SINK OR SWIM IN THE PEAT-BOG

WHAT IS THE FUTURE FOR THE PEAT-BOG AREA IN UTRECHT?

The soil in the peat-bog area is primarily in use by diary farmers. Grass production for milk is the main goal, some parts are used to grow maize, but most of the land is too wet for growing maize. The Netherlands uses 30% of the diary-farming yield for there own, 70% goes for export. There are 1,3 million people living in the province Utrecht, 5% of their consumption is produced in the province.

The problem; Sink or swim in the peat-bog.
The peat-bog lowers between 5 and 10 millimetres a year, depending of the utilization. If the black soil is bare and the water level is low, the peat-bog lowers much faster, in comparison with grasslands and a high water level. The subsidence occurs by the incineration of the peat-bog. The cost of water management raises because of the soil, used by farmers, lowers faster than the built-up areas and the rivers. The incineration also causes more CO_2 in the atmosphere. The CO_2 emission of one hectare equals that of 10 cars. The subsidence is not a new problem; it started by the cultivation of the area in 1500 AD. The focus of the European climate agreement on CO_2 emission makes the problem more topical and urgent.

By travelling the world in a short amount of time I received a holistic view on the subsidence subject. I will list by country my discoveries and give in short my recommendations.

Brazil
The cost of labour in Brazil is cheaper in comparison to the Netherlands, but rent and transport are more expensive. I discovered that we are economical competitors of our neighbours and not from the rest of the world. The Brazilian farmer water management consists of digging big water basins for collecting rain in the raining season, and utilizing this water in dry times with pivot irrigation.

Singapore
A green environment is desired everywhere, it gives tranquillity and a natural look. In the city Singapore the roofs are covered with plants. There are no farmers in Singapore, it consists of buildings and is wealthy by trade. Trade equals money and CO_2 emission.

Indonesia
The food system of Indonesia operates different because of less prosperity and cheap labour. Going out for diner is cheaper than buying your own food in the supermarket, because the packaging of food cost more than supplying fresh food to the local restaurants. The locals meet and eat together in the same restaurants

Japan
The water management in Japan consists of heavy measures. Most rivers have concrete surfaces against erosion. The focus of the farmers and consumers is more on quality than on quantity. This results in a lot of small businesses and high production costs.

Israel
Israel is continuously under threat off war and violence. This results in a different state of mind. Sustainability goes no further than one generation, but everything is possible and negotiable. This creates great solutions and innovation. For example, dairy goats are being herd in the desert and fed with wheat germ, grown in the container next to the farm.

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England
The agriculture, production and market in England are similar to the Netherlands. I found out that by some big farms with their own brand on the local market, reputation is of great importance. This is why they work environment friendly and invest in sustainability.

America
A country without much regulation gives extremes, because there are no rules that point in a desirable business direction. Farms with several thousand animals and hectares of land, maximum production against low costs is the focus. These extremes meet a growing counter-movement like; Community Shared Agriculture. That favours sustainable production and straight delivery to the customer.

Australia
Australia is a huge island with a big export of agriculture products. The focus is on international trade. Water management is the key element for production, because water is scarce. In the outback the farms are keeping livestock on thousands of hectares and fencing the fields is labour-intensive. Australia is launching world's first livestock virtual fence.

New Zealand
Just like my own region there are primarily diary cows and grasslands. The grasslands are being grazed. There is a lot of attention for clean rivers. Because of the hills, water runs along several farms. Successful projects for clean rivers are only possible if everyone works along.

Recommendations
The subsidence problem affects the farmers and the citizens in that area. But the answer to the problem has to be political, because the market doesn't pay for environment friendly production. The customer wants his food cheap and the farmer provides this at the expense of the environment and in this case subsidence. If we want to solve the subsidence and CO_2 emission we have to give the land back to the sea and move to higher grounds, with enough space and food. But what if we want to stay in this area?

The solution
1. Increase the acceptance of subsidence and reduce CO_2 emission by sustainable local food production and consumption.
2. Use of new and existing techniques to reduce subsidence and to stimulate food production.

The role of the government; Stimulate good ideas from entrepreneurs who are positive minded about the future of the peat-bog area by;
- Arrangement support of the permits that are necessary.
- Subsidies for good ideas that needs big investments.

Ideas for farmers in the peat-bog area.
- Produce the food guide pyramid on farm for the neighbours. Mixed farming enlarges the biodiversity on farm and gives customer loyalty and convenience. Sufficient scale is necessary for impact and affordable products.
- Make water storage with floating solar panels and utilizing this water in dry times with pivot irrigation. The irrigation is a win-win situation in the peat-bog, more grass production and less incineration.
- Import a virtual fence system for dairy cows to stimulate grazing. Grazing gives a dense grass cover and this reduce the incineration of the peat-bog.