SUMMARY | 2008

HIVOS KNOWLEDGE PROGRAMME

FOOD, FEED AND FUELS

a Knowledge Survey and Framework

SEI STOCKHOLM ENVIRONMENT INSTITUTE

people unlimited
HIVOS

Introduction

Many recent trends threaten to reframe global policies on agriculture. These trends include climate change, rapid urbanization, economic growth, increasing meat in the global diet, and decreasing purchasing power of the poor. Recently, rising oil prices, harvest failures, animal diseases and low levels of stock have colluded with the longer-term trends to push food and feed prices upward, bringing the topic of agricultural policies to the fore.

From mid-2007 to early 2008 Hivos partnered with Stockholm Environment Institute (SEI) to assess the state of knowledge on competing food, feed and fuels pressures on land use. The goal was to delineate knowledge needs in the field of sustainable economic development with a special focus on the economic position of marginalized groups. The results of this knowledge survey are summarized below. Based on the outcome of the survey, Hivos has decided to broaden its focus and develop knowledge on small producers' agency in the globalized market, and is currently exploring partnerships with interested knowledge centres.

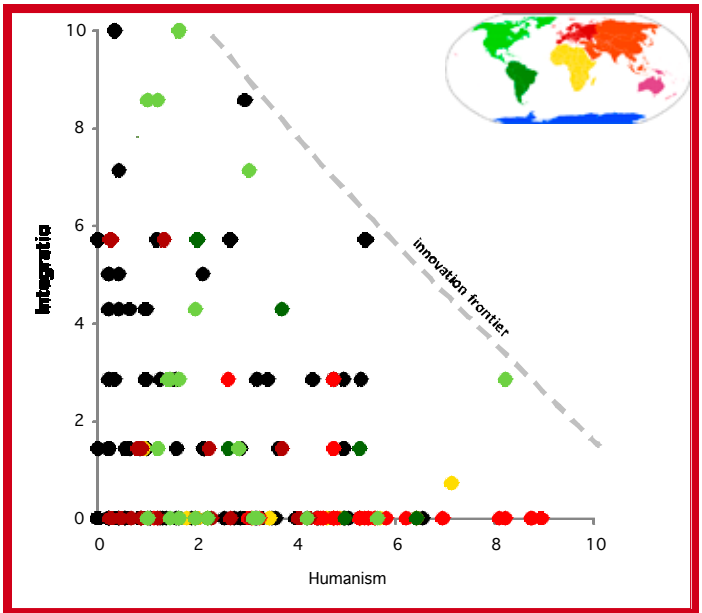
Methodology

The knowledge survey was based on a literature survey, consultation with energy and agricultural professionals, and the mapping of literature and organizations into a knowledge framework. The literature was classified in a system tabulating 57 different parameters, and then mapped onto a two-dimensional knowledge framework. One dimension of the framework measured the degree of integration between food, feed and fuels concerns; while the other dimension measured the degree of attention to humanist (rather than physical) parameters. We found a broad distribution of literature on both axes, but also a clear "innovation frontier" revealing an absence of literature treating humanist issues in the full context of food, feed and fuel pressures taken together.

Findings

The survey was entitled *Food, Feed and Fuels; Consequences of land use change patterns for the livelihoods of marginalised people in the South*. Concerns about changing land use patterns are on the agendas of many research and advocacy organizations. Hivos is especially interested in the impact of these changes on the livelihoods of marginalised people in the South and formulated seven related questions, pursuing median "answers" to each via the knowledge survey. Experts' opinions are clustered around the conclusions given below. Some questions remain unanswered and need further research, these knowledge gaps are listed in a subsequent paragraph.

Q: What will be the impact on the terms of trade for agricultural bulk products from the South?
A: A real potential for developing nations to improve their terms of trade is constrained by technological limitations and existing OECD agricultural policies. Developing countries located in tropical and sub-tropical regions have, in principle, a comparative advantage in primary agricultural production due to higher productivity and lower labor costs, ceteris paribus (other things being equal). Whether or not this advantage can be realized will depend on many other factors, such as access to technical support (e.g. agricultural equipment, agronomic knowledge), availability and cost of key inputs (e.g. water, fertilizer), and access to transport and distribution infrastructure. With the current system of trade supports in OECD countries,



Literature collected and categorized in the Knowledge framework. Horizontal striation in the data is due to a course formula for Integration that yields a limited set of unique values.

the terms of trade will improve only slightly and only in those cases where an exporting country in the South has special expertise with particular crops or agronomic techniques.

Q: How will the increased competition for land affect the access and control of smallholders in the South to farmland?
A: The likely effects of new food, feed and fuel demands on smallholders access & control to farmland vary regionally and are, amongst others, depending on land tenure schemes.

Expansion of biofuel production will probably entail large-scale agro-industrial production, which might lead to consolidation of landholdings and dispossession.

Q: To what extent will smallholders in the South profit from the increased commodity/food prices?
A: It is difficult to generalize about the expected real-world impacts of biofuels on smallholders, owing to the different effects of: different feedstocks/ production systems; varying downstream (transportation) costs; existing (non-biofuel) crop production and processing patterns; and patterns of land holding. However, one thing that can be clearly extracted from the literature, is that there is a broad consensus that an expanding demand for agricultural sector products due to burgeoning biofuel demand is by no means guaranteed to benefit rural households.

Q: What will be the impact of increased competition for farmland on food production, on food prices and on food security especially for households in the South without access to farmland including urban households?
A: Food price pressures over the next 5 to 10 years will be substantive but not necessarily shocking, while a growing coupling between food and fuel prices will reduce food security. Non-producer households will be exposed to correlated price volatilities on their two primary budgets: food and fuel and will thus become more vulnerable. Increased pressure on land resources is expected to lead to a transfer of wealth away from urban residents and toward landholders.

Q: What will be the impact on producer-consumer relations and on for instance gender relations, and how are they to be addressed?
A: Knowledge on producer-consumer relations is typically framed in terms of contrasting rural and urban destinies, probably because most economic effects of biofuel development are likely to be indirect and hence have little obvious effect on producer-consumer relations. Gender issues are addressed in the literature studied but do not provide a consensus answer to the above question. Commercial biofuel farming, where labor is often paid on a quota system, seems to favor male employment; at times women offer unpaid labor to help their husbands meet the quotas. In China, and throughout Asia generally, small-scale biofuel development is viewed as a means toward improving the quality of life for women.

Q: What will be the impact of increasing commodity/food prices for quality markets (social and environmental standards)?
A: The likely effects of increased commodity and food prices on quality markets are yet unknown
Q: How will the increased demand for land farmland/production conversion affect (agro-) biodiversity, global warming?
A: Biodiversity and carbon stores are both significantly threatened by increased land pressures and especially by conversion of natural ecosystems to bioenergy crop plantations. Negative impacts can be mitigated by utilizing existing agricultural and degraded land, and by employing appropriate management practices.

Food, feed, fuels factors

The food-feed-fuels picture varies greatly from nation to nation, and even locale to locale. The balance of forces in any particular population will include, but not be limited to:

- Degree of economic development
- Degree of urbanization pressure
- Land availability and potential to expand arable land
- Legal protections for landless peasants and smallholders (strength of land tenure)
- Level of organization of smallholders
- The nation's trade balance in food
- The nation's trade balance in energy
- Traditional diet
- Degree of diet westernization
- Potential to expand arable land
- Cultural flexibility, especially surrounding gender roles
- Likely biofuels crops
- Forecast local climate change

'Given the current state of rural development policies and infrastructure in most developing countries, this competition for land is unlikely to benefit small farmers' access and control of farmland unless targeted policies are put into place.'

Knowledge gaps

Based on the knowledge survey, a set of knowledge gaps was also identified:

- Quantitative understanding of the effects of global prices when they are viewed on a national or subnational scale;
- The implications of quantitative, modeled results for typically externalized parameters like food security and human rights;
- Deployment schedules and policies for second-generation biofuels, which are uniformly agreed to be much less threatening than first-generation biofuels;
- Effects of increased commodity and food prices on quality markets;
- Integration of freshwater price and availability into agricultural and land use analyses; and
- Availability and effectiveness of legal protections for the rural poor

We equally found a distinct separation between existing economic modeling practices for agricultural markets and those for energy markets. Given the fact that biofuels could best be understood as an extension to existing, agricultural dynamics the various models require integration.

Knowledge network

A description of the network of knowledge on food, feed and fuels pressures on land use was assembled, including "who to watch" organizations for each of the knowledge gaps. We observed a well-organized and coordinated "top-down" network associated with wealthy, OECD countries; and a "bottom-up" network composed principally of (very) small NGOs. The bottom-up network has valuable information to communicate, especially regarding the situations of small-holders, but contact between the top-down and bottom-up networks is sparse.

Policy guidance

The survey made clear that the effects of the increased demand for biofuels could best be understood as an extension to existing agricultural dynamics. This made us look at other assumptions that had come to the fore and determine the following guidelines for future studies:

- Understand biofuels as an extension to existing agricultural dynamics
- Put human rights and ecology at the core, instead of economics
- Treat diet and fuel demands with equal concern
- Where economics are concerned, support model-based knowledge generation

'Many of the issues raised by biofuels are clearly not unique to biofuels, but rather are challenges that have faced agriculture and rural development policy for many decades.'

The way forward

Reflecting on the history of agricultural economics, and viewing biofuel developments as an extension of existing agricultural dynamics, Hivos decided to broaden its scope. Hivos will focus a Knowledge Programme on small producers' agency in the globalized market. The aim of this Knowledge Programme is to integrate knowledge about roles and opportunities for the rural poor and smallholders in particular by (a) fine-tuning our current understanding of trends in rural livelihoods and agricultural markets, (b) studying the modalities that can and are being used to enable the rural poor to take advantage of current opportunities while circumventing the risks, (c) studying experiences/best practices of smallholders' organisations and cooperatives in adapting to global and local market changes, and (d) analyzing different approaches and strategies used by international organizations to develop sustainable income/market opportunities for the rural poor. Hivos is currently exploring partnerships with interested knowledge centres.

Hivos Knowledge Programme

Knowledge sharing within Hivos and with its partners has been a core activity of Hivos for quite some time. A need was identified to go beyond sharing and to initiate new knowledge programmes in cooperation with leading knowledge institutions in the North and the South. So in 2007 Hivos initiated a full-fledged Knowledge Programme focused on specific themes. The strategy used is knowledge integration. By integrating various forms of (new) knowledge – academic knowledge, practitioner knowledge, educational and cultural expressions of knowledge – new insights can be created and strategies formulated that contribute to the development of new policies and practices for the development sector. Themes include Civil Society Building, Promoting Pluralism, Closed Societies in West Asia, Freedom of Expression and Sustainable Economic Development.

Information

For more information on the Hivos Knowledge Programme, please contact the coordinator of the programme, Josine Stremmelaar (info@hivos.net). For more information about SEI, please contact scientist Roel Hammerschlag (roel@sei-us.org).

About Hivos and SEI

Hivos is a Dutch non-governmental organisation inspired by humanist values. Together with local organisations in developing countries, Hivos seeks to contribute to a free, fair and sustainable world in which citizens – women and men – have equal access to the resources and opportunities for their development.

SEI is an international research organization working on sustainable development. Its U.S. Centre is a research affiliate of Tufts University in Massachusetts. SEI has a networking research approach, involving partners in the regions and places of research to incorporate local knowledge and values.

www.hivos.net

Contact

Humanist Institute for Cooperation with Developing Countries (Hivos)
Raamweg 16, P.O. Box 85565, NL-2508 CG
The Hague, The Netherlands
T +31-70 376 55 00 | **F** +31-70 362 46 00
info@hivos.net | www.hivos.net

Stockholm Environment Institute (SEI - U.S. Centre)
11 Curtis Avenue, Somerville, MA 02144, USA
T +1-206-547-4000 | **F** +1-617-449-9603
roel@sei-us.org | www.sei-us.org

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