Urbanization or ruralization: Which way to a sustainable future?

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organized by Johan Rockström and Lisa Deutsch at the Stockholm Resilience Center.

I have a difficult time seeing large cities as a sustainable path to the future. Instead, I believe policy should be directed toward maintaining a decentralized population close to the land. Instead of growth, large cities should begin returning space to nature within city limits by building or re-populating smaller towns out in peripheral land. The reclaimed city land can be used for urban agriculture as well as biodiversity, recreation and other ecosystem services.

Why ruralization? 1) Food can go directly from farm to people by bicycle and walking, making food security independent of transport energy. **2)** Nutrients can be recycled to the land from kitchen compost and human urine/faeces without complicated systems and energy-dependent transport. **3)** Direct farm-to-table community agriculture eliminates the middlemen, giving both farmers and consumers a better price and thus income security. Being local, neither big money nor big debt are involved. Instead, more people work on the farms and in the local economy.

System ecologist Dr. Folke Günther gives an excellent pedagogical presentation of these arguments, including quantitative analysis of nutrient recycling and a plausible 50-year ruralization scenario: Ruralisation with Eco-Units. Günther's homepage.

Agronomist Technical Dr. Shesti Johansson shows here why biofuels cannot meet the needs of the world transport industry. Farms may be able to produce enough to fuel their tractors, but no excess for sale. Thus if radical climate change is to be averted, and people fed, transport will have to drastically decrease. Food or Fuel, S. Johansson, 2013. Summary.

Agronomist Dr Kristina Belfrage studied how to run a small ecological farm without external inputs, using either horses or a tractor fueled with on-site biofuel. Farm yields remain high, but require increased manpower (four times tractor manpower if horses are used). Integrating Food Production and Biodiversity

FAO, UNEP and other international expert bodies today advocate small-scale, diverse farms as the way to food security and sustainability in the developing world. Now it is time for the developed world to move in the same direction. See, for example:

- UNCTAD Trade and Environment Review 2013 (pdf). Review.
- UNEP Assessing global land use: balancing consumption with sustainable supply (pdf), Review
- Agroecology and the Right to Food, UN, 2011.
- FAO Save and Grow.
- IAASTD: Agriculture at the Crossroads, UNEP, 2008.

To me, the above analyses, data and scenarios provide a solid foundation for planning a sustainable future. Current urbanization trends, on the other hand, rely on business-as-usual assumptions regarding fossil fuel availability, energy, waste disposal and the current industrial food systems that have proven so destructive to the planet. Is there really a choice?

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