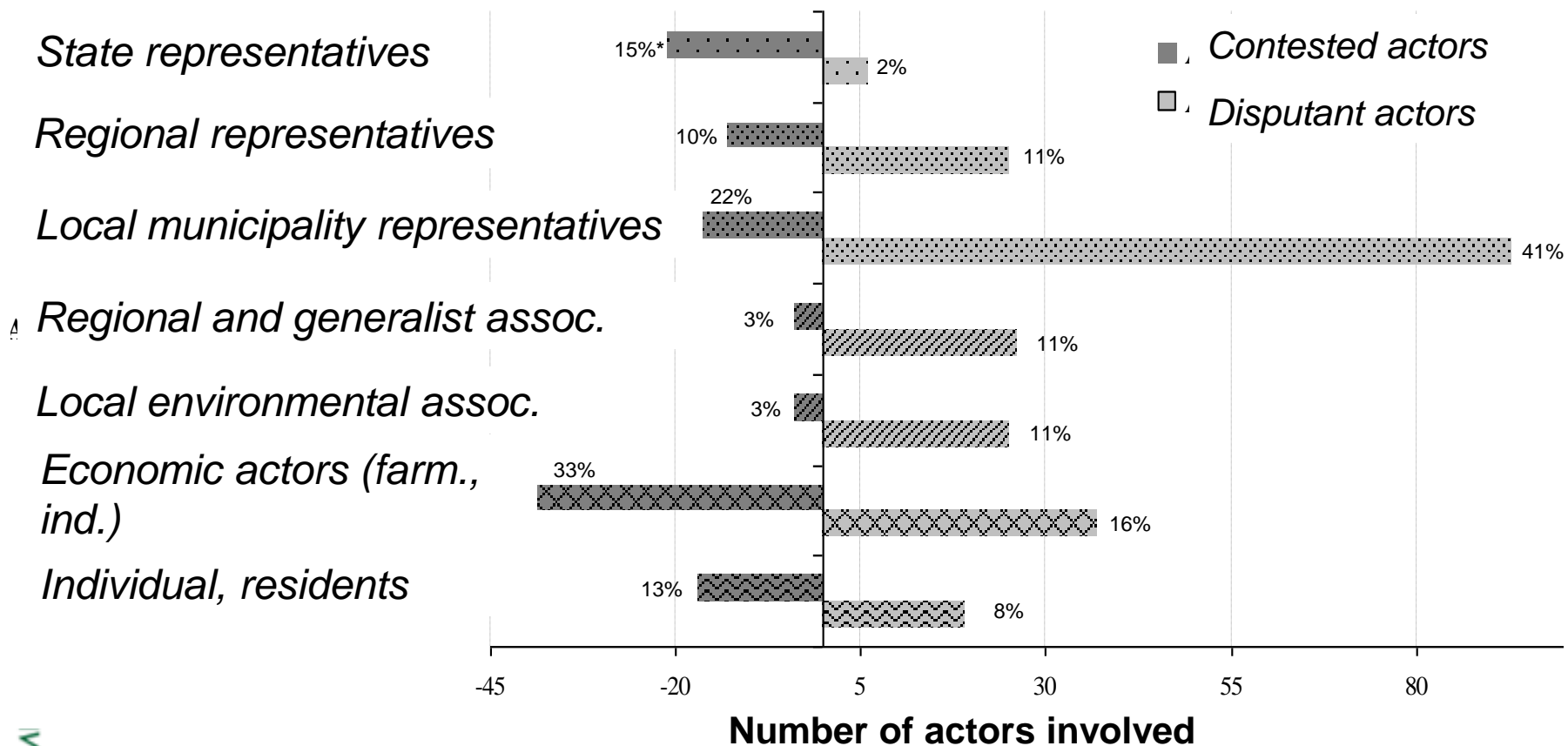


Land use conflicts: main figures

- Various types of conflicts, on Paris urban fringes
- Mostly related to the consumption of agricultural soils
 - 72% related to urban and industrial pollution or (mostly agricultural) land consumption for urbanization (damage the quality of life and slow down the economic development of farming activities)
 - 27% related to rural landscape degradation caused by new urban buildings in rural areas
 - 16% related to agricultural pollutions and noise
- Superposition of uses, contiguity, nearby externalities (pollution, landscapes)
- Intense institutional activity (zoning, charts, dedicated areas, incentives, agricultural programs...)

Groups of actors in conflict

Les acteurs en opposition (source : Le Parisien 2003-2005)



Urban and peri-urban agriculture

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The fall and rise of urban agriculture

- Geographical concentration of food demand in urban areas
- Traditional use of peri-urban agriculture
- Persistence of urban agriculture in developing countries: Mexico City: 2 M liters milk everyday
- Renewal of urban agriculture in developed countries: Detroit... Montreal...
- Traditional market forms: window sitting, farmers markets
- New forms: box schemes, community supported agriculture forms, pick-your-own farms...

Peri-urban agriculture

Near the city: food for the city and short supply food chains



Hanoi



Utrecht



Paris



Antananarivo

Urban agriculture

Inside the city: community gardens, green roofs, vertical farms...



Dakar



Kenya



Utopia?



Seattle



Montreal

South & North: differences

- **South** : lack of territorial planning tools and/or low implication of local authorities on land planning but high priority given to food security
- **North** : abundance of territorial planning tools but low integration of sustainable food issue ; food security is not a priority for local and regional authorities

South

Response to local food, insecurity and volatility of food prices

Jobs and income creation

Crucial social safety net in periods of food and economic crises

North

Public health approach / nutrition

Urban sprawl limitation

Protection of environment / biodiversity

Climate change mitigation /

Adaptation

Sustainable water management

Social and quality of life dimensions

Conclusions

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Conclusions

- Food **governance** of urban regions & food planning, as an axis of sustainable local development
 - new interaction between city/food/agriculture
 - new ecosystem of cooperation between different stakeholders, at various geographical levels created around the dynamics of food issue
 - long term, global, systemic approach of land planning
- Agriculture and Farming not only linked with feeding dimensions, but also with landscapes dimensions and quality of life (especially in northern countries?)

Thanks for attention!

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