

# **Biologisk Mångfald: Bra för dig och alla andra**

**Report of a study tour on biodiversity in  
Sweden**

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February, 2000**

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**Oplage** 50 exemplaren

**Samenstelling** Paul van Ham, Gerard de Jong en Paul Verhagen

**Druk** Ministerie van LNV, afdeling Facilitaire Dienst/Bedrijfsuitgeverij

## Preface

The process of policy-making on biodiversity in agriculture in the Netherlands has started since the Government of the Netherlands signed the Convention on Biological Diversity.

The project group "Biodiversity in agriculture" has chosen an approach, in which communication and an intensive dialogue with different organisations and counterparts has a central position. One of the action points of this dialogue was to see whether we could learn from experience and successes abroad. In the report "Leerelementen voor een Nederlands agrobiodiversiteitsbeleid" the consultant AIDEnvironment pointed out that in Sweden, Canada and the United Kingdom important initiatives had been taken to work out the Convention on Biological Diversity in national policy and regulations.

For this reason we made a study tour to Sweden. In this publication the main experience and observations have been described. For the Netherlands the Swedish approach is important for two reasons.

During the last ten years Sweden has been undergoing a fundamental reform of Swedish Environmental Law. In the Action Plan "Strategy for Biological Diversity" equal weight and importance is given to environmental objectives and to economic considerations and emphasis is given on the importance of conservation of biodiversity in agriculture.

Secondly a key study of sustainable agriculture has been undertaken by the Swedish Environmental Protection Agency, in which environmental and sustainable goals are defined. It provides goals as a basis for an agricultural production to be modelled for the Swedish agricultural sector in the year 2021.

We want to thank all the Swedish contact persons of the different organisations (see annexe 1) for the real interesting program, the open and informative conversations and the very warm welcome. Specially we like to thank Mr. Albert Wegen, the Dutch Agricultural Attaché in Sweden. Mr. Wegen gave us excellent assistance in preparing the study tour as well as in arranging the conditions for a good exchange of information during this study tour.

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# Contents

<b>Preface</b>	<b>3</b>
<b>Contents</b>	<b>5</b>
<b>1 Introduction</b>	<b>7</b>
<b>2 Swedish Biodiversity Policy</b>	<b>8</b>
2.1 Main strategy of Biodiversity Policy	8
2.2 Characteristics of Biodiversity Policy	9
<b>3 Main experiences and observations</b>	<b>10</b>
3.1 Unanimity and Consensus	10
3.2 Tapping Into Public Sensibilities and Perceptions	10
3.3 Consolidation vs New Activities	10
3.4 Relationship between national and international work	11
3.5 Emphasis on Education and Extension	11
3.6 Biodiversity in the Agricultural System	11
<b>Annexe 1 Contactpersons in Sweden</b>	<b>12</b>
<b>Annexe 2 The Swedish model</b>	<b>13</b>
<b>Annexe 3 Statistics of agriculture</b>	<b>14</b>
<b>Annexe 4 The Swedish policy-process for biodiversity</b>	<b>15</b>
<b>Annexe 5 The Agriculture of the future (Summary)</b>	<b>16</b>
<b>Annexe 6 Swedish program for Plant Genetic Resources (Summary)</b>	<b>18</b>
<b>Annexe 7 The Sunda meat-project of Retailer ICA</b>	<b>19</b>
<b>Annexe 8 The federation of Swedish farmers LRF</b>	<b>20</b>
<b>Annexe 9 Development of 'wetlands' and 'ponds'</b>	<b>21</b>
<b>Literature</b>	<b>22</b>



# 1 Introduction

Sweden is much larger than we first imagined. Outside the cities it is sparsely populated and quite different from its neighbours Norway and Finland. The southern region, Skåne, traditionally has a strong affinity with Denmark and England. We found people friendly and are generally prosperous, as both men and women work outside the home, everyone speaks good English and we enjoyed the food.

We visited Sweden from 29 November to 3 December 1999 to find out more about their policy on biodiversity. We had twelve meetings with policy makers, people involved in the production chain, interest groups, farmers, education and research (see annexe 1).

Our report is based on our own findings and observations and is not an exact record of the meetings. In the annexes you will find more detailed information about the main aspects of the process of policy-making on biodiversity.

## 2 Swedish Biodiversity Policy

In Sweden biodiversity is seen as overall concept which encompasses agriculture, nature and the environment, which is becoming increasingly common in international forums. This enhances the value of biodiversity and encourages the development of cohesive policy. Nature management policy is divided into three categories according to priority. Each category has its own policy instruments (e.g. regulation, management subsidies, extension programmes).

### 2.1 Main strategy of Biodiversity Policy

Swedish Environmental and Nature policy defines three strategies<sup>1</sup>, each with its own specific consequences for biodiversity:

1. Conservation of biodiversity and cultural heritage in agricultural and open landscapes in forested regions (120 MECU/year);
2. Protection of environmentally sensitive areas from minerals and pesticides (10 MECU/year);
3. Promotion of organic farming (30 MECU/year).

The aims of this policy are elaborated for the Swedish situation:

#### 1. Svensk mjölk från öppna landskap

All the people we spoke to emphasised the importance of extensive livestock farming for the maintenance of open landscape in Sweden. If livestock farmers leave the land the forests take over and the countryside becomes a dark and unattractive place to live.

Inventories show that large numbers of flora occur on extensively managed grasslands (approximately 70% of the 1750 known species). Open landscape is an intrinsic element of Swedish identity. This explains the widely held belief in Sweden that farming is an essential activity and that agriculture does not pose a threat to nature and the environment. The policy for an open landscape is developed in conjunction with the Central Board of Antiquities, this is a government organisation dealing with cultural heritage.

#### 2. Östersjön

When we came to look at the Swedish statistics we began to feel rather uneasy. The Netherlands, on a much smaller area, produces almost four times as many dairy cattle, six times as many pigs and seven times as many poultry. Swedish dairy farmers produce surpluses of 30-49 kg of N per hectare, a fraction of the Dutch surpluses, and even so, the Swedes are just as concerned about their environment as we are.

Their concern is partly explained by the country's location on the Baltic, which serves as a constant reminder to reduce the use of minerals and pesticides. In the west and the east Sweden is bordered by seas which do not have open access to a large ocean. This means that pollution builds up more quickly there than here in the North Sea. The sea is important to the Swedes as a place where they spend their summer holidays and therefore also an important element of the national identity.

#### 3. Ekologisk landbruk

Approximately 10% of the area of agricultural land is organically farmed, most of it in the more extensively farmed north. Only 3% of the farms in the province of Skåne, in the south, are organic. The new objectives published at the end of 1999 aim for 20% of production, rather than area, to become organic by 2005. These objectives are accepted as a matter of course. The Ministry of Agriculture has reserved a budget of 3.770 million Swedish Kroner, approximately 942 million guilders, for the seven years 2000-2006. The supermarket chain ICA aims at 10% sales of organic products for each product group by the end of 2000.

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<sup>1</sup> *Biodiversity in Sweden, Conservation and Sustainable Use of Biodiversity in the Agricultural Landscape in Sweden*, Swedish Board of Agriculture, Jönköping, 1996.



## 2.2 Characteristics of Biodiversity Policy

Within these three strategies for biodiversity we came across the following characteristics:

### A. Public Sensibilities and Perceptions

With *Svensk mjölk från öppna landskap* and *Östersjön* we have already shown two aspects that unite the Swedes into action to protect the environment and nature: open landscape and the sea. A third trigger to Swedish sensibilities is Food Safety (the GMO issue). This and the other two issues could well form the basis for Swedish agricultural policy in the future.

### B. Instruments

In the policy making process the Swedish prefer education and extension instead of restrictions and taxes. Preferably tied in with incentives, education and extension would play a primary role.

### C. Two Markets

We heard people talking about "two markets". By this they mean the individual demand for (agricultural) products and the 'common goods' market (landscape, nature and the environment), with subsidies representing the price society is prepared to pay for these goods.

### D. Agriculture and Forestry

Roughly speaking Sweden has two types of agriculture. Modern, intensive arable farming predominates in the south on the flat lands where it is estranged from nature in a similar way to Dutch agriculture. On the other hand the extensive livestock farming in the north is well integrated into forestry and nature.

We did not learn a great deal about forestry in Sweden. It does appear to be more industrialised than agriculture, causing more environmental problems and is less popular with the public, especially the large companies. According to official statistics, about 50% of the forest area is owned by large companies, but 2/5 of this area is owned by so called ordinary partnerships, i.e. mostly small family companies/farms and furthermore is so much as 30% owned by private citizens. This means that approximately 50% of the forest, preferably in the south and middle of Sweden, is owned and maintained by private citizens, small family companies and farmers. This is an exceptional distribution, compared with other countries, but has historical reasons. It's very common that a small scale farmer has a part of his income from forestry, which may be one reason why parts of the Swedish agriculture is less intensive than in other countries. The forestry business aims to achieve integrated forestry production under the FSC trade mark.

### E. New Basis for Agriculture

There are certain questions the Swedes currently face. Will the northern regions become a museum of extensive agriculture with development at a standstill? Or will agriculture disappear altogether there because it is not a good source of income, and will the land revert to forest? Different questions apply for the intensive farming in the south. Will more technology and capital be pumped in to meet the legal requirements of the EU market, or should agriculture make way for nature and recreation?

These extreme alternatives have little appeal. Is there a third way based on modern nature-oriented farming which would allow agriculture to continue in the north and become more nature based in the south?

## 3 Main experiences and observations

The things we learned from our study trip were in many ways related. The common denominator in Sweden seems to be that they tend to look at the whole picture, both in a physical sense but also in a management, social and historical context. There seems to be much more affinity with the holistic approach.

### 3.1 Unanimity and Consensus

Swedish environmental policy is thus highly integrated. They more readily consider the whole picture with all its related issues, (see for example the ICA-Sunda Meat Project, annexe 7). As a Dutchman you tend to keep looking for dissent and conflicts. It became apparent from all our discussions that there is a deeply-rooted culture of consensus. There are of course differences of interest, but these do not seem to be pushed to extremes in the same way as they are in the Netherlands. One example of this is that the farmers' organisation, the *LRF*, has for some time taken the initiative on agricultural environmental issues. There are of course some groups of reactionary farmers but the great majority wish to solve environmental problems themselves on the farm.

This universal awareness and desire to solve problems means that all parties co-operate and work together from the outset. It also means that there is consensus and unanimity when it comes to carrying out further steps in the process. This all results in a systematic and highly effective approach.

### 3.2 Tapping Into Public Sensibilities and Perceptions

Policy development is based on perceptions strongly rooted in the public consciousness and include those already mentioned: Open Landscape, Sea and Food Safety (no GMOs).

These perceptions encourage feelings of community and harmony and a sense of urgency in a group of very diverse players. This works as a strong trigger in initiating action. Everyone can find ways within their means and within their own area of competence to develop activities which make use of these perceptions. This means that the players complement each other in creating the whole picture.

The result is that these deeply rooted perceptions are capable of generating a large amount of energy and certainly have a greater impact. It would seem worth while considering whether this sort of perception exists in the Netherlands. Perhaps the Wadden Sea would be an example of this, where recent plans to drill for oil met with fierce public opposition. The strong awareness of the Swedish consumer to quality and environmental issues, based on these perceptions, is recognised and exploited both by the supermarket chains and farming and environmental organisations.

### 3.3 Consolidation vs New Activities

Working on the theory that one plus one equals more than two the Swedes look for ways to create added value by harmonising and so strengthening existing plans and activities. It is striking how the Swedes not only invest their energy in thinking up new concepts, but more precisely in this harmonisation and strengthening of their plans and activities. As an extension of this people also seem to be more aware of the historical perspective and developments over time, and are able to convert this to action. In the Netherlands we often talk about the desirability and necessity of these things, but in practice we see very little of them. We do not seem to be really serious about it. This could be one of the reasons why it appears to be so difficult in the Netherlands to find room for biodiversity, organic farming, crop protection, the new nature-management program for agriculture (Programma Beheer), rural development, important environmental policy and heritage landscapes.

### **3.4 Relationship between national and international work**

We noticed that the Swedes were pro-active in linking domestic policy to international policy. This could be because Sweden has just joined the EU, but it could also have more to do with the personal bias of the people we talked to. We were left with the impression that in the Netherlands we should be much more active in harmonising national and international policy on biodiversity.

### **3.5 Emphasis on Education and Extension**

Education and extension seem to be more geared to increasing knowledge about nature and natural processes. This is based on the principle that more knowledge leads to more interest and interest in a subject means that certain desirable values will be more easily internalised and lead to suitable behaviour. This process of internalisation is considered more sustainable than enforced behaviour. Education and extension are directly linked to other instruments (if you want a subsidy, you have to follow a course of study!). This situation serves to illustrate that communication is a very powerful tool. It would seem that by linking education and extension more directly to other instruments in the Netherlands there would be advantages to be gained here too.

### **3.6 Biodiversity in the Agricultural System**

Sweden also seems to have difficulty in actually giving form to biodiversity policy for intensive farming (improvement, breeding, natural predators, soil communities, or they invest less energy in it. These are precisely the areas where biodiversity has decreased, there is less public interest.

If we in the Netherlands can give form to the concept of biodiversity, under the heading "Opportunities for Agriculture", then we could serve as an example to other regions where intensive farming is practised.

## **Annexe 1 Contactpersons in Sweden**

### **Embassy of the Netherlands, Stockholm**

Mr. Albert Wegen, Agricultural Attaché

### **Jordbruksverket, Swedish Board of Agriculture, Jönköping**

Mrs. Agneta Borjeson

Mr. Jan Gustavsson

Mr. Carl Johan Lidén

Mr. Anders Emmerman

### **ICA-retail, Stockholm**

Mrs. Lena Sparring

Mrs. Kerstin Lindvall

### **Swedish Environmental Protection Agency (SEPA), Stockholm**

Mr. Bengt Rundqvist

Mr. Johan Bodegård

### **Ministry of Agriculture, Stockholm**

Mr. Göran Boberg

Mr. Lars Espeby

### **Ministry of Environment, Stockholm**

Mr. Peter Westman

Mr. Jonas Ericson

### **LRF, Federation of Swedish Farmers, Stockholm**

Mr. Sören Persson

Mr. Alarik Sandrup

### **Swedish Society for Nature Conservation, Stockholm**

Mrs. Pernilla Malmer

### **Swedish University of Agricultural Sciences, Svälov**

Mr. Prof. Roland Von Bothmer

Mrs. Eva Jansson

### **Nordic Gene Bank, Alnarp**

Mr. Jens Weibull

### **Länsstyrelsen i Skåne / County Administrative Board of Scania, Malmö**

Mr. Lars Pålsson

Mrs. Jenny Hall

Mr. Hans Nilsson

Mrs. Monica Nordvall

### **Farmers, Skillingaryd and Dalby**

Mr. Håkan Gärskog

Mr. Per Svensson

### **Tekniska Förvaltningen Lund, Lund**

Mr. Paul Eric Jönsson

## Annexe 2 The Swedish model

De structuur van de overheid in Zweden zit iets anders in elkaar dan in Nederland. In plaats van onze hiërarchie: Regering>Ministerie>uitvoering kent Zweden een systeem waarbij een klein Ministerie de hoofdlijnen en kaders uitzet en heel politiek werkt (in Nederland te vergelijken met de Directie Kabinet) en een grote uitvoerende Board of Agriculture die ook aan de regering verantwoordelijkheid verschuldigd is.

De werkprocedure is: Governements Bill >> Board>> verdere invulling door countyboards.

In alle tussenfasen worden contacten onderhouden met NGO's en marktpartijen.

De klassieke hiërarchie staat minder onder spanning door waarschijnlijk meer gelijkgerichtheid.

Het is ook geen interactief beleid zoals bij ons. Door de grotere onderlinge eensgezindheid voldoet het nog om met de standaard belangenorganisaties te praten. Deze Boards hebben nationaal en regionale onderdelen. In de regio's (24 county-boards) hebben de Boards taken als Regiodirecties, Laser, Bureau Heffingen en de oude Consulentschappen.

Veel van het uitvoerende beleid ligt echter bij de gemeenten.

## Annexe 3 Statistics of agriculture

We wisten dat in Zweden slechts 10% van het areaal landbouw was. Dat was voor ons een reden om onze studiereis vooral te richten op die 10 % landbouw. Maar de aandacht voor biodiversiteit in de Zweedse landbouw krijgt een andere lading door het onderscheid in de extensieve landbouw in het noorden en de intensieve landbouw in het zuiden van Zweden.

	Zweden*	Nederland**
Oppervlakte (miljoen ha)	41,1	3,0
Aantal inwoners (miljoen)	8,8	16,0
Landbouwareaal (miljoen ha)	3,0 (7,5%)	2,0 (60%)
Aantal landbouwbedrijven	88.378	120.000
Gewassen (miljoen ha)		
- kunstweide	1,0	
- voedergraan	0,89	
- broodgraan	0,37	
- braak	0,20	
Melkquotum (mld kg)	3,3,	11,0
Aantal melkkoeien (miljoen)	0,47	2,0
Aantal runderen (miljoen)	1,7	3,5
Aantal varkens (miljoen)	2,4	14
Aantal kippen (miljoen)	12,7	100
Import uit NL (mld SEK)	4,6	
Export naar NL (mld SEK)	0,28	

\* Bron: *Facts about Swedish agriculture, 1996, Jordbruksverket*

\*\* Bron: *CBS, Landbouwtelling*

## Annexe 4 The Swedish policy-process for biodiversity

### Organisations, involved with biodiversity

Within the Swedish Government the *Ministry of Environment* is responsible for coördinating biodiversity issues, including the Convention on Biological Diversity. Several other ministries like the *Ministry of Agriculture* are however responsible for implementing the Convention in their respective sphere of activity.

The *Swedish Environmental Protection Agency (SEPA)* has the role of coordinating and giving a lead in the efforts to preserve biodiversity. Other important central agencies in this context are the *National Board of Forestry*, the *Central Board of National Antiquities* and the *National Board of Agriculture*.

The *Board of Agriculture* is responsible for the implementation of the Common Agricultural Policy (CAP) as well as for agro-environmental programmes like those on pesticides and nutrients, sanitary and phytosanitary issues, animal welfare and veterinary services. At the regional level there are 21 counties with *County Administrative Boards* responsible for environmental and agricultural issues and programs including biodiversity.

### Implementation process

The headlines of the implementation process in Sweden of the Convention on Biological Diversity is summarized here. Sweden ratified the *Convention on Biological Diversity* in 1993. In 1994 a strategy for biodiversity was adopted by the Parliament. In 1994 the Swedish Environmental Protection Agency (SEPA) finished the *country study on Biological Diversity in Sweden*. This study is carried out in close cooperation with a number of sectorial agencies including the Swedish Board of Agriculture. The Board wrote the draft of the chapter on biodiversity in the agricultural landscape. The broad approach that was adopted was aimed at developing a common view of existing problems relating to biodiversity in Sweden. Scientific institutions were also involved, ensuring that the report was based as far as possible on scientific evidence.

The next step was to prepare action plans on a sector-by-sector basis. This task was delegated to the same authorities that had prepared the country study. The work resulted in *five Action Plans* in 1995, one more comprehensive and four sectorial plans covering agriculture, forestry, fisheries and building and physical planning. These five plans are not compiled at the Government level. Instead they form together Sweden's national action plan.

An important difference between the process of drafting the action plans and the procedure used for the country study was that each authority was now individually responsible for drawing up an action plan for its own sector. It was the task and responsibility of each sectorial agency to consider what measures needed to be taken in its sector to minimise the adverse impacts on biodiversity and contribute instead to achieving the objectives of the Convention. This can be seen as a step toward implementing the explicit environmental policy of introducing full sectoral responsibility for the environment. In the past, the environmental authorities have often defined what measures are required in different sectors; now it was the sector authorities themselves that formulated the action plans.

In order to get advice and secure support for the proposals we set up a reference group with representatives from the Swedish Environmental Protection Agency, the University of Agricultural Sciences, the Federation of Swedish Farmers, the Swedish Society for Nature Conservation and WWF. The five agencies also formed a co-ordinating group for the work. The action plan was delivered to the Ministry of Agriculture in 1995. In 1997 the Government and the Parliament gave their support to the proposals and decided that the implementation for the proposed measures, which already had started, should continue and be completed.

## Annexe 5 The Agriculture of the future (Summary)

The Swedish Environmental Protection Agency (SEPA) presented in the study “The Agriculture of the future” the weaknesses and opportunities of agriculture in 2021.

The agricultural sector in Sweden is currently saddled with practices that are not sustainable in the long term. Various problems need to be tackled, for example:

- Soil fertility is being put at risk by one-sided crop production on many farms, one of the problems associated with this being limited recycling of organic matter into the soil.
- Too small an area of pasture-land is being managed in ways which preserve biodiversity and other natural and cultural assets.
- Phosphorus consumption is unacceptably high, given the fact that this element is a finite and irreplaceable resource which the whole world had to share.
- Air pollution emissions, such as ammonia, methane and carbon dioxide, need to be reduced.
- Inputs of cadmium-contaminated artificial fertilisers, combined with cadmium from air pollution, are so high that levels of this toxic metal are rising steadily in arable soils.
- Phosphorus and nitrogen compounds are being leached from farmland, causing eutrophication of lakes, rivers and coastal sea areas.
- Farm machinery relies on finite reserves of fossil fuels, as does the manufacture of chemical fertilisers.

### The future

In the study a scenario for agriculture in 2021 is presented, which envisages a number of changes designed to achieve various objectives relating to greater sustainability. These include the following:

- Less land will be used to grow cereals, making room for more forage grasses and legumes (ley farming) and willow crops for energy purposes. Ley farming will help improve the organic content of the soil and reduce leaching of nitrogen and phosphorus. Energy crops will be able to meet farm's own energy needs, as well as supplying 20 TWh to the wider society.
- Some livestock sectors (cattle and pigs) will become less important on the plains of southern Sweden, but more important in central Sweden where there is currently a heavy predominance of grain production. Dairy output in this region will also be increased, among other things reducing the distances produce needs to be transported to supply the major cities. With a more even spread of arable and livestock farming across the country, there will be less need for artificial fertilizers for cereal growing; this will be due partly to greater precision in their use. At the same time, nutrient leaching will be reduced in areas where livestock numbers are currently high.
- The number of meat-producing animals (cattle and sheep) put out to graze on seminatural pastures should be doubled 25 years from now. Grazing livestock are the only known means by which Sweden will be able to meet its obligations under the Convention on Biological Diversity. Beef, sheepmeat and milk will be produced largely without inputs of chemical fertilisers or pesticides, using organic methods. On the other hand, grain for human consumption and for pig and poultry feed will be grown using developed and refined variants of existing farming methods, since arable land will need to be farmed quite intensively if the area available is to suffice for both increased production of energy crops and a somewhat higher output of food.

### Obstacles

Sustainable agriculture is unlikely simply to happen, merely because it is a good thing from an environmental and resource point of view. In particular, there needs to be an overhaul of the EU's Common Agricultural Policy (CAP), which in many respects is obstructing progress towards sustainability and, in certain areas, even encouraging change in the very opposite direction. The Swedish Environmental Protection Agency (SEPA) wants to see the Common Agricultural Policy (CAP) reformed to incorporate the following elements:

- Management by objectives. An overall objective should be sustainable agriculture, which includes producing healthy foods, contributing to the welfare of the countryside, conserving resources, using ethical livestock production methods, and meeting the requirements defined by long-term environmental goals.
- Support schemes under the CAP which help to achieve these goals.



- Agreements with farmers on payments for environmental measures relating to public goods (e.g. landscape and biological diversity).
- Resources for research and development.
- Integration of agriculture and environmental protection, according to the polluter pays principle.

Instead of general subsidies, there is a need for support which ensures that pasture-land continues to be grazed. Otherwise, many plant species which are already under pressure will be put at even greater risk. In addition, grazing cattle need to be managed more efficiently, to compete with low meat prices.

Price support and area payments for cereals mean there is little incentive to increase the area used for grasses and legumes. Given that cereal production is so intensive as to be unsustainable, it would be better to support ley farming as a means of restoring the fertility of arable land. If ley farming and willow production are to expand, energy policies must be designed so that farmers are paid for the environmental benefits they provide by supplying renewable substitutes for fossil fuels. A high carbon dioxide tax, which has long been discussed within the EU, would be a step in the right direction.

## **Annexe 6 Swedish program for Plant Genetic Resources (Summary)**

The priority activities in the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture is the setting-up of strong National Programmes. National Programmes are the foundation of regional and global efforts in this area. They are also a means to promote international co-operation on access to genetic resources and fair and equitable sharing of the benefits arising from their use. According to the Global Plan of Action, the aim of the National Programmes shall be to contribute to national development, food security, sustainable agriculture and the preservation of biodiversity through the conservation and use of plant genetic resources.

### **Aim of the program**

A National Programme should include, collection, inventorying, characterization, research and development, information, conservation, and utilization of plant genetic resources, as well as links between these areas. Data regarding the material shall be made available through publications and databases. Education and research on conservation and sustainable utilization of plant genetic resources shall be stimulated. The programme should also promote cooperation between institutions and organisations concerned in the country, and coordinate national activities. The programme should lead to the development of national plans of action and long-term strategies.

### **Relation *ex situ* and *in situ* conservation**

The Swedish National Programme is proposed to include both Swedish material conserved *ex situ* in a seed gene bank at the Nordic Gene Bank, as well as older Swedish species/varieties conserved *ex situ* by growing at open-air museums, botanical gardens or elsewhere throughout the country. Certain species need to be preserved *ex situ* by growing because they reproduce vegetatively, like fruit trees and many ornamental plants. In other cases, the material may need *ex situ* conservation by growing for reasons of cultural heritage and education. The *in situ* conservation of cultivated plants and their wild relatives is also important, and is proposed to be included in the programme.

### **Contents of the program**

Sweden's National Programme for the conservation and utilization of plant genetic resources can be divided into five areas of activity with different tasks and agents. The areas of activity are: conservation, utilization, research and development, information, and international efforts.

## Annexe 7 The Sunda meat-project of Retailer ICA

De supermarktketen ICA heeft ca. 2.120 winkels in Zweden. Consumenten in Zweden zijn erg begaan met milieu vraagstukken en ICA speelt daar op diverse manieren op in. Een doel van ICA is bijv om eind volgend jaar 10 % van de producten biologisch te laten zijn. Een ander voorbeeld is het Sunda meat project. Het betreft een eigen productlijn van ICA. Biodiversiteitdoelen en kwaliteitsdoelen van vlees worden hierin gecombineerd. Deelnemende boeren moeten in ieder geval aan twee voorwaarden voldoen:

- Ze moeten deel nemen aan een biodiversiteitsprogramma van Zweedse overheid. In het beboste noorden bevat juist het open landschap de meest waardevolle biodiversiteit. Traditionele landbouwpraktijken houden dit open landschap in stand. Voor de instandhouding van het landschap heeft de Zweedse overheid een speciaal subsidieprogramma ontwikkeld.
- Verder moeten de boeren zich houden aan een aantal productie eisen om de gewenste hoge kwaliteit vlees te kunnen garanderen.

Naast de overheidssubsidie ontvangen de boeren van het ICA een hogere prijs voor hun vlees. Het aldus geproduceerde vlees wordt vers verkocht, ook in de vorm van gehaktballen. Op basis van kwaliteitsvergelijkingen door de consument blijkt het vlees aantoonbaar beter van kwaliteit. De vraag naar Sunda-meat blijkt hoger dan dat wat geleverd kan worden. ICA is al 5 jaar bezig met de ontwikkeling van dit concept. Ondanks het feit dat het nog steeds een klein programma is met hoge ontwikkelingskosten, is het strategisch erg van belang in verband met de goodwill die het oplevert bij de consumenten.

## **Annexe 8 The federation of Swedish farmers LRF**

De landbouworganisatie LRF kent boeren, coöperaties en veel buitenlui als lid. Hoewel landbouw in Zweden economisch gezien van beperkt belang is, wordt de landbouworganisatie, de LRF beschouwd als een van de machtigste organisaties (haar voorman rekent men tot de 5 machtigste personen van Zweden). De LRF heeft de reputatie dat haar officiële standpunt over milieuvraagstukken, vaak verder gaat dan het overheidsbeleid. Een situatie die we ons in Nederland nauwelijks kunnen voorstellen. Hieraan ligt een bewuste strategie ten grondslag om het vertrouwen van de Zweedse bevolking en consument in de Zweedse landbouw te krijgen en te behouden. Sleutelwoorden van die strategie zijn : 'pro-actief', 'voorop lopen', 'accepteer het probleem en probeer het op te lossen'. Met deze strategie focust de landbouworganisatie zich op die 15 % van de boeren die voorop willen lopen. Als die zich er achter scharen dan volgt de rest van zelf, is de filosofie. Het bestuur van de LRF accepteert daarmee een structureel spanningsveld met de overige 85% van haar leden.

## Annexe 9 Development of 'wetlands' and 'ponds'

In het zuiden van Zweden, de streek met intensieve landbouw, is men gestart met het herstel of de ontwikkeling van 'wetlands' en 'ponds'. Directe aanleiding is de uitspoeling van stikstof.

Maatregelen gericht op de reductie van de uitspoeling van stikstof en fosfaat bleken onvoldoende rendement te sorteren. Reden om te zoeken naar aanvullende maatregelen. Herstel van wetlands lijkt een van de succesvolle aanvullende maatregelen. Uitgaande van de huidige afwateringssituatie en aansluitend bij het oorspronkelijke karakter van het gebied van een paar honderd jaar geleden identificeert men locaties voor de aanleg van vijvers. De te graven vijvers (van 0,5 - 2 ha) worden gekoppeld aan de bestaande afwateringskanalen. In de vijvers wordt het drainagewater van de landbouwpercelen een aantal dagen vastgehouden. Via natuurlijke processen, waarin allerlei organismen een rol spelen, vindt er een denitrificatie plaats. Bovendien blijken in deze vijvers een variëteit aan plantaardige en dierlijke soorten voor te komen, waaronder ook zeldzame soorten. Kortom veel vliegen in een klap:

- herstel van oorspronkelijke landschap;
- langer vasthouden van het water;
- minder stikstof naar de zee;
- meer soorten organismen;
- versterking van het ecosysteem.

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