

# SAVE OUR SOILS



Arable land is a prerequisite for food on the table. Even so, arable land disappears every day through exploitation. However, the development can be altered. If we can provide arable land with some type of powerful, legal protection. Then we could save our soils as a long-lasting resource for future generations food supply.



DEN GODA JORDEN

# One motorway junction 500 000 loaves of bread

**This brochure is an action pamphlet in favour of arable land. Maybe you think that a few muddy fields are no big deal and nothing to argue about. Our opinion is however that the arable land represents the ground upon which civilization rests. No fields – no food. From this point of view the arable land is worth caring for – not least considering the needs of future generations.**

Good soil disappears at a furious pace all over the world. One of the more visible threats is caused by man. We hide arable land underneath houses, industries, roads and shopping malls. Land better needed for producing food and energy. Thinking about the future, this is not a very smart solution.

## More people per hectare

The thing is, the future means that more people must get by on fewer hectares. In 1960, there was 0.41 hectare arable land per person. In 2010, fifty years later, only half of this remained – 0.21 hectare – for every person to live from. If the prognoses are true, only 0.14 hectare per person will remain in 2050. This is an impossible equation.

## No new ground

The equation would have been possible if we had been able to produce more hectares of arable land, but we cannot. The development of new ground in Sweden took thousands of years. Due to this, arable land must be regarded as a limited resource, bound to become in short supply. That is why we are of the opinion that

arable land must be treated with respect and deference.

## Meeting with insight

Master Miller Anders Stenström was astounded when he realized how much arable land was required to build the junctions around the bridge across the Öresund between Malmö and Copenhagen in 2000. A 30 hectare big motorway turnoff (see above) on Europe's finest acreage would have been able to produce more than 500 000 loaves of bread every year. He could not allow the best soils of the country being destroyed due to urban development. In 2005 he therefore took the initiative to found the association The Good Soil - Den Goda Jorden.

European fields are also exposed to this. If the exploitation speed goes on undiminished, arable land corresponding to the total surface of Spain and France is estimated to be built away within the next 100 years as regards all of Europe. To stop this development, the natural resource must be protected now.

## Association aiming at preserving arable land

The purpose of the association The Good Soil is to convey information about the great importance of arable land for future generations' production of food and energy. The Good Soil works for protecting arable land from being ruined for ever after. The association's aim is to procure a strong and powerful legal protection regarding arable land. Our standpoint is that good farmland will be necessary in the future. Good arable land should be prohibited from being exploited.

*Hans Andersson  
Chairman for "Den Goda Jorden"  
a non-profit association*



# Contents

## Arable land – produced no more 4

The inland ice ground mountains down into soil and farmers turned the soil into arable land. Arable land is the result of thousands of years of hard work from Nature and man. Now there is no new development of arable land, which is why it should be treated with humbleness and respect – and as a limited resource.

## Fight about the soil 6

More and more people on the globe are to support themselves on fewer and fewer hectares of good arable land. If we continue to live the way we do, the equation is impossible. Rich nations realize this and rent or buy land all over the world to secure the access to food supply at home. In Sweden, however, we build houses and roads on the best arable soils, without thinking ahead for a minute.

## Good soil is replaced by bad soil 8

The arable area of the Earth is rather constant, about 1 400 million hectares (FAO). About 100 million hectares has disappeared during the last decades. The problem is that the best arable land is destroyed and replaced by land made from steppes and rainforests.

## Our world is oil-doped 10

Oil is a drug that intoxicates the entire globe. The consequence is a changed climate with extreme drought and strains on food supply. The fact that the oil is beginning to run dry means that arable land must be protected for production not only of food but also of bio-energy. To protect arable land is a wise precautionary strategy.

## Import – a risky solution 12

In Sweden almost half of the food basket is imported. It is an insecure solution, with fluctuating prices. Nobody can predict about the world's future food supply. In this perspective, and considering a safeguarded ability to supply food, possessing your own arable land can be very important.

## Arable land is without legal rights 14

Arable land has weak legal protection. The responsibility lies with municipalities that overbid each other to entice establishments. The city politics affect fields that are hidden underneath asphalt and concrete. Regional co-ordination is necessary and arable land must be provided with some other powerful, legal protection

# Arable land – *produced no more*

The inland ice ground mountains down into soil and farmers turned the soil into arable land. Arable land is the result of thousands of years of hard work from Nature and man. Now there is no new development of arable land, which is why it should be treated with humbleness and respect – and as a limited resource.

To produce good arable land is very similar to good cooking. For a start, fine ingredients are necessary. Then you require skill and sense to turn the raw material into a successful final result.

Took 10 000 years to make

A meal can be cooked in a matter of hours and minutes. To produce the good, Swedish soil that we farm today, thousands of years were required. The basis of the soils is the wet mud left behind when the latest inland ice withdrew towards north some 10–15 000 years ago. Then the several kilometres thick inland ice through its enormous weight and movement had ground and pressed down stone blocks into fine soil. Thus, arable land is developed from extremely long-term and overwhelming natural, geological processes. Due to this, arable land must be considered as a limited resource. It simply is produced no more, and must be treated with respect and reverence.

Humus adds spices to the soil

The natural fertility and productivity of soil depend on the geological origin – the mineral composition. Through fertility-promoting cultivation methods, the yield of the raw soil is then improved. If we are allowed to continue com-

paring with cooking, one of the most important spices in good soil is the content of organic material, humus, making the meal tasty. In soil, it mainly comes from plant residues degraded in the soil by earthworms and microorganisms. The humus makes the soil easier to cultivate, has a good water retention capacity, aired and porous. The process to build up the humus content takes hundreds of years. Good soil takes time to produce.

## Water and wind erode the land

The black-coloured areas are exposed to or sensitive to water erosion – or exposed to wind erosion. The figure with horrifying clarity shows that western and northern Europe is spared from these natural phenomena, contrary to the majority of the globe.



Source: Norman Hudson. Soil conservation (London 1995).
















Found all over the country Swedish farmers' most fertile soils are found in the south-western parts of Scania. They are referred to as Baltic clayey till and can store a lot of nutrition, have good water retention capacity and altogether possess good physical qualities for cultivation. A sharp boundary runs north-east towards less fertile soils, originating from Swedish Archaean rock. The farmers of Scania have known

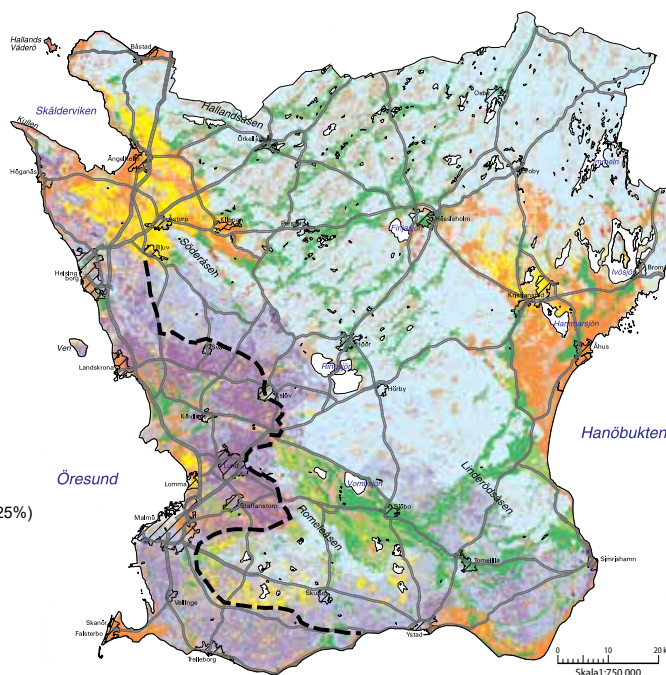
about this boundary for ages. The vast, connected farming areas also have fertile farmland, each in its own way. The presence of marl pits indicates limey bedrock. The flat country of the district of Östergötland has material rich in lime, with a good composition in both top soil and subsoil. Good arable land can be found all over the country.

## The best soils are built upon

In Scania, the best farmland is exploited. It is called Baltic moraine and is found in the south-west where the populated areas ruthlessly spread. In the east, it borders on soils, which are not as high-producing. Already today, 10–15 percent of the Baltic moraine soil is assessed to lie underneath asphalt and concrete, and more areas are threatened by the bulldozers.

### Soils of Scania

	Peat and mud		Fine clay till (clay content >25%)
	Flood-plain deposit		Coarse clay till (clay content 15-25%)
	Postglacial sand		Clayey till (clay content 5-15%)
	Clay		Moraine (clay content <5%)
	Silt		Sedimentary bedrock
	Ice Lake sand		Crystalline basement
	Ice river sediment		Made ground
	Border between Baltic moraine and northeast moraine		



Source: © Sveriges Geologiska Undersökning (SGU) , 2000

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### Propitious climate

The climate plays a decisive part for how productive and cultivation-stable the soil is. Sweden – and northern Europe – has favourable conditions for a sustainable agriculture compared to other parts of the world. Our climate offers enough water for cultivation, with – in a global perspective – less extremes of drought and torrential rain. Therefore we do not have any problems with salinization and only very little problems with soil erosion by wind or water.

### Winter gives extra points

Minus degrees are also a positive score for Swedish agriculture. The winter holds back aggressive vermin that prefer a warmer climate. Ground frost recovers and is beneficial for the soil structure. It makes the soil more porous so that the plant roots can develop and be surrounded by space for air and water storage. To sum up, we must be grateful for the fine arable soils we have in our country, they deserve a reverent and humble attitude.

## The soil is alive

One hectare (10 000 m<sup>2</sup>) corresponds to about the surface of 2 normal football grounds. In this one hectare you may find:

- 1 ton earthworm – the weight of 2 fully grown milking cows
- 15 tons fungus – fungus make the humid soil smell of "spring" in April
- 7 tons bacteria – as little as 1 gram soil contains 10 billion bacteria
- 5 000 km of earthworm burrow – the channels represent the soil's transport routes
- 300 000 km of roots – corresponding to about 7.5 turns around the globe





# Fight about the soil

More and more people on the globe are to support themselves on fewer and fewer hectares of good arable land. If we continue to live the way we do, the equation is impossible. Rich nations realize this and rent or buy land all over the world to secure the access to food supply at home. In Sweden, however, we build houses and roads on the best arable soils, without thinking ahead for a minute.

There is a tussle over arable land. The fight is about for what the ground is best needed – food or constructions. Unfortunately, this is not a new conflict.

## Expanding cities

The basic reason lies in cities originally expanding on the best soils. People settled down where they could be provided with food from the agriculture nearby without long transports. Since then, settlements and infra structure have spread by themselves, like a self-playing piano, in step with the productivity within agriculture having improved. This has lead to the fact that 98 per cent of Swe-

den's population are able to dedicate themselves to other things than producing their own food. As long as there is no lack of food, the process continues, but it cannot go on forever.

## Both under- and overnutrition

Today, we are about 7.3 billion people on Earth. In 2050, there will be approximately 9.7 billion of us, to get on well together over shrinking resources. The majority of the increased population will probably live in cities. All people need food. It is a matter of solidarity and ethics that all people must have access to food and water, and it is a challenge to obliterate famine and underfeeding, to man-

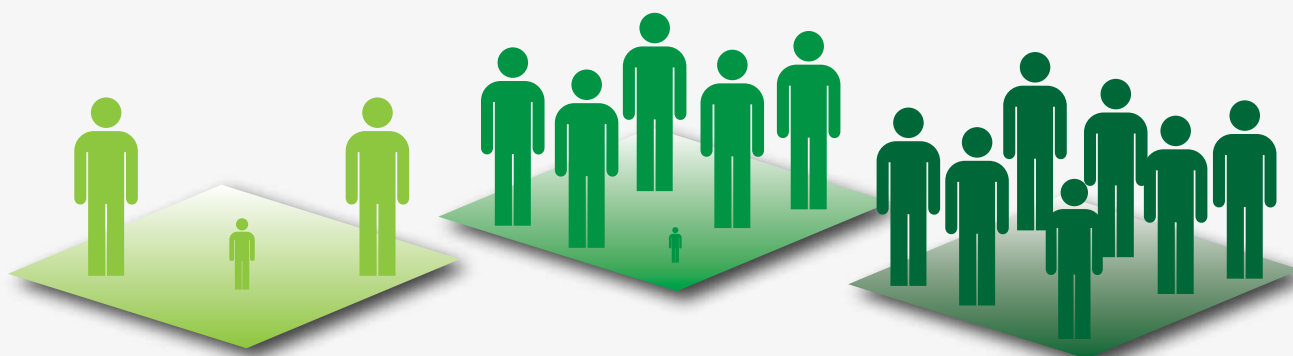
## So many people could be fed on 1 hectare

The arable land in the world is relatively constant, counted in hectares, but decreasing. Unfortunately, the good soil that disappears is replaced by soil of inferior quality. Simultaneously there are more and more people. This means that the same hectare must provide for more and more people

1960: 2.4 persons/ha

2015: 5.2 persons/ha

2050: 6.9 persons/ha



age the increase in population and consumption, prevent climate changes and not use up natural resources for future generations. The UN estimates that almost 1 billion persons today suffer from famine or are underfed. At the same time, 1.4 billions are estimated to be "overnutritioned". This clearly pronounces the unfair division.

#### More people on fewer hectares

The phenomenon with expanding cities and shrinking arable land is not only a Swedish issue. All over the globe it is the same thing. We humans grow more and more, but the hectares to feed us grow fewer and fewer. In 1960 there was 0.41 hectare per person. In 2015 the figure had decreased to 0.19 hectare arable land per person. To compare, the food consumption in Sweden at present is depending on an area of 0.41 ha per person, and the prospects in the future do not look too bright. In 2050 the figure points down to 0.14 hectare per person. This is an impossible equation when you look ahead.

#### To get hold on land

Many countries with a strong economy and with a growing population have realized this. They buy or rent arable land at an increasing speed in poor countries, to make sure there is food for hungry citizens back home. The phenomenon is called

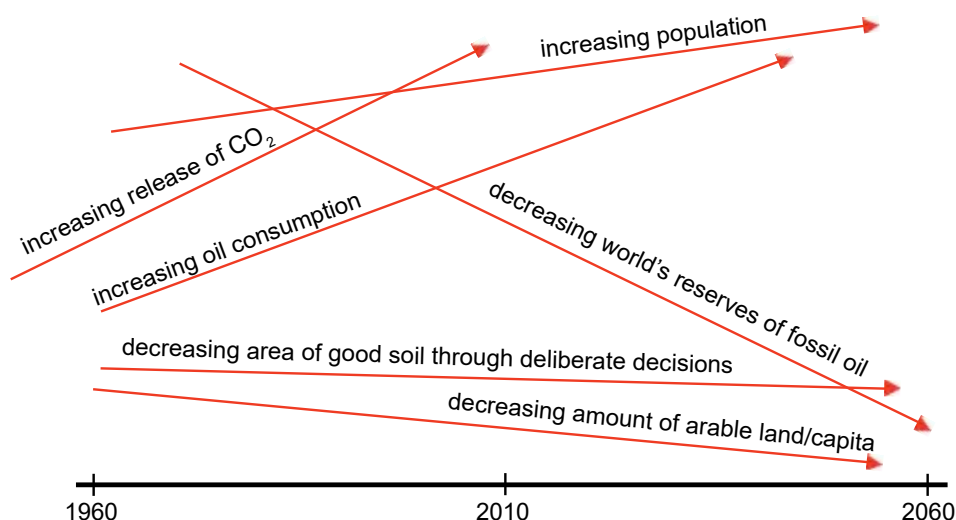
"land grabbing", not a very flattering expression. Now China, South Korea and many oil-producing Arabian nations thus look after their own interests and lay strategies for food supply. Swedish companies also buy land abroad. The sellers are poor countries, above all in Africa, but also in Asia and Eastern Europe.

#### The Best Soil is Taken

We do not see any stream of Chinese prospective buyers looking for Swedish arable land. If we had, we might have been able to understand the value of the soil, but we do not. In Scania 13 000 hectares – 7 per cent – of the best arable land disappeared between 1961 and 2000. Another 9 000 hectares approximately were 2006 planned for the next 25 years, only in Scania and Halland. In Scania 44 percent of the total expansion prospects of the populated centres are planned on arable land. According to the Swedish Board of Agriculture's latest report 2017, the exploitation speed has been quite constant during the last three 5-year periods. About 3 000 hectares per period disappears. Thus seemingly small numbers, if it continues period after period, real large areas are gone eventually. Around many growing big cities in Sweden, arable land is put under a lot of strain. The problem is most serious in fertile farming districts.

## Impossible equation

– how do we make plans for future generations?



# Good soil disappears...

The arable area of the Earth is rather constant, about 1 400 million hectares (FAO). About 100 million hectares has disappeared during the last decades. The problem is that the best arable land is destroyed and replaced by land made from steppes and rainforests.

## Three revealing photographs

Outside the city of Landskrona in Scania you can find some of the world's most even and fine soils. During the twentieth century they were used for developing new varieties of e.g. grain and oil seed plants for the agriculture. The even soil was invaluable for good breeding results. As from 2011, the soil is covered with asphalt and concrete, housing a logistic centre. Use the tower of the former church of Örja as an aiming point for the pictures.



The 20th century

2011



2013



## To consider

- The spreading of populated areas and infra structure is referred to as "urban sprawl".
- 275 hectares of arable land are covered with asphalt and concrete every day in Europe. In about 25 years, an area corresponding to all of Sweden's arable soil will disappear.
- It is the best soil that disappears.
- 7 per cent of the best soils Scania were built upon between 1961 and 2000.
- Another 9 000 hectares were in 2006 planned to be exploited the next 25 years in Scania and Halland.
- 44 per cent of the expansion plans of the municipalities of Scania regard arable land.





# ...and is replaced by bad

## Loss of arable soil

Between 5 and 10 millions of hectares of arable soil disappear every year all over the world. The reasons are soil destruction through desertification, saltification, soil erosion and exploitation for buildings and roads. The figure is to be compared to Sweden's arable area which is about 2.6 million hectares.

Saltification and wind erosion depend on drought and soil erosion on heavy rainfall, often because all protecting vegetation is gone. Exploitation mostly strikes the most fertile soils around big cities.



## Creation of farmland

About 8 million hectares are every year turned into farmland, from steppe and rainforests. These fields have a poor natural fertility and bring along a loss of biological diversity that cannot be replaced.

The rainforests are binding carbon dioxide and producing oxygen. When rainforests are cut down and the land is broken, enormous amounts of carbon dioxide are released.

In Brazil, 600 000 km<sup>2</sup> rainforests disappeared between 1970 and 2008, a 15 per cent decrease. 80 per cent of the area is used for cattle-farming and 20 per cent for soya bean cultivation. Sweden's total area is about 450 000 km<sup>2</sup>.



# The World is oil-doped

Oil is a drug that intoxicates the entire globe. The consequence is a changed climate with extreme drought and strains on food supply. The fact that the oil is beginning to run dry means that arable land must be protected for production not only of food but also of bio-energy. To protect arable land is a wise precautionary strategy.

The industrial revolution and society's development the last 100–200 years are based on the use of fossil fuel. First carbon and then oil has been the promoters for the economic expansion. Imagine a motorway during rush-hours. The day when the oil fields run dry, the tanks will rapidly be empty and vehicles scarce. Without fossil oil not only the traffic will suddenly slow down – the entire Western world will drive to a stop. Our existence is oil-doped 24 hours a day.

## A lot of diesel per hectare

Today's agriculture is not different from the rest of the society. Fuel is necessary for tractors and the plough is heavy. The diesel consumption lands on around 80 litres for a normal hectare of Swedish farmland with winter wheat, if you count in everything from ploughing to the threshing machine. That energy is enough for 200 Swedish miles on the highway for a rather modern, economic diesel car.

## Nitrogen costs energy

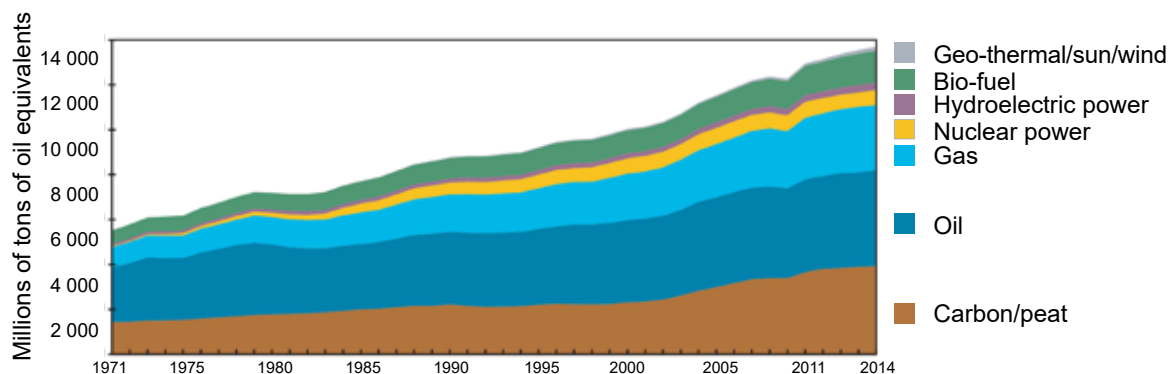
Fuel stands for a fourth of the Swedish agricultural energy consumption. However, the energy required for production of mineral nutrient nitrogen, stands for more, one third. To capture nitrogen from air requires what corresponds to 1.3 litres of oil per kg nitrogen. This means that the energy required for producing the mineral fertilizer nitrogen for one hectare of winter wheat corresponds to 200 litres of oil. It may sound as a bad business strictly energy-wise, but that is not the case. The energy produced on one hectare of arable land with Swedish winter wheat is 5 to 10 times higher than the input. Still, the energy contribution is high and the agriculture's need of fossil energy is a sensitive chapter.

## Descent of Oil

The thing is, the oil will run dry. The last years, PeakOil has become a concept more often heard in the debate. It is the point when oil winning no



## The World's consumption of fuel 1971 – 2014



Source: IEA, Key World Energy Statistics  
© OECD/IEA, 2016

In 2011, the world consumed 13 699 million tons of oil equivalents, a measure based on the energy content of average crude oil. The amount corresponded to 1 876 kg per person on the globe. However, the division is unequal. In oil-winning Qatar at the Persian Gulf, 135 times more oil equivalents per person were consumed than in Eritrea in Eastern Africa. Here in Sweden we consumed 33 times more than in Eritrea.

Since 1983 the consumption increases in a rather straight up-going line, but the recovery does not keep up, instead it levels away since 2005. The gap between demand and supply will increase. Source: IEA, Key World Energy Statistics © OECD/IEA 2016



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longer increases. The point when the remaining oil reserves are less than what has already been pumped up. The result is an increased competition for oil – and increasing prices. When the drops of oil become too expensive to be used for manufacturing mineral fertilizer nitrogen, the yield per hectare will drastically fall off by maybe 30–50 per cent. Instead, it will be necessary to catch nitrogen in the air with the help of nitrogen fixation from leguminous plants, which leads us to rotational cropping with seeded grassland. Then every hectare will again be necessary in order to provide us with food, but also to produce bio-energy that can take over from the oil. An efficient feedback of nitrogen and other plant nutrients from organic waste will also be necessary.

Drought puts a strain on the harvests  
There are also other reasons for taking care of the arable land. The fossil energy boom the last 50 years is a volatile parenthesis in global history that goes some 4 600 000 000 years back in time. The consequences of the parenthesis can however

be devastating for a long time ahead. By far most climate researchers agree that the combustion of fossil energy lies behind the dramatic climate changes. The warning signals are many and describe extreme temperatures, melting glaciers and polar ices, drought and torrential rains. For agriculture and food supply this means a lot of strain. In such a situation, every hectare of arable land will be needed and represents a valuable resource. However, the soil can only be such a resource if it is not buried underneath asphalt and concrete.

Double up Sweden's arable area for diesel  
In Sweden 45 TWh of diesel per year are consumed. It can be replaced by rapeseed oil. But if all that oil was to be produced from winter rape cultivated in Sweden, the double of Sweden's arable area would need to be covered with yellow rape fields. Beautiful, but totally unrealistic. This says something about our oil dependence.  
*Arithmetical example from AgrD Bengt Bodin, SLU.*

## Energy & Oil

- The world's energy consumption is expected to increase by 40 per cent until 2030.
- The world's oil winning no longer increases, but levels off since 2005 – many observers think that PeakOil has been passed.
- More than 80 per cent of the total energy consumption consists of fossil fuels.
- About 20 per cent of the world's total energy consumption goes to food supply.

## Fields & Energy

In winter wheat that catches sunlight in one hectare of Swedish arable land, 5-10 times more energy than is contributed is collected. Nevertheless, about 80 litres of diesel per hectare are consumed for fuel, which reveals agriculture's and society's dependence on oil.





# Import – a risky solution

In Sweden, almost half of the food basket is imported. But import is an insecure solution, with heavy price fluctuations on raw material. Nobody can predict for sure about the world's future food supply or our own future supply ability. Arable soil is a prerequisite for food on the table. In this perspective, your own, arable soil may come in handy.

The Swedish agricultural area reached a maximum of 3.8 million hectares in 1919. It was the first year of peace after World War I. Rationing and lack of food were in fresh memory. The hunger tearing the guts of poor people lead to riots and military efforts. Famine is a strong motive and precisely famine was the ignition for hunger marches and riots. Import of food was out of the question, as German submarines were lurching outside the Swedish coastline.

## Fields planted with forests

During the second World War the food situation was much better, despite blockings. Sweden was self-sufficient and the cultivated area rather unchanged. After the war 0.5 million hectares of "unprofitable" fields with poor fertility disappeared. The fields were planted with forests. On the remaining acreage productivity was however improved through diesel and mechanization, mineral fertilizers and pesticides. This brought better harvests that could keep up with the need of food.

## Soya beans turn into pork chops

Today, Sweden's agricultural area is about 2.6 million hectares., 0.27 hectare per person. However, food consumption in Sweden requires an arable area of 3.9 million hectares, 0.41 hectare per person. The difference represents the field area that Sweden makes use of abroad due to the import of food and input products, it is called shadow

area. A practical example is the soya beans that are imported from South America and are turned into animal feeding stuffs for Swedish pigs, in order to end up as pork chops on Swedish kitchen tables.

## 50 per cent self-sufficiency

The degree of self-sufficiency has gradually decreased the last 50 years, but since 1990 the decrease has been very substantial. Soon we will import 50 per cent of all the food we eat in Sweden, and produce only the remaining 50 per

cent ourselves. From an EU-perspective, this is extreme and the fact is that, within the EU, Sweden has the lowest degree of self-sufficiency as regards food, and thus the highest degree of import. Sweden's population is increasing. The Swedish arable area is decreasing. In other words: more persons must live from less land. Are we to import

food from a hungry world, or produce food on our own area?

## Drought and flooding

Thus, import is no sensible solution in a global perspective. Often, the food is best needed where it is produced, and transports pollute. The most important reason for producing your own food is however security. The food situation in the world today hangs on a thin thread, depending on water, weather climate changes and the global security situation. Big farm areas may in one year be struck with both severe drought and heavy rainfall. In 2010, the crops were totally destroyed by drought

The shelves are empty. The scenario is highly relevant when there is no import of food.



## The world's food supply must be connected to:

- Population development
- Oil – fossil fuels
- Climate changes and water supply
- Cutting down rainforests
- Speculations in food
- Different countries' strategies for securing food
- Food as political merchandise



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and fire in more than 10 million hectares in Russia at the same time as the fields were flooded in Pakistan. Then the price of wheat jumped up 50 per cent in a couple of weeks.

### Same pattern is back

We saw the same rise in prices in 2008, despite that there was no lack of grain. Instead, nervous raw material dealers, increasing oil prices and competition over arable areas between bio fuels and food drove up the prices. And in 2008, just as during the World War I, the lack of food and high prices caused riots in the streets among poor people with empty bellies. History repeats itself.

### Look 7 generations ahead

The examples from 2008 and 2010 show that conditions can rapidly change. Nobody can tell what the global food situation will look like even in 10 years. However, all people existing in the world in 1 000 years must be fed with food from the same globe as today. We have a responsibility to think and not live as though we were the last generation on Earth. On the contrary, we should take on the view of the Indians and think of the consequences of our actions seven generations ahead. In this perspective, and considering secured supply ability, arable land will prove itself very useful.

## Only half of the food basket is Swedish

Sweden's degree of self-supply of various kinds of food has decreased considerably the last 20 years. Since 2009, it has decreased from 61 to 52 per cent. The import has increased, which makes the food we eat less and less Swedish. Only one half of today's food basket is domestic. Compared to other EU-countries, Sweden is an odd bird with the lowest degree of self-sufficiency as regards food within EU-27.

Food	Bread, flour grain	Meat and meat products	Milk, cheese, eggs	Fruit	Vegetables
Import share %	23	40	24	93	67

*The import share of the food basket (in SEK) approaches 50 %. The table is based on statistics from 2008. Nothing has changed the general picture since then.*



# Arable land is without legal rights

Arable land has weak legal protection. The responsibility lies with municipalities that overbid each other to entice establishments. The city politics affect fields that are hidden underneath asphalt and concrete. Regional co-ordination is necessary and arable land must be provided with some other powerful, legal protection

As for today, arable land is in lack of an effective legal protection against exploitation. A number of legal paragraphs and environmental aim descriptions state how arable land should be regarded upon. In the legal texts below it appears that in words the arable land seems to have a certain protection, but in action, arable land is poorly cared for. The basic responsibility lies with the municipalities where planning and weighing is to be made with responsibility and consideration. This is not always the case.

## Lift the view up and away from the city

The exploitation pressure on arable land increases as every municipality makes plans only for themselves. All municipalities wish to grow, attract establishments to generate work and more citizens. The positive spiral is the basis of municipal

growth. For arable land, however, this is a negative spiral. Therefore, co-operation between municipalities or co-ordination on a regional level would make it easier to reach the intentions of the laws. The issue needs to be lifted up to a higher level of decision than the municipal. To lift the view and break with the city politics could save valuable arable land.

## Pointless laws

The laws have never in practice stopped a municipality from exploiting arable fields. The State – through the county administrative boards – has no right to intervene only for the reason that arable land is threatened. In connection with municipal survey plans being made out, the county administrative board participates in the treatment of submissions for comment. They can then



## The law says

The responsibility for arable land lies with the municipalities through the Planning and Building Law (PBL). In chapter 1, § 2 it says: "It is a municipal concern to plan the application of land and water."

### Example 1

**Our comment:** The future for land and water is too important to only be a municipal matter. These issues should be lifted up above municipal city politics.

In PBL chapter 2, § 1 and the Environmental Act (MB) chapter 3, § 1 it says: "Land and water areas are to be used for the purpose/purposes for which the areas are best suited, with regards to quality and position as well as prevailing needs. Priority is to be given to such use that brings good housekeeping from all points of view."

### Example 2

**Our comment:** Good housekeeping ought to mean that the more valuable the arable land is for food production, the more consideration must be paid to such use. It is however difficult to find such considerations when the best arable land is exploited.

In MB chapter 3, § 4 it says that: "Agriculture and forestry are of national significance. Arable land worth cultivating can be taken in claim for building or constructing only if this is necessary to satisfy significant social interests and this need cannot be satisfied from a general point of view in a satisfactory way through making use of other land."

### Example 3

**Our comment:** Normally, there are alternative locations – if only attention is directed that way. This perspective should apply generally and especially if the municipality wishes to live up to being a sustainable society.



## The solution

### – The association “The Good Soil” is of the opinion that:

- Expansion must be co-ordinated regionally – not municipally
- Other land must be given priority for expansion – do not build on arable land
- The status of arable land must be lifted up – provide it with some type of powerful legal protection.



>> point out, but have no possibility to demand. If the plans regard pointed out national interests, archaeological or natural and cultural environments, the county administrative board can however take action. This means that grounds with residues of stone-age settlements or leys with a red-listed anemone have better protection than ordinary, fertile arable land. For the fields that provide us with our daily bread there is no powerful legal protection. Instead, it should be a concern for all who wish to have oatmeal porridge and sandwiches for breakfast.

Environmental aims miss the arable fields  
The Swedish Parliament has adopted 16 environment quality aims for providing future generations with an acceptable living environment. The basic resource of arable land, has unfortunately been extremely unfairly treated. It is mentioned that "... the value of arable land for biological production and food production must be protected." The meaning of this is explained as: "The soil is cultivated in such a way that the long-term production ability of the field is maintained". But if arable land is covered with asphalt and concrete the production ability must be regarded as being gone for ever after.

## Protection for arable land in neighbour countries

**Denmark** has an arable acreage in size corresponding to that of Sweden. Danish agriculture however holds a stronger position as it represents a significant part of the economy. The land area is divided into city areas and rural areas, and the construction of buildings is concentrated to the city zones. There are regional environment centres with a veto right that can invalidate municipalities' plans if attention has not been paid to agriculture. However, this possibility has never been applied in practice.

**Norway** thinks: that the production of adequate and safe food for its own population is a basic task in a society. Three per cent of the country's surface is arable land, which gives 0.22 ha per person. The municipalities must document that possibilities for concentration have been used. Authorities on regional level have stopped projects where arable land would have been built away. A proposal for a land protection law has been drawn up, where decisions of exploitation are moved higher up in the system.

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Bunkeflostrand, south of Malmö – arable land of world class. The soil was there, impossible to wear out, at our disposal for thousands of years, ever since the ice age withdrew. But soon it may only be a memory – maybe this is the last crop that the farmer is sowing.



**The Good Soil, a non-profit association, was founded in 2005 by initiative of the late miller master at Berte Qvarn, Anders Stenström.**

We convey knowledge about the importance of arable land to future generations' production of food and energy. The association works for protecting arable land from being destroyed for all future. To preserve arable land represents sustainable development!

Support our work through a membership. The more members, the better the possibilities to make a difference. Development of public opinions and activities cost money!

If you have questions or wish to order material, please contact our secretariat at the Berte Museum – Life in the Countryside - in Slöinge, Sweden.

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