STANDARD SUMMARY PROJECT FICHE

1. Basic Information
   1.1 Désirée Number: ES01.05.03
   1.2 Title: Purchase of Equipment for Foundation of Animal Waste Rendering System in Estonia
   1.3 Sector: Agriculture
   1.4 Location: Estonia (Järvamaa)

2. Objectives

   2.1 Overall Objective:
   Waste rendering system in Estonia corresponds to the EU requirements.

   2.2 Project purpose:
   Rendering plant and collecting points function according to the EU requirements.

   2.3 Accession Partnership and NPAA priority

      Accession Partnership
      3.2Medium-term
      Agriculture. /.../implement animal waste treatment system /.../
      Environment: continue to the implement legislation according predefined timetable, in particular in air, waste management, chemicals and radiation protection, nature protection, water sector and industrial related legislation.

      NPAA 2001 Estonia Part III

      Chapter 7: Agriculture

      7.1. Internal Market
      7.1.1. Veterinary and Food Sector

      Objectives for 2001 in Veterinary sector: Measures extending to several sectors

      The regulation of animal waste handling, matching the requirements stated in the regulation issued by the Minister of Agriculture, “The Rules for Attestation of Companies Handling Waste of Animal Origin, the Veterinary Requirements for Such Handling and the Classification of Animal Waste”, arising from § 19 of the Infectious Animal Disease Control Act, is continued. In 2001, the landfill sites for animal waste have to be brought into conformity with the requirements stated in the regulation. Since 01.01.02, animal waste can only be disposed of in landfill sites, attested by Veterinary and Food Board.
Objectives for 2002-2003

The third stage of the system for handling animal waste is launched, providing for:
1. Development/construction of a system for handling waste of animal origin (01.04.2002 – 01.04.2003);
2. Configuration of the system for handling waste of animal origin (01.04.2003 – 01.10.2003);
3. Training for staff (01.08.2003 – 01.10.2003);

2.4 Contribution to National Development Plan
Not applicable

2.5 Cross Border Impact
Not applicable.

3. Description

3.1 Background and justification:
In Estonia, the collection and treatment of animal waste can be defined as a great problem.

The overriding goal for rendering is to prevent environmental pollution, including surface water, ground water, and air, as well as to cut and minimise the spread of disease-causing bacteria and viruses. With the increased outbreaks of BSE and FMD in several European Union member states the Government of Estonia has taken full commitment to establish the rendering system of animal wastes in Estonia to prevent the disease outbreaks in Estonia.

It is estimated that currently 25,000 tons of animal waste is disposed in the environment. There are more than 125 burial places in the forest all-over Estonia. The burials cause especially in the winter season, where the soil is frozen, large problems. In many cases the local deponi is used, it creates new problems (rats and other pests). Also the border control is a source of problems, all mammalian animal waste from food from airplanes, ships, train, trucks and cars, are collected and delivered together with traditional waste to the local deponi. Establishing a proper system of rendering animal waste will establish a clear framework and enable to better handle the risks associated with all types of waste of organic origin.

In the group including dead (fallen) animals and non-edible offal, 1.5-2% of the waste products are designated “high risk,” i.e. they are infected with pathogens. These waste products constitute a potential danger for humans and animals. Nowadays with the outbreaks of BSE in several countries, Estonia has to be ready to cope with the problem if it arises. Also, absence of possibilities for appropriate treatment of animal wastes can lead to a serious setback for agriculture in Estonia.

According to EU requirements the establishment of rendering system for wastes of animal (organic) origin is one of the prerequisites for a country dealing with animal husbandry and processing of products of animal origin. State authorities should ensure proper
rendering of animal waste belonging to the high-risk (HRM) and special risk (SRM) category, while leaving the low risk animal waste to be processed by the entrepreneurs, as there exist marketable products produced of the latter. The volumes of animal waste of an increased risk potential are projected to be around 6,000-10,000 tons annually, the rendering of which represents a pure cost and does not lead to any positive business gain. There will not exist a saleable final product for rendering of HRM and SRM as depending on the technology today. The waste will be incinerated without pre-processing or after processing it to meat-and-bone meal that will be incinerated. It is possible that emerging technologies will allow to process bio diesel or other products with market value from the meat-and-bone meal.

In 1999 the GoE contracted a private company to carry out the feasibility study. The conducted feasibility study has lead to a detailed action plan. The site of the rendering plant has been selected in co-operation with local authorities in Järvamaa.

The site development will begin in summer 2001 and the tendering for the designing and construction works will begin in September 2001.

3.2 Linked activities:
Not applicable

3.3 Results:

1. Equipment for treatment of high- and special-risk materials installed in rendering plant;
2. Wastewater treatment and air cleaning equipment installed.

3.4 Activities:

1. Procurement of equipment for treatment of high- and special-risk materials for rendering plant;
2. Procurement of equipment for waste water treatment and air cleaning.

4. Institutional Framework

Disposal of animal wastes as a by-product of agricultural production is under the control of Veterinary and Food Board (Ministry of Agriculture). Environmental Inspectorate (Ministry of Environment) controls environmental impact of the a.m. waste disposal.

The Ministry of Agriculture will be responsible for the preparation of the technical specifications for the equipment\(^1\) and for the overall technical implementation of the project. Tendering and contracting will be carried by the CFCU in Estonia.

Ministry of Agriculture has after considerations decided upon the ownership question of the plant. The rendering plant will be a public enterprise (100 % state ownership of the plant and operations). As this is a non-profit enterprise there is no private sector initiative. Therefore, the project should receive support from Phare, instead of Sapard,

\(^{1}\) For detailed description of equipment to be procured please see Annex 7.
in order to strengthen the regulatory infrastructure needed to ensure compliance with the Veterinary and Food Safety Acquis and to support alignment with EU norms. As the environmental component of the project is also an integral part of the project and small in size, it should be supported by Phare, instead of Sapard.

5. **Detailed Budget (in million Euro)**

<table>
<thead>
<tr>
<th></th>
<th>Phare Support</th>
<th>National Co-financing*</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Investment</td>
<td>Institution Building</td>
<td>(=I+IB)</td>
</tr>
<tr>
<td>Equipment for treatment of high-and special-risk materials</td>
<td>1.8</td>
<td></td>
<td>1.8</td>
</tr>
<tr>
<td>Equipment for Waste water treatment and air cleaning</td>
<td>1.2</td>
<td></td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
<td></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

Ministry of Agriculture will provide financing from State Budget for the preparatory works of the project (i.e. preparation of detailed project documentation, environmental impact assessment). State will finance also site development and construction\(^2\) of the plant. Ministry of Agriculture will also finance establishment of collecting points and procurement of containers and trucks.

Ministry of Agriculture will hire project manager for the implementation of the project and provide co-financing for the procurement of the equipment as well as for the training of staff.

6. **Implementation Arrangements**

6.1 Implementing Agency

The CFCU is the Implementing Agency responsible for tendering, contracting and accounting. Responsibility for the technical preparation, implementation and control will remain with the Ministry of Agriculture.

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**CFCU:**

Marko Rillo  
Director of the CFCU

\(^2\) It has been foreseen that Estonia will finance from State Budget site development and constructions work in total 1,03 MEUR.
1) **Project Steering Committee**

A Steering Committee will be set up, chaired by the Deputy Secretary General of the Ministry of Agriculture. The members of the Committee will be officials of Ministry of Agriculture and Ministry of Environment and representatives from the Ministry of Finance, EC Delegation and CFCU.

Project Steering Committee will meet at the beginning of the project to discuss and approve the project activities and at least once in 3 months to discuss the progress of the project.

**Project Manager**

Project manager will ensure the timely and satisfactory performance of the beneficiary institution and will be responsible for the coordination of project activities.

6.2 Twinning

Twinning is not foreseen

6.3 Non-standard aspects

Phare funds will be contracted strictly following the DIS Manual rules.

6.4 PHARE Supply Contracts:

1. Equipment for treatment of high- and special-risk materials 1,8 MEUR
2. Equipment for wastewater treatment and air cleaning 1,2 MEUR

Total Phare support: 3.0 MEUR

7. **Implementation Schedule**

7.1 Start of tendering/call for proposals
   September 2001

7.2 Start of project activity
   January 2002

7.3 Project Completion
   December 2002

8. **Equal Opportunity**

Women’s participation in project will in no way be restricted and equal opportunities will be guaranteed for both men and women.

9. **Environment**
High and special risk animal waste constitutes a potential danger for humans and animals. Approximately 80% of the animal waste products are currently disposed of in former gravel pits or forests, local deponi or are buried without any supervision or control.

Problems related to waste disposal constitutes a latent danger of pollution, both of surface water and ground water, and additionally, as already mentioned the risk of disease for both humans and animals.

The problem also exceeds borders of Estonia as all rivers and streams flow into the Baltic Sea.

An environmental study will be carried out after a firm decision regarding the location of the plant is made. Technology suppliers are required to confirm that the technology supplied by them follow all restrictions and requirements posed by the EU environmental regulations.

10. Rates of return

• Financial rate of return

The project has not been seen as a profit-making project as the range of marketable products as an output of rendering of high and special risk material is very limited, except for technical fat. Though the volumes of extracted fat are too low to cover the operating and financial costs of the project. The sales proceeds from technical fat cover approximately 25% of total operating costs of the plant.

• Economic internal rate of return: at least 0

Compensation payments system will be used to finance the operations of the rendering plant.

• Feasibility studies. Feasibility study by Ole Ulso Engineering has been carried out in 1999. The study has been modified to reflect processing of lesser amount of animal waste (HRM and SRM only) and needs further work to determine changing legislative environment in EU and Estonia.

11. Investment criteria

11.1 Catalytic effect:
Phare funds are essential for establishing animal waste rendering system in Estonia as otherwise the state is not able to finance the establishment of the system and Estonian accession to EU will be delayed. The project is vitally important from the point of view of agricultural development, food processing and environmental aspects. Outbreaks of animal diseases in EU show the clear need for a rendering plant in Estonia.

11.2 Cofinancing:
Phare funds will be supplemented by Estonian State budget funds. Estonia will co-finance the purchasing of equipment for the rendering system in the framework of the project with 0,96 MEUR.
11.3 Additionality:
Phare funds do not displace other financial resources. In the project in addition to Phare funds bi-lateral funding as well as state budget funds are used.

11.4 Project readiness and Size:
Project will be ready for implementation as feasibility studies are being updated and the place for rendering plant has been determined. Feasibility studies will be completed before the actual start of the project.

11.5 Sustainability:
Investment is sustainable, as rendering system will be set up in full compliance with EU norms. Project has positive environmental impact, as the risk for the misuse of infectious animal waste will be reduced considerably. Estonian government will ensure financial sustainability of the project by establishing regulations for compulsory compensation payments according to the principles of “waste premium”. Maintenance costs will be covered via the payments of “waste premium” that will be paid by the farmers and collected by a respective supervising administrative institution. So there will be no further burden for the state budget.

Government of Estonia will be committed to the establishment and maintenance of the rendering system in order to tackles this very important sector for EU accession.

11.6 Compliance with state aids provisions
State aids provisions of the Europe Agreement will be respected and Phare DIS rules will be applied to all PHARE investments.

11.7 Contribution to National Development Plan
Not applicable

12. Conditionality and sequencing
Activities to be carried out before the commencement of the project:
1. Government of Estonia will foresee funds from 2002 budget;
2. Feasibility study completed;
3. Environmental impact assessment report ready
4. Preparation of detailed project documentation;
Annexes to project Fiche
1. Logical framework matrix in standard format
2. Detailed implementation chart
3. Contracting and disbursement schedule by quarter for full duration of programme (including disbursement period)
4. Reference to feasibility / pre-feasibility studies. For all investment projects, the executive summary of the economic and financial appraisals, and the environmental impact assessment should be attached
5. List of relevant Laws and Regulations
6. Reference to relevant Government Strategic plans and studies (may include Institution Development Plan, Business plans, Sector studies etc)
7. Detailed description of equipment to be procured.
### LOGFRAME PLANNING MATRIX FOR
**Purchase of equipment for foundation of animal waste rendering system in Estonia**

<table>
<thead>
<tr>
<th>Project purpose</th>
<th>Objectively verifiable indicators</th>
<th>Sources of Verification</th>
<th>Assumptions and Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rendering plant and collecting points function according to the EU requirements.</td>
<td>• The system is functioning and wastes of animal origin (high and special risk) are handled in accordance with EU directives</td>
<td>• Ministry of Agriculture and Ministry of Environment control reports</td>
<td>• Necessary financial and human resources available • Functioning rendering units</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Results</th>
<th>Objectively verifiable indicators</th>
<th>Sources of Verification</th>
<th>Assumptions and Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Equipment for treatment of high- and special-risk materials installed in rendering plant; 2. Wastewater treatment and air cleaning equipment installed.</td>
<td>1-2. Rendering plant meets EU requirements set with Directive 90/667/EEC</td>
<td>1.-2. Project reports prepared by the Ministry of Agriculture and on the spot controls carried out by Ministry of Agriculture</td>
<td>• Collecting points established • Containers and trucks procured • Staff trained</td>
</tr>
<tr>
<td>Activities</td>
<td>Means</td>
<td>Cost</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>1. Procurement of equipment for treatment of high- and special-risk materials in rendering plant;</td>
<td>PHARE supply contract</td>
<td>1.80 MEUR</td>
<td></td>
</tr>
<tr>
<td>2. Procurement of equipment for waste water treatment and air cleaning.</td>
<td>PHARE supply contract</td>
<td>1.20 MEUR</td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
<td><strong>Total project cost:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHARE</td>
<td>3.00 MEUR</td>
<td></td>
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<tr>
<td></td>
<td>Co-financing:</td>
<td>0.96 MEUR</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total:</strong></td>
<td>3.96 MEUR</td>
<td></td>
</tr>
</tbody>
</table>

| Preconditions                                                            |
|--------------------------------------------------------------------------|-----------------|
| 1. Government of Estonia will foresee funds from 2002 budget;            |
| 2. Feasibility study completed;                                           |
| 3. Environmental impact assessment report ready;                         |
| 4. Preparation of detailed project documentation.                        |
## ANNEX 2
### TIME IMPLEMENTATION CHART

**Project N°: ES**  
**Project Title: Purchase of equipment for foundation of animal waste rendering system in Estonia**

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation of detailed project documentation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site development and building</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tendering and installation of equipment for processing of high- and special-risk materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tendering and installation of equipment for Waste water treatment and air cleaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishing 2 collecting points</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procurements of trucks and transport containers</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### CUMULATIVE CONTRACTING SCHEDULE  (by quarters)  

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td><strong>Investment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Equipment for treatment of high- and special-risk materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>2. Equipment for waste water treatment and air cleaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**ANNEX 3a**
**CUMULATIVE DISBURSEMENT SCHEDULE (by quarters)**

| Investment                                                                 | 2001     |          |          |          | 2002     |          |          |          | 2003     |          |          |          | TOTAL    |          |          |          |          |
|---------------------------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1. Equipment for treatment of high- and special-risk materials            |          |          |          |          |          |          |          |          |          |          |          |          | 0.24     | 0.6      | 0.6      | 1.2      |
| 2. Equipment for waste water treatment and air cleaning                   |          |          |          |          |          |          |          |          |          |          |          |          | 0.24     | 0.6      | 0.6      | 1.2      |
| **TOTAL**                                                                 | 0.24     | 0.6      | 1.2      | 3.0      | 0.24     | 0.6      | 1.2      | 3.0      | 0.24     | 0.6      | 1.2      | 3.0      | 3.0      | 3.0      | 3.0      | 3.0      | 3.0      |
ANNEX 4

REFERENCE TO FEASIBILITY/ PRE-FEASIBILITY STUDIES

Project N°: ES
Project title: Purchase of equipment for foundation of animal waste rendering system in Estonia

Project N°: EST 0064
Project title: Feasibility study “Rendering in Estonia”
Remarks: Financed by Danish Ministry of Foreign Affairs

Project N°:
Project title: Financial review of feasibility study “Rendering in Estonia”
Remarks: Performed by PricewaterhouseCoopers
ANNEX 5

LIST OF RELEVANT LAWS AND REGULATIONS\(^3\)

Project N°: ES  
Project title: Purchase of equipment for foundation of animal waste rendering system in Estonia

1. Waste Act (RTI 1998, 57, 861)


3. Regulation on classification of animal waste, veterinary requirements for handling of animal waste and the procedure for approval of enterprises that handle animal waste.

Relevant EC directives:

\(^3\) This annex is optional.
ANNEX 6

LIST OF GOVERNMENT STRATEGIC PLANS AND STUDIES

Project N°: ES
Project title: Purchase of equipment for foundation of animal waste rendering system in Estonia

NEAP
National Environmental Action Plan

Chapter 5.1 Waste recycling and sustainable use of secondary raw materials

5.1.3. Feasibility study on utilisation options for animal by-products and wastes;
5.1.4. Feasibility study for rendering plant for animal by-products and wastes;
ANNEX 7

DETAILED DESCRIPTION OF EQUIPMENT TO BE PROCURED

Project N°: ES
Project title: Purchase of equipment for foundation of animal waste rendering system in Estonia

RAW MATERIAL SECTION
RAW MATERIAL SILO 50 M3
DRAIN SECTION FOR SILO
VERTICAL CENTRIFUGAL PUMP FOR DRAIN
PLATFORM FOR SILO
PRE-BREAKER
FRAME FOR CRUSHER
PUMP FEED SCREW
PUMP PIPING
BLOOD TANK 5000 LTRS.
BLOOD PUMP
CYCLONE
FRAME FOR CYKLONE

COOKING/PRESSING:
DRY MELTER HM 5000
PROCESS CONTROL FOR ONE COOKER
AUTOMATIC MOISTURE CONTROL
LOAD CELL SYSTEM
DISCHARGE VALVE DN400
PLATFORM FOR COOKERS
PERCOLATING TANK
PLATFORM FOR PERCOLATING TANK
SCREW CONVEYOR Ø230
METAL DETECTOR
SCREW CONVEYOR Ø230
SCREW CONVEYOR Ø230
SCREW CONVEYOR Ø230
DOSING SCREW Ø230
SCREW PRESS HM2000
FRAME FOR PRESS
SCREW CONVEYOR Ø230

TALLOW HANDLING:
FAT FILTRATOR
INLET TANK FOR PUMP
FAT PUMP
TALLOW TANK WITH AGITATOR 5 M3
DECANTER FEED PUMP
DECANTER
FRAME FOR DECANTER
INLET TANK FOR PUMP
TALLOW PUMP CENTRIFUGAL
TALLOW STORAGE TANK - 30 CBM
CONTROLS FOR TALLOW TANK 30 CBM
PLATFORM FOR FAT STORAGE TANK

CAKE HANDLING:
COOLING SCREW Ø400
COOLING FAN/CYCLONE
LOADING SCREW CONVEYOR Ø300

ANCILLARY EQUIPMENT
DUCTING
AIR COOLED CONDENSER HM3000
NON CONDENSEIBLE GAS FAN
SET OF PIPES
STEAM HEADER
ERECTION MATERIAL
EL-PANEL/CONTROLS
SUPPLY OF COMPRESSED AIR
STEAM BOILER PLANT
EQUIPMENT FOR COLLECTING POINTS
CONTAINERS AND TRUCKS
EQUIPMENT FOR WASTE WATER TREATMENT
EQUIPMENT FOR AIR CLEANING (BIOFILTER)