

Preparing for peak oil at the small community level

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A view from the hill in the «Écohomeau de La Baie»

In natural ecosystems, species facing resource depletion are confronted to adapt or die. With peak oil, peak phosphorus and other resources depletion, human being will face the same challenge of adaptation. The main problem with preparing our adaptation is that we don't know what will be our new conditions of existence. We have to make a good deal of suppositions about the future and find solutions for that. But, a relatively good answer is to live sustainably with natural resources surrounding our home.

Here in the «Écohomeau de La Baie», a small ecovillage on the shore of Saguenay Fjord in Quebec Province (Canada), we experiment how we can live a sustainable life after peak oil with our surrounding area and people in a nordic environment (-35°C in the winter). This ecovillage is composed of five straw bale houses, one log house and a lot of farm buildings. Each one of six families have one acre plot for his house, vegetable garden, fruit trees and poultry house. There is also an organic farm in the ecovillage. We are surrounded mainly by forests and also by arable lands.

Food and farming

« Les Vallons de Chambreule », the farm in the «Écohomeau de La Baie» own 50 acres of land of which about 60% is for agriculture and pasture and 40% for woodlot. Beside pasture, arable land is used to produce grain, legumes and hay. The farm has a small herd of sheep, a donkey, a small vineyard, a nut trees plot, a sugar maples plot, two greenhouses (25x75 feet), a stable, a workshop and other farm buildings. We use a small tractor for big works but a lot of work is done manually.

The farm main revenue has been a market garden since 1998. We have produced CSA (Community Supported Agriculture) baskets of vegetables since 2000. The farm fed 77 families with CSA basket in the last year (2006), but now the mission of the farm have changed to produce all the food stuff (grain, legumes, milk, meat...) for the families in the ecovillage with a LETS (Local Exchange Trading System) in the future. But the families will have to produce their vegetables, some fruits and eggs on their one acre plot

and return a part of their humanure to the farm land in proportion (of nutrients removed) of their buying from the farm. This is a new kind of Community Supported Agriculture that we are developing. We want to recreate a complete cycle of nutrients and a positive net energy agriculture.

Energy and economy

Food is the primary energy for humans (metabolic) but beside that we need energy for heating, lightning, transportation...

Each house is solar oriented and use a masonry heater for heating space as well as water in the winter. The masonry heater is fed with wood log from farm or surrounding forest. Some houses are equipped with solar panels to heat water in the summer.

Electricity for appliances is provided by Hydro-Québec, a sound choice regarding the fact it is more that 95% hydro-electricity and also very cheap ($\pm 6\text{¢}/\text{kWh}$). The drawback of such a low price is that it's difficult to have incentives for small producing capacities and for energy savings. On the farm land, a small stream, with a 50 feet fall, can provide some electricity for houses and we plan to use it in the near future.

«Écohameau de La Baie» is 15 km from a city of 20 000 peoples and 30 km from another city of 60 000. More than 50% of its inhabitants work less than 5 km away. Some more transportation is needed for kid's activities (music lessons for example). Beside that, most of the families own only one car which is shared in some kind of car pool. We use oil for transportation now, but I'm working with some organisations to be able to produce fuel with wood in the future (There's a lot of wood in our region).

People

Inside the limits of «Écohameau de La Baie» live a dozen of kids (8 months to 17 years) and 10 adults. Everybody has lots of relations with neighbourhood and people living outside. We also maintain good relations with city administration having worked together to implant this ecovillage in 1990.

In 2004, we have faced an important conflict inside the ecovillage who was then divided in two camps. After negotiations to continue together, two families decided to sell their houses and quit the ecovillage.



My son Fabrice in a buckwheat field.

Now, we have retrieved the dynamic of the beginning days and we are ready to face the challenge of peak oil.