1. Basic Information

1.1 Désirée Number:

1.2 Title: Support to the Alignment of Turkey to the EU Veterinary Acquis.

1.3 Sector: AG

1.4 Location: Turkey

2. Objectives

2.1 Overall Objective(s)

The overall objective is to support the Turkish Ministry of Agriculture in aligning to the relevant EC standards of veterinary legislation and activities in the fields of animal health, veterinary public health and animal welfare.

2.2 Project Purposes

- To improve the capability of the competent authority to carry out border control, epidemiological surveillance and produce high quality vaccines necessary to control and eradicate ‘OIE List A and B’ animal diseases.

- To improve the public health measures taken by the State Veterinary Service.

- To develop the concept of animal welfare in Turkey.

2.3 Accession Partnership (AP) and National Plan for the Adoption of the Acquis (NPAA)

AP:
The short term priority of the AP (section 4.1) is to ‘establish an appropriate alignment strategy for veterinary and plant health Community legislation with first priority the harmonization of legislation to combat animal and plant diseases and upgrade enforcement capacity, in particular of laboratory testing, inspection arrangements and establishments.’

The mid-term objective of the AP (section 4.2) is to ‘complete preparations for the acquis in agricultural and rural development policies and modernise food-processing establishments (meat, dairy processing plants) to meet EU hygiene and public health standards and further establishment of testing and diagnostic facilities’.

NPAA:
The main relevant sections of the NPAA making reference to this project are summarised below:

- **4.8.2 Agricultural Products** (Animal Husbandry) states that the ‘efficiency of the combat against animal diseases and harmful organisms will be improved’;

- **4.8.3 Animal Health** (Final Objective) states that ‘It is planned to adopt the arrangements on the combat against zoonoses and epidemic animal diseases within the framework of developing a strategy on harmonization with the veterinary legislation of the Community. Moreover, the developments that take place within the EU acquis will be monitored continuously and

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1 Ministry of Agriculture (MARA) and its services, in particular the General Directorate for Protection and Control (GDPC)
necessary measures will be taken for harmonization.’ And (Objective, Strategy and Future Applications) states that ‘the main objective is rapid control and eradication of the diseases that create major problems within Turkey’s animal sector. Attainment of the objectives in this regard requires a more efficient utilization of combat services. To this end priority is given to; the reorganization of the structure of veterinary services, the establishment of a computer system that will ensure fast access to reliable information for the services of combat against diseases, …In this respect, the following action plan shall be executed: Increasing efficiency in the diagnosis of diseases; Development of emergency plans on combat against contagious diseases; Supply of sufficient amount and quality of vaccines; Ensuring an effective coordination; Monitoring and Assessment’.

4.8.3. Animal Identification System (Final Objective) states that they are ‘to ensure the access of veterinary controls to farm and animal registrations, to establish an animal movement control system, and to set up and implement a computer system for the registration and transfer of the animal identification data’.

The full details of the related part of the NPAA are available in Annex IV.

2.4 Contribution to National Development Plan

Turkey has not yet been invited by EU to prepare a National Development Plan.

3. Description

3.1 Background and justification

The TAIEX office has reviewed in October 2001 the veterinary system of Turkey. The final report contains a number of recommendations covering the different sections of the system notably, veterinary legislation, animal health, animal welfare, zootechnics, veterinary public health, veterinary information systems and veterinary border inspection. The report and its conclusions have been endorsed by the Turkish veterinary and have been used as a basis for the preparation of this project. It is clear that the improvement of the veterinary system is of critical importance for Turkey’s pre-accession process as well as for the domestic production and trade thus benefiting the general public in Turkey and also the many visitors to the country. An improved animal health and public health status will also enable Turkey to export more livestock and livestock/fisheries products to the EU thus assisting the economic recovery.

The Turkish veterinary service has therefore prepared this project which targets some selected areas among those indicated in the TAIEX report. The priority areas which have been considered in the preparation of this project are veterinary legislation, animal health, veterinary information systems, veterinary border inspection, veterinary public health and animal welfare. From a functional point of view, the sections of the veterinary sector to be addressed by the project have been grouped into three components, namely:

- Animal health (which includes three sub-components i.e. disease surveillance, control and eradication as well as veterinary information systems and border inspection. The latter two sub-components have strong implications on animal disease control);

- Veterinary public health; and,

- Animal welfare.

This project covers also the horizontal issue of veterinary legislation, related to the three above components. There is also a strong need to reinforce the veterinary service through institutional
reform and human resource strengthening (to be achieved through institution building and training). In addition, it is necessary to support the investment required to implement the new aligned regulatory framework. This is why this project combines an important institution building component (to be delivered through a twinning scheme) and an investment component.

This project will improve both animal health and veterinary public health in Turkey by enhancing the institutional capacity and the service provided by the veterinary laboratories in support of the veterinary sector programmes.

Below is a background and justification for the three components of the project.

**Animal Health Component**

*Surveillance, control, eradication of OIE diseases.* Turkey has 11 million cattle and 30 million sheep/goats. The animal health situation of Turkey does not match EU standards and the critical animal health status of the country represents a major problem in the framework of Turkey’s pre-accession process to the EU. The animal health situation has also an important economic impact on domestic production and trade as well as on exports and ultimately, on the situation of the livestock farmers. Currently in Turkey there are 27 compulsory notifiable animal diseases and the situation for the most important of these is given in Annex V.

A number of OIE list A and B diseases control or eradication programmes need to be developed and intensified in line with the EU approach. Currently there are no contingency plans according to EU directives.

Diagnosis, production, control and research activities are carried out in 8 Regional Veterinary Control and Research Institutes, 1 National Foot and Mouth Disease Institute, 1 Poultry Disease Research and Vaccine Production Institute. None of these laboratories are accredited. Establishment of EU and OIE standards in diagnosis and test methods (including international ring tests), the improvement of vaccine control units and accreditation procedures are required to be further developed. This project will improve animal health in Turkey also by enhancing the institutional capacity and the service provided by the veterinary laboratories in support of the veterinary sector programmes.

This project will enable disease surveillance to be carried out for a number of important OIE list A and B diseases thereby providing essential information for MARA to combat these diseases. Epidemiological surveillance studies will be undertaken for FMD, Rinderpest, Blue tongue, Sheep and Goat pox, Avian Influenza, BSE, Brucellosis and Rabies. As a result of these studies and the equipment supplied by this project, certain national control and eradication programmes will be carried out for the aforementioned diseases, and the following EU directives will be met (either in whole or in part) both under the regulatory framework as well as in the practical implementation aspects: 77/391/EEC, 78/52/EEC, 82/400/EEC (TB and brucellosis), 85/511/EEC (FMD), 92/40/EEC (Avian Influenza), 92/119/EEC (exotic diseases) and 2000/374/EC (BSE). The preparation of contingency plans will be another way in which this project will improve the animal health status of Turkey. The swift and effective elimination of epidemic diseases is critical part of EU veterinary policy.

*Veterinary Informatics.* In Turkey, there is currently a data collection system in order to gather data on animal diseases. This system is functioning through fax messages, correspondence, telephone or partially by e-mails between the institutions of MARA. Also in the General Directorate of Protection and Control, there are 160 computers that are connected to a Local Area Network (LAN), 3 servers and internet connection of 512 KBs Frame Relay. In 2001, a computer with an Internet connection was provided to the Animal Health Department of each the 81
Provincial Directorates. It is now proposed to extend this system to cover all the institutions related to animal health issues in order to establish a more precise data collecting system.

The Turkish Government has made the harmonisation of legislation with the EU acquis regarding the identification and registration of bovine animals a short-term priority and the Government has started to implement a large-scale project to identify and register about 10 million bovine animals and about 2 million holdings in Turkey. To date, approximately 4.5 million animals have been tagged, 3.5 million of these have been entered into the database. This project will build on these results and will deliver a fully operational veterinary information system in line with EU requirements. This will enable the GDPC to maintain better control over animal movement and enable them to track and trace animals more effectively in the event of a disease outbreak, making it easier to control the epidemic. In implementing this project Turkey will be taking measures to comply both under the regulatory framework as well as in the practical implementation aspects with the following EU legislation: Dir. 92/102/EEC, Regs 2628/97, 2629/97, 2630/97, Reg. 494/98 and Reg. 1760/2000. The system will also act as a tool to assist with implementing Dir. 64/432/EEC.

Turkey wants to prevent as much as possible the outbreak of contagious diseases and to get better control of activities during an outbreak. In order to achieve this, an effective Veterinary Information System (VIS) is required based on animal identification and registration. Furthermore, the EU provides directives for direct farmer income support and all these directives require detailed and correct data on farms, land, animals, etc. Therefore the VIS is needed to provide up-to-the–minute data on numbers of animals and holdings.

Border Inspection system. Turkey, due to its geographical location, is a bridge between Europe and Asia and is therefore continuously threatened by the spread of epidemics owing to the illegal entrance of animals from its eastern and south-eastern neighbouring countries. This in turn represents a threat to the whole European continent. It is of great importance to control the illegal animal movements from the borders and Turkey has started to take some measures for the control of animal movements.

Once Turkey becomes an EU Member State, the EU’s borders will be extended to Turkish borders with Asia and Middle East, making Turkey a frontline country. It is important that Turkey has a strong border inspection system controlling international movements of animals and products of animal origin and protecting public and animal health from contagious or infectious diseases. The adjustment of the system of veterinary border controls to the EU requirements is an important short-term priority for Turkey.

The existing border inspection regime does not correspond to the system used by the EU Member States in several aspects. Import licenses are used and checks are partly carried out at the border and partly at the place of destination. Some of the border facilities to the Middle East and to the Commonwealth of Independent States (CIS) countries to the east of Turkey have not been manned due to financial restraints and the central office in Ankara is understaffed. Staff both at the central office and at the border inspection posts (BIPs) must receive good and comprehensive training both concerning legislation and procedures. Also border inspection post facilities are inadequate and do not match EU requirements.

This project will upgrade one long-term BIP to EU standard – this will serve as a model for future upgrades and will represent the first part of a strategy to upgrade all the long-term BIPs of Turkey. EU legislation being met, both under the regulatory framework as well as in the practical implementation aspects, includes directives 91/496/EEC, 97/78/EC, 90/425/EEC and 89/662/EEC.

Veterinary Public Health Component

Also the veterinary public health situation of Turkey does not match EU standards and this represents a major problem in the framework of Turkey’s pre-accession process to the EU and has
an impact on international trade. The main problems of the Turkish veterinary public health are related to the division of responsibilities between the central level and regional and local authorities as well as the inability of the competent authority to support the control of residues in live animals and products which are line with EU standards.

This project will enable Turkey to clarify the institutional aspects related to the veterinary public health as well as to implement Dir. 96/23/EC relating to control of residues in live animals and products, Dir. 96/22/EC on prohibition of thyreostatics, hormones and beta-antagonists, and the following EU legislation relating to public health; Dir. 2001/82/EC, Reg. 2377/90, Reg. 2309/93, Dir. 87/22/EEC repealed by 93/41/EC, Dir. 90/167/EEC, Dec. 199/879/EC, Dir. 91/412/EEC, Dir. 88/320/EEC, Dir. 90/219/EEC and 90/220/EEC. Both the regulatory framework as well as the practical implementation aspects of the above will be met. MARA will also be equipped to play their part in implementing many of the EU trade directives, including 64/432/EEC on bovines and porcine animals, 64/433/EEC on fresh meat, 91/494/EEC on poultry meat, and others.

**Animal Welfare Component**

Animal welfare has only recently become a priority for the General Directorate for Protection and Control. A draft regulation on Animal Welfare, prepared by the MARA is currently being reviewed by other relevant Ministries and is in the adoption procedure. There is a general lack of awareness of the animal welfare matters, both at the level of the competent veterinary authority as well as the level of official teaching establishments and other stakeholders.

Animal welfare is an increasingly important issue within the EU and Turkey needs to be prepared both on the legislative as well as on the enforcement sides. Assistance is required in preparing the legislation and providing training to selected veterinary staff as well as to main educational establishments. EU Animal welfare legislation that will be covered by the project, both under the regulatory framework as well as in the practical enforcement aspects, includes Dir. 86/609/EEC, Dir. 88/166/EEC, Dir. 91/629/EEC, Dir. 91/630/EEC, Dir. 1999/22/EC, Dir. 98/58/EC, Dir. 93/119/EEC, Dir. 91/628/EEC, Reg. 1255/97 and Reg. 411/98.

### 3.2 Linked activities

#### 3.2.1. EC-MEDA Support to the Turkish Authorities in Charge of Legislative Alignment to the Acquis in the Veterinary sector

Under the Admincoop Programme a group of selected EU and Turkish experts is assisting the Veterinary Working group on (a) the definition of a strategic plan for harmonisation through analysis and prioritisation (thereby refining the relevant sections of the NPAA); (b) Preparing new, and/or revise existing, primary and secondary legislation conform to the EU veterinary acquis for subsequent adoption; (c) Institutional needs assessment and definition of reform proposals for the implementation, enforcement and monitoring of EU-harmonised legislation at local, regional and national levels. The main outputs of this assistance (ending March 2003) relevant to this project are a draft of a Veterinary Framework Law, an institutional assessment and reform proposals, and a strategy for legal approximation.

#### 3.2.2. MATRA/PSO Technical Assistance project, for "Identification and Registration of Bovine Animals in Turkey"

The Dutch Government within the framework of MATRA/PSO programmes in 2001 is delivering a technical assistance project for identification and registration of bovine animals in Turkey. The project started in January 2002 and is due to end on June 2003. The MATRA/PSO project will carry out a feasibility study for an animal identification and registration system. This project will build on this assistance to realise a Veterinary Information System (VIS) based on an animal identification and registration database.
3.2.3. WB - Farm registration project

The Government of Turkey has so far established a paper-based register of Turkish farms. The World Bank will be providing PCs and computer training to farmers. This project will integrate and link the VIS system with any electronic farm register created by the World Bank project.

3.3 Results

3.3.1 Animal Health Component

- Secondary legislation relating to the three areas covered by this component is prepared and passed fully in line with the EU requirements. The EU principal directives, regulations and decisions will be transposed into the Turkish legislation, under the umbrella of the Veterinary Framework Act.

Sub-Component 1 - Disease surveillance, control and eradication

- The Competent Authority will be trained and equipped to undertake epidemiological surveillance studies for FMD, Rinderpest, Sheep and Goat Pox, Blue tongue, Avian Influenza, BSE, Brucellosis, and rabies with the aim of investigating both the existence and the level of infectivity of these diseases. Following these studies national control and eradication programmes will be formulated.
- Strengthened ability of the Competent Authority to control and eradicate certain important OIE List A and B diseases.
- Laboratory facilities are in line with EU and international standards and this will enable efficient and reliable diagnostic techniques for animal diseases, residues, etc. More precise laboratory results will be obtained and detection methods will be standardized. The improvement of the existing diagnosis infrastructure of the laboratories in order to diagnose Foot and Mouth Disease, Rinderpest, Blue Tongue, PPR, Sheep and Goat Pox, Avian Influenza and Newcastle Disease, BSE, Brucellosis, Tuberculosis, Rabies and other diseases in a more rapid and reliable manner, for the control of animal diseases.
- Establish the conditions for the accreditation of the principal veterinary laboratories in line with EU and international standards (Good Manufacturing Practice and Good Laboratory Practice).
- Establish the conditions for the principal veterinary laboratories to participate in EU ring tests.
- Higher quality and reliable vaccines and biologicals (i.e. high safety, efficacy and purity) will be produced resulting in a reduced occurrence of diseases throughout the country due to the increased immunity levels. There will be capacity to produce safe and sufficient vaccine at a low price for the combat of FMD, Blue Tongue, Rabies, PPR, etc. Vaccine strains and cell lines will be obtained to produce efficient vaccine against new epidemics in Turkey and stock vaccine banks will be established for possible new epidemics.
- Security and safety standards of the viral vaccine production and viral diagnosis laboratories will be upgraded to the Level 3 of the laboratory standard scale.
- A national Foot and Mouth Disease contingency plan will be prepared and this will be used as the basis for the development of contingency plans for other selected OIE List A diseases.

Sub-Component 2 – Veterinary Information system

- A veterinary information system supporting bovine identification and registration (I&R), movement controls, disease control programs and notification systems (ANIMO, ADNS and SHIFT systems) that serves central, provincial and district veterinary directorates with links to laboratories, BIPs, key markets and slaughterhouses will be established. The system
will enable veterinary information and data to be communicated rapidly and accurately between the stakeholders. The system could be extended in future projects to other species, e.g. sheep and goats, equines.

- A strengthened MARA and stakeholders able to implement the relevant EU acquis on Identification, Registration and Movement Control of bovine animals.
- Defined Cattle Identification, Registration and Movement Control system (responsibilities, tasks relationships, etc).
- An Identification, Registration and Movement Control software application and database which registers all bovine owners, keepers, holdings, herds and animals is created and is fully conform to the EU legislation. All births, movements and deaths to be recorded in the database. Herd health status and restrictions will also be recorded and all veterinary events that may affect the herd health status or may cause a movement, slaughter or milking restriction to be imposed at area, holding, herd or animal level. These events include vaccinations, treatments, animal health and residue tests, disease outbreaks and imposition of sanctions. The application will have full tracking and tracing facilities and reports and will have a Geographical Information System (GIS) capability. The General Directorate, Provincial Directorates, District Directorates, veterinary laboratories, BIPs, large market places and large slaughterhouses will have direct access to the database software.
- All necessary hardware and communications infrastructure will be in place to support the database software.

**Sub-component 3 – Border Inspection system**
- There will be improved awareness at the GDPC of EU policy and procedures relating to veterinary border inspection.
- There will be technical specifications and detailed plans to upgrade 7 Border Inspection Posts (BIPs) to EU standards.
- One selected BIP will be upgraded to meet EU standards.

**3.3.2. Veterinary Public Health Component**
- Clarified and institutionalised division of responsibilities between the central level and regional and local authorities.
- Secondary legislation relating to the areas covered by this component is prepared and passed fully in line with the EU requirements. The EU principal directives, regulations and decisions will be transposed into the Turkish legislation, under the umbrella of the Veterinary Framework Act.
- Enhanced institutional capacity and the service provided by the veterinary laboratories in support of the veterinary public health sector programmes. Competent authority is able to support the control of residues in live animals and products which are line with EU standards;
- Three main national residue analysis laboratories (Etlik, Bornova and Pendik) equipped to fulfil their institutional duties.

**3.3.3. Animal Welfare Component**
- EU acquis-harmonised secondary legislation relating to animal welfare is prepared and passed. The EU principal directives, regulations and decisions will be transposed into the Turkish legislation, under the umbrella of the Veterinary Framework Act.
- The EU concept of animal welfare is well understood by the State Veterinary Service and will enable it to disseminate animal welfare principles and knowledge to other stakeholders (i.e. those handling animals in the livestock industry) as well as start the enforcement of the legislation in the country.
The concept of animal welfare will be introduced to key higher veterinary educational establishments and, once national legislation is in place, will foster it to become a subject in the veterinary teaching.

3.4 Activities

Project activities include:

3.4.1. The Twinning Project

A 24 months duration twinning project is envisaged. The EU twinning partner(s) will assist the MARA in transposing and implementing the EU veterinary control systems in Turkey. Based on the transposition plan, the twinning experts will work together with the expert staff of MARA.

A Pre-Accession Adviser (PAA) will be employed for the 24 months of the twinning project. The PAA will be assisted full time by a local assistant. The PAA will be assisted by one (or more) EU legal expert for 6 months to provide advice and guidance transposing the secondary veterinary legislation and by Local experts (6 months) to provide support services in preparation of the legislation in line with the veterinary acquis. The tasks of the PAA will be to:

- organise and co-ordinate the project activities and provide professional support in developing the related areas;
- act as advisor and facilitator to the management on harmonisation of relevant legislation and institutional reforms in line with the EU acquis;
- act as advisor and facilitator to the implementation and enforcement of harmonised legislation.

PAA Profile

- Work experience – at least 7 years in Animal Health and Veterinary Public Health and should have knowledge of Veterinary Information Systems, Veterinary Border Inspection, Animal Welfare as practiced in the EU;
- Language proficiency: Fluent in English;
- Education: A degree in veterinary medicine;
- A good knowledge of EU veterinary legislation and experience in implementing it.

Specific Twinning assistance (provided by short term EU experts) and training (both in-country and in Member States) will cover the institutional building aspects related to the three project components, as below described:

(a) Disease surveillance, control and eradication

Twinning assistance and training on Disease surveillance, control and eradication is divided into General Epidemiology (beneficiary are the staff that will constitute the nucleus of the Epidemiology Unit of the GDPC, the strategic planning unit to combat animal diseases), Epidemiology and Diagnosis of Specific Diseases, Laboratory training (the latter two are addressed to key laboratory veterinarian staff of the relevant laboratories), Contingency Planning and Border Inspection.

General Epidemiology:

- Training in epidemiology, including basic statistics and data evaluation for government veterinary services: 2 veterinarians for 3 months in a Member State;
In-country training of epidemiologists from the institutes, provinces and districts provided by Member State experts. Eight training courses covering the country for 10 days each. 1 local expert and translators to assist with implementation of the training course;

In country training on ADNS and assistance with system implementation.

The Epidemiology of Specific Diseases

Training for 1 veterinarian in FMD epidemiology and diagnosis in a Member State for 1 month;

Training for 1 veterinarian in Blue tongue epidemiology and serotyping of vector-borne diseases (isolation and identification ) in a Member State for 1 month;

Training for 1 veterinarian in PPR epidemiology and diagnosis in a Member State for 1 month;

Training for 1 veterinarian in Avian Influenza and Newcastle Disease epidemiology and diagnosis in a Member State for 1 month;

Training for 1 veterinarian in Rabies epidemiology and new molecular methods in diagnosis in a Member State for 1 month;

Training for 1 veterinarian in TB epidemiology and diagnosis and antigens production, and Paratuberculosis in a Member State for 1 month;

Training for 1 veterinarian in epidemiology and diagnosis of Brucellosis, CBPP, CCPP and CA, in a Member State for 1 month.

Laboratories

Three EU laboratory accreditation experts for 3 viral disease laboratories (one of which FMD) for a total of 6 man months;

One EU expert to provide two weeks training in Ankara Veterinary Control and Research Institute on production of tissue culture Rabies vaccine;

One Turkish veterinarian for one month in a Member State to be trained on viral vaccine quality control methods;

One Turkish veterinarian for one month in a Member State to be trained on bacterial vaccine quality control methods;

One Turkish veterinarian for 2 months in a Member State to be trained in production and control of poultry vaccine from cell culture including Marek and Gumboro vaccines;

One (or two) EU expert(s) to provide one month training in Konya, Pendik, Etilik and Bornova Veterinary Control and Research Institutes on GMP relating to vaccine production for a number of diseases.

One Turkish veterinarian for one month in a Member State to be trained on new diagnostic techniques of Dourine and Pyroplasmosis in horses;

One (or two) EU expert(s) to provide one month in country training on diagnostic methods of bee diseases;

One Turkish veterinarian to be trained for 1 month in a Member State on diagnosis of important fish pathogens;

One Turkish veterinarian to be trained for 1 month in a Member State on diagnosis of viral fish diseases;

One Turkish veterinarian to be trained for 1 month in a Member State on monoclonal antibody production;
- One Turkish veterinarian to be trained for 1 month in a Member State on hydroscopic grid membrane filtration techniques (the only way to diagnose some bacterial agents);
- One Turkish veterinarian to be trained for 0.5 month in a Member State on identification of bacterial toxins;

Contingency Planning
- An EU expert to assist, for two months, in the preparation of a contingency plan for FMD which will be used as the basis for the development of other contingency plans for selected OIE List A diseases;

Border Inspection
- One or two EU expert(s) in veterinary border inspection to review current practice and assist, for two months, in the preparation of a procedures manual for Border inspection;
- Four Turkish veterinarians sent on a border inspection study tour for 0.5 month in one or more Member State(s) or other Candidate Country to observe how EU policies and procedures are implemented in practice.

(b) Veterinary Public Health
- One (or more) EU expert(s) to provide two month training to veterinarians at several sites in Turkey on auditing techniques for red meat and poultry slaughterhouses, and on meat inspection;
- Four Turkish laboratory veterinarians to be trained for 2 weeks in a Member State on residue analysis (pesticides, hormones, antibiotics and veterinary drugs) in products of animal origin (HPLC-post column derivation analytic techniques, GC and GC-MS techniques).

(c) Animal Welfare
- One Turkish veterinarian from the General Directorate Animal Disease Department to be trained for one month in a Member State on EU animal welfare legislation and on the organisational implications of legislation enforcement;
- Two Turkish veterinarians from the Veterinary Faculty and the Turkish Veterinary Association to be trained in animal welfare education and curriculum for 0.5 months each in a Member State;
- An EU expert to provide two week lectures to Turkish Veterinary Schools staff in developing animal welfare as part of the veterinary curriculum.

3.4.2. Supply of Products, Materials and Equipment for Disease Control and Residue Analysis

The supply of epidemiological products (kits, vaccines and other materials) for clinical, serological and entomological surveillance and disease control will be provided by the project.

Epidemiological products and materials are required for the surveillance studies for FMD, Rinderpest, Blue tongue, Sheep and Goat pox, Avian Influenza, Newcastle Disease, BSE, Brucellosis, TB and rabies aiming to examine existence of these diseases to determine the level of regional and national prevalence and the cause and to evaluate the efficiency of vaccination will be executed

Laboratory equipment will be supplied, installed and tested for the 4 different institutes (Etilik, Bornova and Pendik Veterinary Control and Research Institutes and the FMD Institute). See Annex VI for a detailed but indicative list of inputs.
3.4.4. Veterinary Information System (VIS)

The following activities for implementing a VIS will be undertaken by means of a supply contract (for the hardware) with ancillary services (for the software).

- Setting up a project management structure and preparing a project plan;
- Preparation of the institutional infrastructure and detailed systems analysis;
- Design of the fully working Identification, Registration and Movement Control system, including all elements;
- Preparation of a detailed specification for the database software;
- Preparation of a detailed specification for the hardware and communications infrastructure for the veterinary information system;
- Procurement of the central database software and other needed software;
- Procurement of the hardware at central and regional level;
- General training in the use of computers for staff at regional level;
- Preparation of an Implementation Plan;
- Preparation of a Communication Plan;
- Adaptation/Customisation of the procured database software to meet the specific Turkish requirements;
- Develop interfaces to other relevant database systems;
- Cleanse and convert data from the current Identification and Registration database to the new database software;
- Collect all the other required data;
- Preparation of manuals;
- Testing, correcting possible errors and fine-tuning of database software;
- Implement Installation and Communication Plans;
- Installation of the applications on the sites of operation;
- Training of users and operators located at 1.230 centres in use of the veterinary information system
- Develop user support, fault correction, software maintenance and follow-up contracts;

See Annex VI for a detailed but indicative list of inputs.

3.4.5. Border Inspection

The Border Inspection component involves two contracts: one for Technical assistance and one for Works. Following the TAIEX Border Post Strategy a Veterinary Border Inspection Posts Technical Assistance contract will be undertaken to:

(a) review the TAIEX Strategy and identify, together with the recipient, 7 long term BIPS and (b) prepare plans for the upgrading of these 7 long-term BIPs to EU standard. The assistance will identify the works to be completed in order that Veterinary staff can undertake full inspection and testing as per the EU requirements. The Technical Assistance outputs will include the following:

- a report reviewing the TAIEX Strategy and identifying, together with the recipient, 7 long term BIPS to be included in this project
- a description of the requirements, in line with EU standards;
- a description of the existing situation at each of the 7 selected BIPs and how they fall short of the requirements described earlier;
- a description of any action that needs to be undertaken or any problems that need solving prior to tendering, e.g. the purchase of land, co-ordination with other border authorities, etc. An agreed timetable for the resolution of any existing problems or pre-conditions;
the detailed designs, including site plans, a full list of building works and equipment required, bills of quantity, costs, full technical specifications for equipment and facilities, etc. for each selected BIP (so that the works can be tendered without the need for any further documentation);

- an implementation plan, including timescales and estimated costs;
- the preparation of one Tender Dossier and provision of assistance in the tendering procedure (for the selection of the Contractor);
- the provision of supervision of works all along the construction period and up to the completion of the defects liability period.

Concerning the works contract, at least one (depending on the budget availability) of the 7 BIPs covered by the study will then be selected for upgrading and all necessary building work, equipment and facilities.

See Annex VI for a detailed but indicative list of inputs.

3.5 Lessons Learned

In designing this project full account has been taken of the comprehensive ‘Review of the Veterinary System of Turkey’ issued by the TAIEX office in early 2002. The great majority of the conclusions and recommendations of sections

- B (Veterinary Legislation) e.g. veterinary framework act and secondary legislation,
- C (Animal Health), e.g. control and combating of OIE List A and B diseases, contingency plans, rabies control, Identification and Registration of Cattle, animal health laboratories accreditation, participation to ring tests and trained staff (excluded rendering plan and stamping out policy)
- D (Animal Welfare), e.g. legislation, training of inspectors and educational establishments
- F (Veterinary Public Health), e.g. legislation, residue monitoring
- H (Border Inspection) e.g. border inspection regime, veterinary supervision of free warehouses, zones and customs warehouses
- I (Veterinary informatics) e.g. ADNS, ANIMO and epidemiological IT systems

have been used as guideline and founding basis to set this project’s purposes, results, activities and conditionalities. Some of the recommendations of the TAIEX report (such as for example the non existence of a stamping out policy etc.) are not addressed as they are out of the scope of this project. However, this project will provide decision makers with the basic mechanisms allowing future implementation of these policies once adequate national financial resources will be available.

The work carried out by the MATRA-PSO technical assistance project on animal identification and registration has also been duly taken into consideration in the design of the veterinary information system component. Of particular use have been the institutional and legal analysis and the needs assessment available at the moment of the design of this project.

No lessons have been drawn from the EC-MEDA Support to the Turkish Authorities in Charge of Legislative Alignment to the Acquis in the Veterinary sector due to its early stages of implementation. However this project will build on its results.
4. Institutional Framework

In Turkey, animal health services are carried out by General Directorate of Protection and Control under the Ministry of Agriculture and Rural Affairs (MARA) through 81 Provincial Directorates, 849 District Directorates, 8 Regional Veterinary Control and Research Institutes, 1 National Foot and Mouth Disease Institute, 1 Poultry Diseases Research and Vaccination Production Institute, 6 Border Veterinary Quarantine and Inspection Directorates. Organisational charts of MARA and the General Directorate of Protection and Control can be found at Annex VII.

Veterinary activities are carried out by 2,264 official veterinarians working in central and provincial organizations, 1,350 veterinarians working in the universities, laboratories and institutions and 2,592 veterinary technicians under the supervision of the veterinarians employed for the supplementary laboratories. Furthermore, there are 2,582 private veterinarians working as private practitioners and licensed by some municipalities to assist the activities of the state veterinarians.

There is a central epidemiology and information unit responsible for the verification and evaluation of the collected data on animal health. In addition, there are 10 epidemiological units under the institutional directorates.

This project, and in particular the institution building component, will assist the Government in carrying out the necessary reforms, both on the legal and institutional sides. In particular, the main legal instrument, the veterinary framework law should be in advanced adoption procedure. The secondary legislation, where relevant, will be reviewed, amended and or drafted and adopted under this project. On the institutional side, reform proposals will be made regarding operational matters and definition of duties at central and local level in accordance with EU member states best practice. One subject which is a specific institutional reform output of this project is the clarification and institutionalisation of the division of responsibilities concerning veterinary public health between central, regional and local authorities.

5. Detailed Budget

<table>
<thead>
<tr>
<th>EC Support</th>
<th>Investment</th>
<th>Institution Building</th>
<th>Total EC (=I+IB)</th>
<th>National Co-financing</th>
<th>IFI</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twinning Contract 1</td>
<td></td>
<td></td>
<td>1,400,000</td>
<td></td>
<td></td>
<td>1,400,000</td>
</tr>
<tr>
<td>Lab/Epidem Supply Contract 2</td>
<td>5,812,500</td>
<td></td>
<td>5,812,500</td>
<td>1,937,500</td>
<td></td>
<td>7,750,000</td>
</tr>
<tr>
<td>Veterinary Information System Contract 3</td>
<td>3,970,500</td>
<td></td>
<td>3,970,500</td>
<td>1,323,500</td>
<td></td>
<td>5,294,000</td>
</tr>
<tr>
<td>BIP Tech. Assist Contract 4</td>
<td></td>
<td></td>
<td>800,000</td>
<td></td>
<td></td>
<td>800,000</td>
</tr>
<tr>
<td>BIP upgrade Contract 5</td>
<td>1,350,000</td>
<td></td>
<td>1,350,000</td>
<td>450,000</td>
<td></td>
<td>1,800,000</td>
</tr>
<tr>
<td>Total</td>
<td>11,133,000</td>
<td>2,200,000</td>
<td>13,333,000</td>
<td>3,711,000</td>
<td></td>
<td>17,044,000</td>
</tr>
</tbody>
</table>

The Government of Turkey will provide 25% co-financing in cash for the investment component of the project. The national co-financing will be covered from the national budget, and will include laboratory equipment, computers, etc. All operating and maintenance costs of the equipment purchased under this project will be provided by the beneficiary. The same applies to software licences.
The Turkish contribution to the Twinning will cover e.g. provision of office equipment and space for the PAA, organisational costs of training (rental fees, accommodation, catering as well as local and international travel of trainees) and other costs non-eligible for funding as specified in the "Reference Manual on Twinning Projects".

6. Implementation Arrangements

6.1 Implementing Agency
The CFCU will be the implementing agency and will be responsible for all procedural aspects of the tendering process, contracting matters and financial management, including payment of project activities.

Installation Plans must be prepared for the equipment for each laboratory. The plans must show where the equipment will be placed and to take into account the location of existing equipment, power points, etc.

The implementation of this project requires the full commitment and participation of the senior management of the beneficiary institution. In addition to providing the twinning partner with adequate staff and other resources to operate effectively, the senior management must be wholeheartedly involved in the development and implementation of the policies and institutional change required to achieve the project results.

6.2 Project Beneficiary
The project beneficiary will be MARA and in particular the GPDC (and its main departments Animal health, Animal Movement and Quarantine, and Public Health) and the Veterinary Control and Research Institutes.

Name: Dr H Sungur, Director General, GDPC.
Address: Akay Cad.No 3, Bakanliklar, 06100 Ankara, Turkey
Tel No: 00-90-312-425 77 89
Fax No: 00-90-312-418 63 18
E-mail: vet_service@kkgm.gov.tr

6.3 Twinning
One twinning covenant with MARA is envisaged with a duration of 2 years. The PAA will be in place for the full 2 years. Specific Twinning assistance (provided by short term EU experts) and training (both in-country and in Member States) will cover the institutional building aspects related to the three project components: Disease surveillance, control and eradication (general epidemiology, epidemiology and diagnosis of specific diseases, laboratory training, contingency planning, and border inspection), Veterinary Public Health, and Animal Welfare.

The Twinning beneficiary will be the same as the project beneficiary (see section 6.2).

6.4 Non-standard aspects
There are no non-standard aspects.

6.5 Contracts
There will be one selection procedure for the Twinning and four tenders. A total of 5 contracts is envisaged, with an estimated cost as follows:
Twinning Covenant (€ 1,400,000)
Supply of Equipment and materials (€ 7,750,000)
Supply Contract (Veterinary Information System) (€ 5,294,000)
Technical Assistance Contract for the BIP (€ 800,000)
Works Contract (BIP upgrading) (€ 1,800,000)

6.6 Implementation Schedule

The following implementation schedule is anticipated:

<table>
<thead>
<tr>
<th>Component</th>
<th>Start of Tendering</th>
<th>Start of Project Activity</th>
<th>Project Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twinning</td>
<td>Oct. 2002</td>
<td>Mar/Apr 2003</td>
<td>May 2005</td>
</tr>
</tbody>
</table>

7. Equal Opportunity

All participating Turkish institutions are equal opportunity employers. No discrimination of whatever nature will be applied.

8. Environment

Not applicable

9. Rates of Return

Not applicable

10. Investment criteria

Not applicable

11. Conditionality and Sequencing

The Veterinary Framework Law will have been drafted and will be in the process of adoption. A technical assistance team is already in place and before the end of 2002 a draft will be available for starting the adoption process.

Beneficiary laboratories must satisfy the following conditions before the laboratory equipment will be supplied:

1. The laboratories must be in good structural condition and must have adequate space for installation and operation of the equipment and for carrying out the necessary techniques.
2. There must be adequate and satisfactory supplies of services, including, where appropriate, electricity, water, drainage and gas with sufficient and appropriately located outlet points.
3. There must be adequate and appropriate ventilation and temperature controls, including air conditioning where necessary, to provide a suitable working environment.
4. Conditions must be suitable to protect staff from noxious materials including chemicals and biological agents.
A specific report (including relevant plans and descriptions) prepared by the project beneficiary and certifying that the above conditionality is met shall be submitted to the EC-Representation for verification before supply contract signatures.

The recipient of the Veterinary Information System shall timely employ sufficient manpower at central and decentralised levels to operate and maintain the System in accordance with the needs detailed in the Annex to the Technical Specifications of the supply tender documents.

TAIEX will have undertaken a strategic border post study during the first months of 2003 and will have identified all the Turkish long- and short-term BIPs.

**ANNEXES TO PROJECT FICHE**

I. Logical framework matrix

II. Detailed implementation chart

III. Contracting and disbursement schedule by quarter for full duration of program (including disbursement period)

IV. Related part of the National Program for the Adoption of the Acquis

V. Status Report for some of the Significant Animal Diseases in Turkey

VI. List of project inputs
<table>
<thead>
<tr>
<th>ANNEX I - LOGFRAME PLANNING MATRIX FOR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project:</strong> Alignment of Priority Veterinary Sector Issues with the EU Acquis</td>
</tr>
<tr>
<td><strong>Programme name and number:</strong></td>
</tr>
<tr>
<td><strong>Date of drafting:</strong> 17/7/2002</td>
</tr>
<tr>
<td><strong>Total budget:</strong> 17,044,000 Euro</td>
</tr>
<tr>
<td><strong>EC budget:</strong> 13,333,000 Euro</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall Objective</th>
<th>Objectively Verifiable Indicators</th>
<th>Means of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The overall objective is to support the Turkish Ministry of Agriculture(^2) in aligning to the relevant EC standards of veterinary legislation and activities in the fields of animal health, veterinary public health and animal welfare.</td>
<td>MARA and its services are able to provide relevant services and operate priority sectors according to the EU standards and legislation.</td>
<td>DG SANCO inspections, FAO/FMD Commission Inspections, TAIEX visits</td>
<td>Turkey maintains its commitment to EU membership, Absence of major political turmoil</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Purpose</th>
<th>Objectively Verifiable Indicators</th>
<th>Means of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>To improve the capability of the competent authority to carry out border control, epidemiological surveillance and produce high quality vaccines necessary to control and eradicate ‘OIE List A and B’ animal diseases.</td>
<td>By end 2006, minimum 10% decrease of number of outbreaks of OIE List A diseases compared to current (2002) figures</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>By end 2006 decreased prevalence of Brucellosis compared to 1998 survey</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>By end 2006 minimum 10% increase of TB tests as compared to the 2002 number</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>By end 2002, minimum 10% decrease of number of Rabies outbreaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>By 2006, the number of residue analysis increased by 25%minimum compared to current number.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To improve the public health measures taken by the State Veterinary Service.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To develop the concept of animal welfare in Turkey.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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\(^2\) Ministry of Agriculture (MARA) and its services, in particular the General Directorate for Protection and Control (GDPC)
<table>
<thead>
<tr>
<th>Animal welfare law adopted</th>
<th>veterinary Office responsible for Animal welfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of courses provided in animal welfare at the faculties and at the State Veterinary Service.</td>
<td></td>
</tr>
</tbody>
</table>
Results

Objectively Verifiable Indicators

Means of Verification

Assumptions

**Animal Health Component**
- Secondary legislation relating to the three areas covered by this component is prepared and passed fully in line with the EU requirements. The EU principal directives, regulations and decisions will be transposed into the Turkish legislation, under the umbrella of the Veterinary Framework Act.

**Sub-Component 1 - Disease surveillance, control and eradication**
- The Competent Authority will be trained and equipped to undertake epidemiological surveillance studies for FMD, Rinderpest, Sheep and Goat Pox, Blue tongue, Avian Influenza, BSE, Brucellosis, and rabies with the aim of investigating both the existence and the level of infectivity of these diseases. Following these studies national control and eradication programmes will be formulated.
- Strengthened ability of the Competent Authority to control and eradicate certain important OIE List A and B diseases.
- Laboratory facilities are in line with EU and international standards and this will enable efficient and reliable diagnostic techniques for animal diseases, residues, etc. More precise laboratory results will be obtained and detection methods will be standardized. The improvement of the existing diagnosis infrastructure of the laboratories in order to diagnose Foot and Mouth Disease, Rinderpest, Blue Tongue, PPR, Sheep and Goat Pox, Avian Influenza and Newcastle Disease, BSE, Brucellosis, Tuberculosis, Rabies and other diseases in a more rapid and reliable manner, for the control of animal

<table>
<thead>
<tr>
<th>Drafted Legislation in line with EU requirement.</th>
<th>Draft documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passed Legislation in line with EU requirements.</td>
<td>Official Gazette</td>
</tr>
<tr>
<td>The number of training courses provided.</td>
<td>MARA annual reports</td>
</tr>
<tr>
<td>The number of staff trained.</td>
<td>GDPC annual reports</td>
</tr>
<tr>
<td>The number of kits and the quantity of materials provided to the field veterinarians.</td>
<td>TAIEX reports</td>
</tr>
<tr>
<td>The number of training courses provided.</td>
<td>DG SANCO reports</td>
</tr>
<tr>
<td>The number of staff trained.</td>
<td>Twinning project reports</td>
</tr>
<tr>
<td>The amount of equipment delivered to the laboratories.</td>
<td>EU Delegation information</td>
</tr>
<tr>
<td>The number of samples collected and tested under the surveillance programmes.</td>
<td></td>
</tr>
</tbody>
</table>
- Establish the conditions for the accreditation of the principal veterinary laboratories in line with EU and international standards (Good Manufacturing Practice and Good Laboratory Practice). Establish the conditions for the principal veterinary laboratories to participate in EU ring tests.

- Higher quality and reliable vaccines and biologicals (i.e. high safety, efficacy and purity) will be produced resulting in a reduced occurrence of diseases throughout the country due to the increased immunity levels. There will be capacity to produce safe and sufficient vaccine at a low price for the combat of FMD, Blue Tongue, Rabies, PPR, etc. Vaccine strains and cell lines will be obtained to produce efficient vaccine against new epidemics in Turkey and stock vaccine banks will be established for possible new epidemics.

- Security and safety standards of the viral vaccine production and viral diagnosis laboratories will be upgraded to the Level 3 of the laboratory standard scale.

- A national Foot and Mouth Disease contingency plan will be prepared and this will be used as the basis for the development of contingency plans for other selected OIE List A diseases.

| Preparation for accreditation procedures completed | The number of ring tests in which Turkish laboratories participate. |
| The safety, efficacy and purity of vaccines. | Increase in vaccine production capacity |
| Levels of laboratory security and safety. | FMD contingency plan prepared. Number of contingency plans prepared for other diseases. |

| Turkish staff are made available for training. | Trained staff continue to work for MARA. |
| Local support is provided. | |
Sub-Component 2 – Veterinary Information system

- A veterinary information system supporting bovine identification and registration (I&R), movement controls, disease control programs and notification systems (ANIMO, ADNS and SHIFT systems) that serves central, provincial and district veterinary directorates with links to laboratories, BIPs, key markets and slaughterhouses will be established. The system will enable veterinary information and data to be communicated rapidly and accurately between the stakeholders. The system could be extended in future projects to other species, e.g. sheep and goats, equines.

- A strengthened MARA and stakeholders able to implement the relevant EU acquis on Identification, Registration and Movement Control of bovine animals.

- Defined Cattle Identification, Registration and Movement Control system (responsibilities, tasks relationships, etc).

- An Identification, Registration and Movement Control software application and database which registers all bovine owners, keepers, holdings, herds and animals is created and is fully conform to the EU legislation. All births, movements and deaths to be recorded in the database. Herd health status and restrictions will also be recorded and all veterinary events that may affect the herd health status or may cause a movement, slaughter or milking restriction to be imposed at area, holding, herd or animal level. These events include vaccinations, treatments, animal health and residue tests, disease outbreaks and

Organisational structure (with resources) in place to operate effective VIS, i.e. Operations Centre, Help Desk, Provincial and District Centres with enforcement capacity.

The number of owners, keepers, holdings, herds and animal registered on the database.

The details of the owners, keepers, holdings, herd and animals registered on the database are complete and accurate.

Fast and accurate tracking and tracing.

The number of effective electronic interfaces with other related databases.

The number of cattle ear tagged according to EU standards.

MARA annual reports
GDPC annual reports
TAIEX reports
Contractor’s project reports
EU Delegation information
Database
I&R Inspections
Collection fees
Database reports
Database reports and I&R inspections.
Provincial and District data.
Informatics Departments of the relevant institutions

Sufficient staff resources available
Sufficient and functioning basic infrastructure, e.g. rooms, electricity, telephones, etc.
Farmers and livestock industry prepared to collaborate.
Member States make proposals to implement the twinning.
Turkish staff are made available for training.
Trained staff continue to work for MARA.
Local support is provided
imposition of sanctions. The application will have full tracking and tracing facilities and reports and will have a Geographical Information System (GIS) capability. The General Directorate, Provincial Directorates, District Directorates, veterinary laboratories, BIPs, large market places and large slaughterhouses will have direct access to the database software.

- All necessary hardware and communications infrastructure will be in place to support the database software.

**Sub-component 3 – Border Inspection system**

- There will be improved awareness at the GDPC of EU policy and procedures relating to veterinary border inspection.
- There will be technical specifications and detailed plans to upgrade 7 Border Inspection Posts (BIPs) to EU standards.
- One selected BIP will be upgraded to meet EU standards.

**Veterinary Public Health Component**

- Clarified and institutionalised division of responsibilities between the central level and Organisational structure and MARA reports
- Study tour completed.
- Number of BIP staff trained
- Plans, detailed designs and bills of quantities and cost estimates available for upgrading 7 BIPs
- Selected BIP operating according to EU standards.
- MARA annual reports
- GDPC annual reports
- TAIEX reports
- TA Consultant’s reports
- Contractor’s project reports
- Contractor’s project reports
- EU Delegation information
- Member States make proposals to implement the twinning. Turkish staff are made available for training. Trained staff continue to work for MARA.
- Plans, detailed designs, bills of quantities and cost estimates for civil works and equipment technical specifications prepared in time.
- No political or security obstacles. Appropriate construction permissions can be obtained.
- Member States make proposals to implement
Secondary legislation relating to the areas covered by this component is prepared and passed fully in line with the EU requirements. The EU principal directives, regulations and decisions will be transposed into the Turkish legislation, under the umbrella of the Veterinary Framework Act.

Enhanced institutional capacity and the service provided by the veterinary laboratories in support of the veterinary public health sector programmes. Competent authority is able to support the control of residues in live animals and products which are line with EU standards;

Three main national residue analysis laboratories (Etlik, Bornova and Pendik) equipped to fulfil their institutional duties.

### Animal Welfare Component

- EU acquis-harmonised secondary legislation relating to animal welfare is prepared and passed. The EU principal directives, regulations and decisions will be transposed into the Turkish legislation, under the umbrella of the Veterinary Framework Act.
- The EU concept of animal welfare is well understood by the State Veterinary Service and will enable it to disseminate animal welfare principles and knowledge to other stakeholders (i.e. those handling animals in the livestock industry) as well as start the enforcement of the legislation in the country.
- The concept of animal welfare will be introduced to key higher veterinary educational establishments and, once national legislation is in place, will foster it to become a subject in the veterinary teaching.

<table>
<thead>
<tr>
<th>Secondary legislation passed</th>
<th>The number of training courses provided by the twinning project.</th>
<th>The number of training courses provided.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of staff trained.</td>
<td>The amount of equipment delivered to the laboratories.</td>
<td>The number of samples collected and tested under the residue surveillance programmes.</td>
</tr>
<tr>
<td>The number of ring tests in which Turkish laboratories participate.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study tour performed</th>
<th>The number of training courses provided by the twinning project.</th>
<th>The number of training courses provided.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of staff trained by the twinning project.</td>
<td>The amount of equipment delivered to the laboratories.</td>
<td>The number of samples collected and tested under the residue surveillance programmes.</td>
</tr>
<tr>
<td>The number of ring tests in which Turkish laboratories participate.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Animal Welfare Component

- Secondary legislation passed
- Study tour performed
- The number of training courses provided by the twinning project.
- The number of staff trained by the twinning project.
- The number of training courses provided educational establishments. The number of students trained by the institutes.

<table>
<thead>
<tr>
<th>TAIEX reports</th>
<th>DG SANCO Reports</th>
<th>Twinning Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of training courses provided by the twinning project.</td>
<td>The number of training courses provided.</td>
<td>The number of samples collected and tested under the residue surveillance programmes.</td>
</tr>
<tr>
<td>The number of staff trained by the twinning project.</td>
<td>The amount of equipment delivered to the laboratories.</td>
<td>The number of ring tests in which Turkish laboratories participate.</td>
</tr>
<tr>
<td>The number of ring tests in which Turkish laboratories participate.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Official Gazette</th>
<th>MARA reports</th>
<th>GDPC Reports</th>
<th>SANCO Inspections.</th>
<th>TAIEX visits.</th>
<th>MARA reports.</th>
<th>Twinning project reports</th>
<th>University curricula</th>
<th>EU Delegation information</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of training courses provided by the twinning project.</td>
<td>The number of training courses provided.</td>
<td>The number of samples collected and tested under the residue surveillance programmes.</td>
<td>The number of ring tests in which Turkish laboratories participate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The number of staff trained by the twinning project.</td>
<td>The amount of equipment delivered to the laboratories.</td>
<td>The number of ring tests in which Turkish laboratories participate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Member States make proposals to implement the twinning.</th>
<th>Turkish staff are made available for training.</th>
<th>Trained staff continue to work for MARA.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local support is provided</td>
<td>Equipment lists and technical specifications prepared in time.</td>
<td>The laboratories are adequately prepared to receive the equipment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TAIEX visits.</th>
<th>MARA reports.</th>
<th>GDPC Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of training courses provided by the twinning project.</td>
<td>The number of training courses provided.</td>
<td>The number of samples collected and tested under the residue surveillance programmes.</td>
</tr>
<tr>
<td>The number of staff trained by the twinning project.</td>
<td>The amount of equipment delivered to the laboratories.</td>
<td>The number of ring tests in which Turkish laboratories participate.</td>
</tr>
<tr>
<td>The number of ring tests in which Turkish laboratories participate.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 1. The Twinning Project

A classical 24 months duration twinning project is envisaged. The EU twinning partner(s) will assist the MARA in transposing and implementing the EU veterinary control systems in Turkey. Based on the transposition plan, the twinning experts will work together with the expert staff of MARA.

A Pre-Accession Adviser (PAA) will be employed for the 24 months of the twinning project. The PAA will be assisted full time by a local assistant. The PAA will be assisted by one (or more) EU legal expert for 6 months to provide advice and guidance transposing the secondary veterinary legislation and by Local experts (6 months) to provide support services in preparation of the legislation in line with the veterinary acquis. The tasks of the PAA will be:

- Specific Twinning assistance (provided by short term EU experts) and training (both in-country and in Member States) will cover the institutional building aspects related to the three project components, as below described:

  **Disease surveillance, control and eradication** (General Epidemiology, Epidemiology and Diagnosis of Specific Diseases, Laboratory training, Contingency Planning and Border Inspection). **Veterinary Public Health**, and **Animal Welfare**

<table>
<thead>
<tr>
<th>Activities</th>
<th>Means</th>
<th>Costs (€)</th>
<th>Pre-Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Twinning covenant</strong></td>
<td>PAA 300,000</td>
<td></td>
<td>Draft Veterinary Law in the process of adoption</td>
</tr>
<tr>
<td><strong>Pre-Accession Advisor (PAA)</strong></td>
<td>Short term inputs and Training</td>
<td>1,167,000</td>
<td>National Budget allocated for veterinary services has been approved for 2003/2004 period.</td>
</tr>
<tr>
<td><strong>Member State experts</strong></td>
<td></td>
<td></td>
<td>Resources for twinning activities to be borne by the MARA/GDPC are available.</td>
</tr>
<tr>
<td><strong>Trainers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Local experts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Institutions in the Member States</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Office facilities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Transport</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**2. Supply of Products, Materials and Equipment for Disease Control and Residue Analysis**

The supply of epidemiological products (kits, vaccines and other materials) for clinical, serological and entomological surveillance and disease control will be carried out. Epidemiological products and materials are required for the surveillance studies for FMD, Rinderpest, Blue tongue, Sheep and Goat pox, Avian Influenza, Newcastle Disease, BSE, Brucellosis, TB and rabies aiming to examine existence of these diseases to determine the level of regional and national prevalence and the cause and to evaluate the efficiency of vaccination will be executed.

Laboratory equipment will be supplied, installed and tested for the 4 different institutes (Etlik, Bornova and Pendik Veterinary Control and Research Institutes and the FMD Institute). See VI for a detailed but indicative list of inputs.

<table>
<thead>
<tr>
<th>Description</th>
<th>Required</th>
<th>Cost (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kits, vaccines and materials.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory equipment.</td>
<td></td>
<td>7,750,000</td>
</tr>
</tbody>
</table>

Technical specification prepared in time.

Contract signed in time.

The laboratories are adequately prepared to receive the equipment.
3. Veterinary Information System (VIS)

The following activities for implementing a VIS will be undertaken by means of a supply contract (for the hardware) with ancillary services (for the software).

- Setting up a project management structure and preparing a project plan
- Preparation of the institutional infrastructure and detailed systems analysis
- Design of the fully working Identification, Registration and Movement Control system, including all elements.
- Preparation of a detailed specification for the database software.
- Preparation of a detailed specification for the hardware and communications infrastructure for the veterinary information system.
- Procurement of the central database software and other needed software
- Procurement of the hardware at central and regional level;
- General training in the use of computers for staff at regional level.
- Preparation of an Implementation Plan
- Preparation of a Communication Plan
- Adaptation/Customisation of the procured database software to meet the specific Turkish requirements.
- Develop interfaces to other relevant database systems.
- Cleanse and convert data from the current Identification and Registration database to the new database software
- Capture all other required data.
- Preparation of manuals
- Testing, correcting errors and fine-tuning of database software

<table>
<thead>
<tr>
<th>Experts</th>
<th>Software</th>
<th>Computer hardware</th>
<th>Communications equipment</th>
<th>Geographical Positioning equipment</th>
<th>Trainers</th>
<th>5,294,000 €</th>
</tr>
</thead>
</table>

Relevant legislation is in place.

Ear tags are available.

Sufficient staff resources available

Functioning basic infrastructure, e.g. electricity, telephones, etc.

Farmers and livestock industry prepared to collaborate.
- Implement Installation and Communication Plans
- Installation of the applications on the sites of operation
- Training of users and operators located at 1,230 centres in use of the veterinary information system
- Develop user support, fault correction, software maintenance and follow-up contracts.

See Annex VI for a detailed but indicative list of inputs.

|----------------------|---------------------------------------------------------------------------|----------|----------------------------------------|

A report reviewing the TAIEX Strategy and identifying, together with the recipient, 7 long term BIPS to be included in this project

A report will be prepared that describes the civil reconstruction works required at seven selected BIPs (to be identified following the border post strategy study) in order that the staff can undertake full inspection and testing as per the EU requirement. This report will include the following:

- a description of the requirement, in line with EU standards;
- a description of the existing situation at each BIP and how it falls short of the requirement described earlier;
- full Terms of Reference, including site plans for the works to be undertaken and a full list of building works, facilities and equipment to be provided at each BIP (so that the works can be tendered without the need for any further consulting engineering expertise.
• a description of any action that needs to be undertaken or any problems that need solving prior to tendering, e.g. the purchase of land, coordination with other border authorities, etc. An agreed timetable for the resolution of any existing problems or pre-conditions.

• an implementation plan, including timescales and estimated costs;

The upgrade of the selected BIP will then be undertaken on the basis of the technical specification from the above study. All necessary building work, equipment and facilities will be provided.

| Civil works contractor | Building material. | Equipment and facilities | 1.800.000 € | Contract signed in time. Appropriate permissions can be obtained. |
## ANNEX II – DETAILED IMPLEMENTATION CHART

<table>
<thead>
<tr>
<th>Components</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Twinning *</td>
<td>T T</td>
<td>C I</td>
<td>I I</td>
</tr>
<tr>
<td>2. Lab/Epidem Supply **</td>
<td>T T</td>
<td>C I</td>
<td>I I</td>
</tr>
<tr>
<td>Vet. Info. System ***</td>
<td>T T</td>
<td>T T</td>
<td>C I</td>
</tr>
<tr>
<td>BIP Tech. Ass.</td>
<td>P T</td>
<td>T T</td>
<td>T T</td>
</tr>
<tr>
<td>BIP Civil Works</td>
<td></td>
<td>P P</td>
<td>P P</td>
</tr>
</tbody>
</table>

P – Preparation * Tendering will start in October 2002
T – Tendering ** Tendering will start in November 2002 (Detailed TS are in preparation)
C – Contracting *** Tendering will start in January 2003 (Detailed TS are in preparation)
I - Implementation
### ANNEX III: CUMULATIVE CONTRACTING AND DISBURSEMENT SCHEDULE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tr>
<td>Contracted</td>
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<td>15,311,000</td>
<td>17,044,000</td>
<td>17,044,000</td>
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<td>17,044,000</td>
<td>17,044,000</td>
<td>17,044,000</td>
<td>17,044,000</td>
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<td>12,036,400</td>
<td>12,474,733</td>
<td>12,913,067</td>
<td>13,351,400</td>
<td>13,798,733</td>
<td>14,228,067</td>
<td>14,666,400</td>
<td>17,044,000</td>
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</tbody>
</table>
Annex IV – Related Part of the NPAA

4.8.2. Agricultural products

I- Priority description

Animal husbandry

Purposes, Principles and Policies

During the 8th Plan period, the fundamental objective of the animal husbandry sector will be to increase production with the aim of providing society with a sufficient and balanced diet as regards animal proteins. In this respect, work on the breeding of animals will be carried out, production of high quality concentrated animal feed and animal feed products will be increased, the efficiency of the combat against animal diseases and harmful organisms will be improved, and extension services will be developed. In order to meet the requirements of domestic demand and increase production levels to make exports possible, special importance shall be given to animal husbandry. Additionally, modern meat and dairy processing facilities will be extended to the whole country.

With the aim of implementing animal breeding policies, the “Commission for the Breeding of Animals” will be established with the participation of representatives from the relevant institutions, organizations and NGOs, and the existing consultancy boards will be improved and made widespread.

The “General Animal Census” that has not been carried out since 1984, will be carried out in order to put together reliable statistics on animal husbandry. In plants where different types of animal breeding activities are performed, studies to determine the optimum enterprise size will be carried out.

Producers will be encouraged to establish cooperatives, companies and producer unions.

Breeding enterprises will be made widespread, a wide range of technical information and assistance including the issue of contractual breeding will be provided efficiently by public institutions during the breeding, distribution and marketing of animals by these enterprises, and the contribution and involvement of the private sector will be encouraged.

Priority will be given to meet the breeders’ needs for animals for breeding and slaughter from the domestic market, and if needed, breeding bulls, semen, embryos or breeding heifers shall be imported.

In order to meet the high quality raw material requirements of the industry and at the same time to increase the production of red meat and milk, importance will be given to the breeding and production activities of sheep and goats supplying meat and milk, in addition to the breeding and production of cattle.

With the aim of improving apiculture, importance will be granted for the mapping of flora types, flora seasons and capacity, and Apiculture Research Institutes will be structured in a way to serve the whole country.

The training of artificial insemination technicians, milkers and shepherds will be taken seriously.

Poultry production will be increased and the consumption and exports of chicken, turkey and duck meat as well as eggs will be encouraged.
Gene resources for domestic animals will be protected and Animal Gene Bank will be established in this respect.

High quality coarse animal feed production areas that compromise 3 to 3.5 % of the cultivated land will be increased.

Studies to minimize the animal diseases and harmful organisms will be intensified, in addition, the quantity and quality of vaccination, medicine and serum production will be increased and imported products will be inspected seriously.

Moreover, while the medium term measures are being laid down for the development of the milk and dairy processing plants, prioritising the national level and taking measures to protect the Turkish animal husbandry sector and producers from facing future problems will eliminate the risk of Turkey becoming a net importer of raw milk and processed dairy and/or meat products.

Regarding the exports of milk and dairy products, there exist dairy plants that comply with the conditions set forth in the Council Directive No. 92/46/EEC. In order to support these facilities in reaching EU standards and to provide sustainable export opportunities to the EU, relevant studies are ongoing on the Milk Harmonization Action Plan, which has been prepared and submitted to the EU Commission. EU directives on hygiene, the conditions that the plants should fulfil, and food safety criteria have been incorporated into instructions and put into force. A number of these instructions will be published in the Official Gazette in 2001.

4.8.4. Animal health

I- Priority description

a) Current Status

Veterinary services are rendered by the Directorate General for Protection and Control under the Ministry of Agriculture and Rural Affairs, through Provincial and District Directorates, 10 Veterinary Control and Research Institutes, 6 Quarantine Stations and Customs Veterinary Directorates and Provincial Control Laboratory Directorates. These services are based on Law No. 3285 on Animal Health and Surveillance and regulations, instructions and communiques issued in relation to this law. According to Law No. 3285, notification of 25 animal diseases is obligatory. Among these diseases foot and mouth disease, brucella, sheep and goat smallpox, sheep and goat plague, rabies and tuberculosis have priority in the combat against animal diseases. Control methods applied against animal diseases include vaccination, quarantine, control of animal movements, cordon and monitoring of slaughter.

Veterinary Control and Research Institutes based in Ankara, Istanbul, Izmir, Konya, Elazig, Erzurum, Adana and Samsun, the Foot and Mouth Disease Institute based in Ankara, and the Directorate of Chicken Diseases Research and Vaccine Production Institute in Manisa, all operating under the Ministry of Agriculture and Rural Affairs, render diagnostic services for animal diseases, the production and control of vaccines, serums and biological materials, and additionally carry out related research activities. These institutes also conduct various analyses and residue control analyses on foodstuffs of animal origin. In addition to the diagnosis services carried out by these institutes, eight of the Provincial Control Laboratories render services on the diagnosis of animal diseases. The institutes are short of tools, equipment and staffing.

b) EU Acquis

The relevant list of the EU legislation has been laid down in Volume II.

c) Implementing Institution

Ministry of Agriculture and Rural Affairs
d) Final Objective
It is planned to adopt the arrangements on the combat against zoonoses and epidemic animal diseases within the framework of developing a strategy on harmonization with the veterinary legislation of the Community. Moreover, the developments that take place within the EU acquis will be monitored continuously and necessary measures will be taken for harmonisation.

II. Comparison of the EU acquis with the corresponding Turkish legislation and the measures to be taken for implementing the necessary amendments and modifications

a) Corresponding Turkish Legislation
The basic legislation on animal health services is the Law on Animal Health and Surveillance enforced in 1986. There are a number of regulations, instructions and communiqués issued under this law such as:

- Regulation on Animal Health and Surveillance (1989),
- Regulation on the Amendment of Certain Articles of the Regulation on Animal Health and Surveillance (1995),
- Regulation on the Amendment of Certain Articles of the Regulation on Animal Health and Surveillance (1999),
- Regulation on Protection from and Combat Against Gumboro Disease of Poultry (1995),
- Regulation on Self-Employed Veterinarians (1995),
- Regulation on the Employment of Self-Employed Veterinarians in the Combat Against Epidemics (1995),
- Regulation on Expertise of Veterinarians (1995),
- Regulation on Private Veterinary Laboratories (1999),
- Regulation on the Health Control of Hatcheries and Breeding Establishments (1998),
- Regulation on Hatcheries and Breeding Establishments (2000)
- Regulation Amending One Article of the Regulation on Animal Health and Surveillance (1998),
- Regulation on the Procedure and Principles on the Establishment, Commencement, Operation and Inspection of Animal Hospitals,
- Communiqué on the Principles to be followed during the Importation of Certain Veterinary Health Products (1998),
- Communiqué on the Diseases with Obligatory Notification laid down in Article 4 of the Law No. 3285 on Animal Health and Surveillance (1998),
- Communiqué on the Amendment of the Communiqué on the Principles to be followed during the Importation of Certain Veterinary Health Products (1998),
- Instruction on the Combat Against Cattle Tuberculosis (1978),
- Instruction on the Combat Against Brucellosis (1990),
- Instruction on the Combat Against Glanders (1977),
- Instruction on the Combat Against Newcastle Disease (1980),
- Instruction on the Organization, Duties and Operation Principles of Veterinary Control, Research and Production Institutions (1995),
- Communiqué on the Quarantine Conditions Required for the Importation of Livestock for Breeding, Slaughter and Fattening (1996),
- Communiqué on the Importation Cattle, Sheep and Goats for Slaughter and Fattening (96/4) (1996),
- Communiqué on the Importation of Cattle, Sheep and Goat Meat (96/5) (1996),
- Communiqué on the Conditions Required for Issuing Control Certificates for the Importation of Live Chicken for Slaughter, Poultry Meat, Chicken Offals and Eggs (2000/3) (2000),
- Communiqué on the Certificates Required for Issuing Control Certificates for the Importation of Animal Products and Livestock with the exception of Breeding Animals (2000/32) (2000),
- Communiqué on the Principles of Taking of Samples from Veterinary Health Products such as Vaccine, Serum, Dilution Fluid and Biological Material (2000/44),
- Regulation on the Procedure and Principles for the Establishment, Commencement, Operation and Inspection of the Sales Offices, Shelters and Training Sites for Pets. (2000),

b) Necessary Amendments and Modifications in the Corresponding Turkish Legislation
Taking into consideration the development trends in the animal health policies of Turkey and the EU, policies and legislation regarding the issue shall be harmonized continuously.

Corresponding to the EU legislation on animal health, Turkey has Law No. 3285 and the related regulations, instructions and communiqués. However, Law No. 3285 is not completely in harmony with the EU legislation. Therefore, the legislation on animal health shall be harmonized with the relevant EU legislation.

Legislation prepared in 1998 with the aim of establishing and standardizing the rules to be followed during the importation of certain veterinary health products, introduced new arrangements. The harmonization work on this issue is still ongoing.

In order to provide efficient checks at border inspection posts on the clearance of livestock and animal products from the customs, it is necessary to introduce arrangements aiming at the establishment of Quarantine Laboratories in compliance with Community standards.

c) Necessary Institutional Changes
Taking the principle of providing healthy and reliable nutrition for consumers as the starting point, the EU's main objective in the field of veterinary is to protect human and animal health, and as a consequence establish the necessary structure to improve domestic and foreign trade. Community legislation prepared in this regard is principally based on the mutual recognition of the relevant authorities of the member states in order to eliminate veterinary controls in intra-Community trade.

For the effective implementation of the legislation between the central authority and the provinces, a Central Veterinary authority that can overcome the incoherence in authority distribution and coordination should be established within the administrative structure and it should be directly connected to the provinces.

d) Additional Requirements Stemming from Entry into Force of the New Legislation
Currently, a system collecting information on animal health exists in Turkey. This system is run through communication via facsimile, correspondence and telephone between the Provincial Directorates and the Ministry of Agriculture and Rural Affairs. There is a computer system in the Ministry through which overseas connections are established. This system should be extended to cover all Provincial Directorates in the forthcoming period. An information network similar to the system in the Community will be set up as soon as possible to cover the whole country. A computer system will be established to connect all of the veterinary authorities in the country (central units, Institute, provincial control laboratories, provincial and district organizations, customs veterinaries etc.).
Under the scope of the National Residue Control Program, residue-monitoring program on poultry meat is being carried out presently with the participation of Etlik, Pendik and Bornova Veterinary Control and Research Institutes. However, in order to attain the targeted objectives, there is a need for staff training and the improvement of technical infrastructure with regard to tools and equipment.

As required by Community legislation, infrastructural works are in progress on the establishment of a computerised network system linking veterinary authorities throughout the country (ANIMO), a system of external movement control, and a system on identification of animal diseases (ADNS).

e) Objective, Strategy and Future Applications
The main objective is rapid control and eradication of the diseases that create major problems within Turkey’s animal sector. Attainment of the objectives in this regard requires a more efficient utilization of combat services. To this end priority is given to; the reorganization of the structure of veterinary services, the establishment of a computer system that will ensure fast access to reliable information for the services of combat against diseases, the creation and the completion of staff training for the Fund for Combat Against Epidemics, set up with the contributions of producers and the State.

In this respect, the following action plan shall be executed:

1. **Increasing efficiency in the diagnosis of diseases;**
   - Strengthening the institute and laboratories carrying out diagnostic services in terms of tools and equipment,
   - Meeting the qualified staffing requirement,
   - Personnel training on recent and fast diagnostic techniques and ensuring uniformity in methodology,
   - Training of veterinarians on collecting and dispatching diagnostic materials.

2. **Development of emergency plans on combat against contagious diseases;**
   - Strengthening the existing emergency plans for combat against epidemics,
   - Developing emergency plans against diseases without any emergency plan.

Emergency plans shall contain the following elements:

i. **Legal basis ensuring the appropriate authorisation required for the effective control and eradication of diseases,**
ii. **Financing arrangement of the funds required upon the outbreak of diseases,**
iii. **“National Disease Control Centre” providing telecommunications during the outbreak of diseases,**
iv. **Regional Disease Control Centre- regional offices covering a well-defined geographical area ready to operate in cases of emergency,**
v. **Expert teams trained on disease control,**
vii. **Equipment,**
viii. **Guidebooks containing instructions to be followed during cases of emergency,**
av. **Diagnostic laboratories,**
ix. **Vaccination plans,**
x. **Regular training against emergencies for staff at all levels,**
xii. **Dissemination of information – Providing staff and related personnel such as veterinarians, farmers and merchants with information on diseases and requirements to be followed in cases of emergency.**

3. **Supply of sufficient amount and quality of vaccines:**
   - Developing the technology and increasing the capacity of existing vaccine production units,
   - Starting the production or executing a speedy importation of the vaccines not currently produced in Turkey and required for the combat against certain diseases,
- Strengthening the field teams in terms of training capacity and equipment, and increasing the number of people employed.

4. Ensuring an effective coordination:
- Efficient restructuring that will provide communication on veterinary services between the centre and the field,
- Building a network for fast and efficient communication between all of the animal health units,
- Efficient functioning of the Veterinary Advisory Board.

5. Monitoring and Assessment
- Harmonization of Turkish legislation with EU legislation,
- Registration of the animals,
- Control of borders, park and market institutions and animal movements,
- Monitoring,
- Financing.

Technical and financial support for the above mentioned issues are required to successfully implement the services on animal health.

f) Additional Staffing and Training Requirements for the Implementation of Amendments and Modifications
Staff need to be trained on the adoption of the EU’s current veterinary practices. In this respect, a training program is planned.

Veterinary Control and Research Institutes are in need of regular and continuous training, and financial resources in order to obtain the relevant equipment, and provide strong laboratory diagnostic activities. Only after meeting these requirements can important steps be taken to harmonize effectively with the EU on diagnostic and analysis issues. In this framework, the activities on equipment and expert support ongoing for many years shall be accelerated.

III. Financing
Efforts are being made to provide reliable health services under the current conditions. However, even the existing legal obligations cannot be properly executed due to budgetary constraints. Accordingly, a strengthened budget and structuring is required.

Considering that the public budget is insufficient for the combat against animal diseases, it is imperative that the Fund for Combat Against Epidemics, set up by contributions from producers and the State, be founded. The establishment of this fund is among the priorities.

In sum, in order to improve the diagnosis and production services in the institutes and laboratories, financial assistance is required to obtain tools and equipment, and for the training of the staff employed in the institutes, laboratories and in the field. Detailed studies on financing are being conducted. The amount of financing will be identified following the determination of the projects.

Animal Identification System
I- Priority description
a) Current Status

The establishment of an animal identification system and the control of animal movements are crucial for the control of contagious diseases. In fact, the safe conduct of animal movements and trade depends on the establishment of a comprehensive animal identification and registration system. Without a
properly functioning identification and registration system, it will be impossible to include dairy and meat farmers within the direct income support system. Through this identification and registration system, herd books for the animals will be prepared and data will be collected on their reproduction values.

To establish this system Turkish experts must be well informed on the legislation, particularly with respect to the following issues:

- Animal identification and registration system,
- Registration and transfer of the identification data,
- Animal health certificates,
- System on the control of animal movements,
- Organization of veterinary services.

In Turkey, domestic movement certificates are issued on a limited scale for some bovine animals, which have also been registered by the Provincial and District Directorates of the Ministry of Agriculture and Rural Affairs, Breeding Milk Producers Union and other unions (Union for Delivering Services to the Villages and Cooperatives). Moreover, in order to prevent animal smuggling, starting from 13 September 1999 in the provinces of Van and Hakkari bovine animals have been registered by ear tagging, and ovine animals through enumeration by the Ministry of Agriculture and Rural Affairs.

b) EU Acquis
Relevant EU legislation is listed in Volume II.

c) Implementing Institution
Ministry of Agriculture and Rural Affairs

d) Final Objective
The objectives are; to ensure the access of veterinary controls to farm and animal registrations, to establish an animal movement control system, and to set up and implement a computer system for the registration and transfer of the animal identification data.

II. Comparison of the EU acquis with the corresponding Turkish legislation and the measures to be taken for implementing the necessary amendments and modifications

a) Corresponding Turkish Legislation

The Regulation on the Identification, Registration and Monitoring of the Ruminant Bovine Animals was published in the Official Gazette No. 24069 of 4 June 2000. This regulation aims to provide a more effective control of animal diseases and animal movements; support the efficient functioning of eradication programs at both national and regional level; and at the same time keep, update and monitor regularly the necessary health and breeding registration records. There are provisions within the scope of the said regulation on the determination and registration of animal husbandry enterprises together with the identification and registration of ruminating animals therein, and their transfer between these enterprises. This regulation has been prepared in accordance with the EU legislation.

b) Necessary Investments
A database on the identification and registration of bovine animals shall be set up at the Directorate General for Protection and Control and in the Provincial Directorates. In this respect, it is necessary to establish a computer system, to bring about the relevant software program, to distribute the program to the Provincial Directorates, and to train the users. Financing is required for establishing the database and computer system at the central unit (Directorate General for Protection and Control), for developing the
software program, and supporting the Provincial Directorates of the Ministry regarding staff training and extension services.

III. Time schedule
Studies on the development of the Animal Identification System will be initiated in the short term and completed in the medium term.

IV. Financing
Financial assistance of $105,000 is required in the first stage to obtain computers, software, training, extension services and other items necessary for the establishment of the aforementioned system. Activities to set up the system have been initiated with the expected support of domestic or foreign resources.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Amount</th>
<th>Unit Price ($/unit)</th>
<th>Total Price ($)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
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<td><strong>Computer</strong></td>
<td>2</td>
<td>2,500</td>
<td>5,000</td>
<td>Central Unit</td>
</tr>
<tr>
<td><strong>Database Software</strong></td>
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<td>3,000</td>
<td>3,000</td>
<td>Central Unit</td>
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<tr>
<td><strong>Software</strong></td>
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<td>5,000</td>
<td>5,000</td>
<td>Central Unit and Provincial Directorates of the Ministry</td>
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<td><strong>Computer</strong></td>
<td>81</td>
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<td>89,100</td>
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<td>1,500</td>
<td>Towards staff employed at Ministry and the Provincial Directorates</td>
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<td><strong>Extension Services</strong></td>
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<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>105,600</td>
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</tr>
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</table>

**Consumer Protection and Health**

I. Priority Description

a) Current Status

Although Association Council Decision No 1/95 did not set Turkey any obligations regarding consumer protection, the Law on the Protection of Consumers No 4077 of 23 February 1995 was enacted prior to the Customs Union and was enforced on 8 September 1995 within the perspective of full membership.

In addition to Law No 4077 on the Protection of Consumers, Decree Law No 560 “Concerning The Production, Consumption and Inspection of Foodstuffs” and related By-laws and Communiqués covering food safety issues aim to enhance consumer protection.

The Objectives section of Decree Law No 560 states “... with a view to ensuring the public have access to good nutrition and the protection of public health as well as the interests of producers and consumers, the objective is to determine the properties of all kinds of raw and supplementary materials used in the production of foodstuffs, finished and semi-finished foodstuffs, to state the acceptable level
of hygiene and technical conditions for business facilities producing foodstuffs, to carry out inspection activities and to set the principles and procedures pertaining to the foodstuff related services”. Similarly, the Objectives section of the By-law on The Turkish Food Codex includes the statement “… to protect the interests of producers as well as public health …”.

Labelling information and advertising principles for consumer protection are laid down within the scope of Decree Law No 560 and its related By-law as well as the By-law on the Turkish Food Codex. Penal sanctions to be applied against those not complying with the principles of consumer health, food safety, labelling and advertising are stated in Law No 4128.

The main objective of the food inspections made under Decree Law No 560 is to protect consumer health. The main concern is to supply reliable foodstuffs to the consumers by ensuring effective food safety. A series of food safety measures have been set by the Food Safety Action Plan prepared by the Ministry of Agriculture and Rural Affairs with the aim of providing the consumers with reliable foodstuffs. Measures are taken through a continuous monitoring of the additives, residues and contaminants.

b) EU Acquis
The related list of the EU acquis is given in Volume II.

c) Implementing Institution
The Directorate General for the Protection of Consumers and Competition established under the Ministry of Trade and Industry is the primary responsible authority. However, depending on the attributes of the subject, the Ministry of Health, the Ministry of Environment, the Ministry of Agriculture and Rural Affairs, the Ministry of National Education, the Turkish Standards Institute, and the municipalities can be the responsible authority or the relevant body.

The Undersecretariat of Foreign Trade will make the necessary notifications to the EU Commission in line with Directive No 92/59/EEC.

The Consumer Council, Board of Advertisement and the Arbitration Committee for Consumer Problems also continue their activities in this regard.

d) Final Objective
Adoption and implementation of the related EU acquis.
II- Comparison Of The EU Acquis With The Corresponding Turkish Legislation And The Measures To Be Taken For Implementing The Necessary Amendments And Modifications

a) The Corresponding Turkish Legislation

- Decree Law No 560 On the Production, Consumption and Inspection of Foodstuffs, related By-laws and Product Communiqués

Within the framework of Decree Law No 560, the Directives of the EU on Consumer Health, together with the corresponding Turkish legislation and the harmonisation activities are given below.

<table>
<thead>
<tr>
<th>No</th>
<th>Directive</th>
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<td>1</td>
<td>84/450/EEC</td>
<td>Concerning misleading advertisements</td>
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<td>Decree Law on the production, consumption and inspection of foodstuffs” No 560 published in the Official Gazette of 28 June 1995 and No 22327 Regulation on the production, consumption and inspection of foodstuffs published in the Official Gazette of 9 June 1998 and No 23367</td>
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<table>
<thead>
<tr>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkish Legislation</td>
</tr>
</tbody>
</table>

39
In accordance with Article 14 of Decree Law No 560, it is prohibited to use deceptive expressions and statements on labels, to trade foodstuffs using misleading packages, to advertise foodstuffs with misleading descriptions, and other similar statements either generally or individually; and to use any publications, articles or written statements in the advertisements in a way to encourage their consumption for the treatment of any disease. Furthermore, the principles for broadcasting advertisements are defined under the By-law published on 9 June 1998.

<table>
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<tr>
<th>2</th>
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<tr>
<td>Explanation</td>
<td>By-law on the production, consumption and inspection of foodstuffs and the related communiqués published in the Official Gazette of 9 June 1998 and No 23367</td>
<td>Turkish Food Codex (TGK) published in the Official Gazette of 16 November 1997 and No 23172.</td>
</tr>
<tr>
<td></td>
<td>Work on food safety is being conducted within the scope of Decree Law No 560, the By-law on the production, consumption and inspection of foodstuffs, the related communiqués and the Turkish Food Codex.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3</th>
<th>97/579/EEC</th>
<th>Concerning the establishment of a scientific committee for the health and food safety of the consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkish Legislation</td>
<td>...</td>
<td>The Committee was set up by the Council of Ministers' Decree of 2 March 2001 and will be activated as soon as possible</td>
</tr>
<tr>
<td>Explanation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

f) Necessary Investments
Under the scope of harmonisation activities, financial support is required for the translation of the acquis, raising awareness amongst consumers, establishing testing and inspection centres by public institutions and organisations, as well as for market surveillance and inspection activities.

III- Time Schedule
Short Term

It is envisaged that the Draft Law Amending the Law on the Protection of Consumers No 4077 and the Draft Law on the Preparation and Implementation of the Technical Legislation on Products (the Framework Law) will be enacted by the end of 2001.
Annex V – Status Report for some of the Significant Animal Diseases in Turkey

1. Rinderpest. Since 1996, there has been no notification of this disease in the country. In 2002 Turkey applied for Free of Disease Declaration. The rules of the Office International Des Epizooties are respected (no vaccination program applied and active clinical and serological surveillances are carried out). Currently 5.000.000 doses of vaccines are stored to be used in case of a Rinderpest epidemic.

2. Foot and Mouth Disease (FMD). Occurrence of this disease is endemic. Observed virus serotypes of foot and mouth disease in Turkey are A, O and Asia 1, the latter two types have been more widely observed in 2000 and 2001. In order to prevent the entrance of new virus types into Turkey, a monitoring program has been introduced in the border regions. Also the restriction of animal and animal product movements, quarantine, intensive vaccination programs and active monitoring and surveillance programs have been introduced. A vaccination campaign is carried out for bovine animals twice a year. In case of outbreaks, a vaccination program is applied in the focus and its vicinity. Due to the insufficiency in the vaccine production and unwillingness of the farmers, the vaccination of the sheep cannot be carried out under a nationwide program. Diagnosis, research and vaccine production services are carried out by Foot and Mouth Disease Institute.

3. Blue Tongue. Blue Tongue disease is observed sporadically in some regions. The disease that has not been observed for a long time has been detected in Thrace Region in 1999. The types of the virus were found to be as Blue Tongue Virus Serotype 4,9 and 16 in the samples that were sent to the World Reference Laboratory. In Turkey, vaccines against type 4 are produced. Although there is a sufficient infrastructure to produce polyvalent vaccine, the production cannot be realized since the strain cannot be provided. Intensive vaccination will be carried out in Greek and Bulgarian Border Regions if the production of polyvalent vaccine is realized. Furthermore, there is a need for an international study for the vectoral combat.

4. Peste des petits ruminants (PPR, Sheep and Goat Influenza). Has been added to the list of compulsory notifiable diseases. The first case was reported in Eastern Anatolia Region in September 1999 and the disease occurs epidemically in some other regions. Some measures such as vaccination, cordon, quarantine, disinfection and control of animal movements have started. In case of an outbreak, the infected sheep are vaccinated. The homolog attenue vaccine that is currently used is imported. Studies for domestic production are proceeding and intensive vaccinations are planned when the sufficient vaccine production is attained.

5. Sheep and Goat Pox. Outbreaks intensify in some certain regions of Turkey. Protective vaccination studies are carried out against the disease especially in border regions and high density sheep population.

6. Newcastle Disease. Vaccination is normally carried out in the large integrated poultry production establishments. It is observed rarely in some regions where traditional poultry production prevails.

7. Avian Influenza. Although there is no notified case of the disease up to date in Turkey, its notification is compulsory and due to the cases observed in the neighbouring countries recently, a comprehensive direction containing all necessary measures has been prepared and distributed to all related units in the Ministry.
8. **Bovine Spongiform Encephalopathy (BSE).** As of 2001 inspection and monitoring of samples randomly taken from dead or slaughtered cattle showing neurological symptoms and slaughtered cattle at the age of 30 months or above, has been initiated. Histopathology, immunopathology, and Elisa, are used for the diagnosis. No positive results have been obtained from the inspected samples.

9. **Bovine and Ovine Animal Brucellosis.** A control program is being implemented at national level. Intensive young animal vaccination is realized since 1984. Intensive vaccination programs are carried out for sheep brucellosis and for cattle brucellosis respectively in 55 and 48 provinces where prevalence is found to be over 1% of serological examinations performed nationwide in 1999. In addition, in the vicinity of the infected areas, adult vaccination programs are also carried out.

10. **Bovine Tuberculosis.** Although there is no national eradication program for this disease, a backward surveillance program is carried out when the disease is detected in the slaughterhouses. Also screening programs are carried out in the establishments that export milk to the EU.

11. **Rabies.** This disease is mainly detected in cats and dogs but also in wild life. As a result of laboratory analysis, the disease agent was found to be the stray dog virus. An intensive vaccination campaign is carried out for cats and dogs throughout the country. The oral vaccination programs will be initiated for Aegean Region and Istanbul province for wild life and stray dogs. Sterilization, vaccination and ownership programs are carried out in cooperation with the municipalities and non-governmental organizations.
## Kits and Materials for Clinical, Serological, Entomological and Disease Surveillance & Testing

### Clinical and serological surveillance of Rinderpest
- **Estimated COST (€)**: 100 000
  - Rinderpest Antibody Detection kit
  - Injectors, injector needles, cold chain equipment, vacuum tubes, etc.

### Clinical and serological surveillance and typing of Blue Tongue
- **Estimated COST (€)**: 225 000
  - Antigen detection kit against BT
  - Antibody detection kit against BT
  - Blue Tongue strain for isolation
  - Hyper Immune sera for serotyping (24 serotype against BT)

### Clinical and serological surveillance of Avian Influenza
- **Estimated COST (€)**: 175 000
  - Specimen collection
  - Suspected serum samples collection
    - Laboratory test equipment
    - Injectors, injector needles, cold chain equipment, vacuum tubes, petri dishes, agar, etc.
    - Agar gel immuno diffusion antigen
    - Positive and negative AI Serum

### Surveillance of BSE
- **Estimated COST (€)**: 200 000
  - Specimen collection
  - Suspected serum samples collection
    - Laboratory tests
  - Cold chain equipment

### Clinical and serological surveillance of Brucellosis
- **Estimated COST (€)**: 175 000
  - Providing suspicious material
  - Providing blood serum samples
  - Laboratory test equipment
  - Rose Bengal Plate Test Antigen (400 bottles (10 ml))
  - Brucellosis Complement Fixation Test Antigen (30 bottles (1 ml))
  - Brucellosis Positive Serum (OIEISS- OIE International standard serum 30 bottles)
  - Hemolysin- Ambocepter (20 bottles)
  - Veronal Buffer Tablet (Oxoid) (100 packages)
  - Blood serum tubes and containers (100.000 ependorf tube, 4000 container with 25 serum capacity)
  - 8 Digital Waterbath (+20? C +/- 1?)
  - 8 Deep Freezers (150 litres)
  - Vacuum tube (100 000 pieces)
  - Vacuum tube needle (100 000 pieces)
  - Vacuum tube holder (25 pieces)
  - Single channel automatic micropipette (5-50 µl) (16 pieces)
  - Single channel automatic micropipette (50-200 µl) (16 pieces)
  - Single channel automatic micropipette (200-1000 µl) (16 pieces)
  - 8 channel automatic micropipette (5-50 µl) (16 pieces)
| 8 channel automatic micropipette (50-250 µl) (16 pieces) |
| 12 channel automatic micropipette (5-50 µl) (16 pieces) |
| 12 channel automatic micropipette (50-250 µl) (16 pieces) |
| Tips for all types of pipettes (4 package for each 4X1000) |
| Microplate (U based) polystyrene (10,000 pieces) |
| Microplate sealing band (200 Boxes) |
| Reagent distribution pool (40 packages 40X10 pieces) |
| Laboratory clock (16 pieces) |

**Brucellosis detection Kit**

**Oral Rabies Vaccines**

For vaccination in provinces in Aegean Region and in Istanbul Province (100,000 x 0.80€)

**Paranteral Rabies Vaccines of farm animals**

For vaccination in provinces in Aegean Region (200,000 x 1€)

**TOTAL 1,155,000**

---

**Laboratory Equipment**

**ETLIK Veterinary Control and Research Institute**

**LEVEL 3 LABORATORY EQUIPMENT LIST**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biosecurity System Unit (Ulpa Filtration and UV Technology)</td>
<td>157,050</td>
</tr>
<tr>
<td>CO2 Incubator</td>
<td>7,273</td>
</tr>
<tr>
<td>Autoclave</td>
<td>7,273</td>
</tr>
<tr>
<td>Precise balance</td>
<td>1,818</td>
</tr>
<tr>
<td>Membrane Filtration System</td>
<td>5,455</td>
</tr>
<tr>
<td>pH Meter (digital)</td>
<td>727</td>
</tr>
<tr>
<td>Heater Magnetic Mixer</td>
<td>364</td>
</tr>
<tr>
<td>Liquid Nitrogen Containers</td>
<td>1,818</td>
</tr>
<tr>
<td>Roller Incubator</td>
<td>3,636</td>
</tr>
<tr>
<td>Incubator (37°C-with shaking system)</td>
<td>1,455</td>
</tr>
<tr>
<td>Laminar Flow Cabins (Class 2)</td>
<td>18,182</td>
</tr>
<tr>
<td>2 Deep Freezers (-20°C and -80°C)</td>
<td>25,455</td>
</tr>
<tr>
<td>Water Distillation and Deionisation Equipment</td>
<td>9,091</td>
</tr>
<tr>
<td>Homogenizer</td>
<td>2,727</td>
</tr>
<tr>
<td>ELISA reading System</td>
<td>32,727</td>
</tr>
<tr>
<td>Refrigerator (2 doors)</td>
<td>909</td>
</tr>
<tr>
<td>Waterbath</td>
<td>455</td>
</tr>
<tr>
<td>Washing System for pipettes and dirty apparatus</td>
<td>1,818</td>
</tr>
<tr>
<td>ELISA Plate Washing System</td>
<td>909</td>
</tr>
<tr>
<td>Chemicals, glass and disposable equipments, etc.</td>
<td>36,364</td>
</tr>
<tr>
<td>Ice flaking machine</td>
<td>909</td>
</tr>
<tr>
<td>Incubator for eggs</td>
<td>4,545</td>
</tr>
<tr>
<td>Water bath with shaker</td>
<td>3,636</td>
</tr>
<tr>
<td>US-VIS Spectrophotometer</td>
<td>8,636</td>
</tr>
<tr>
<td>UV Transilluminator</td>
<td>1,136</td>
</tr>
<tr>
<td>Microwave Oven</td>
<td>545</td>
</tr>
</tbody>
</table>
Dry Ice Machine 455
Vacuum Pump 909
7 Air Ventilation and Climatisation Units 140,000
Biosecurity System (Laminar blow Hepa pleniums Absorption aperture and filter Automation system Air-lock door set Air flow and shower system Panel wall system, etc.) 160,000
TOTAL 636,277

ETLIK Veterinary Control and Research Institute
FOR NATIONAL RESIDUE PROGRAMME HORMONE ANALYSIS LABORATORY

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GC/MS (for Antithroidal substance analysis)</td>
<td>129,032</td>
</tr>
<tr>
<td>Ultrathorax Apparatus</td>
<td>129,03</td>
</tr>
<tr>
<td>Reactiterm Evaporator</td>
<td>25,806</td>
</tr>
<tr>
<td>Deep Freezer (-80°C)</td>
<td>32,258</td>
</tr>
<tr>
<td>Blender</td>
<td>1,290</td>
</tr>
<tr>
<td>TOTAL</td>
<td>201,289</td>
</tr>
</tbody>
</table>

ETLIK Veterinary Control and Research Institute
FOR NATIONAL RESIDUE PROGRAMME TOXICOLOGY LABORATORY

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 GC/MS (for residue analysis)</td>
<td>258,065</td>
</tr>
<tr>
<td>GC</td>
<td>77,419</td>
</tr>
<tr>
<td>Bench type centrifuge</td>
<td>9,677</td>
</tr>
<tr>
<td>Water Distillation and Deionisation Equipment</td>
<td>13,548</td>
</tr>
<tr>
<td>Dishwasher</td>
<td>1,935</td>
</tr>
<tr>
<td>Gas Nitrogen Generator</td>
<td>9,677</td>
</tr>
<tr>
<td>Hydrogen Generator</td>
<td>129,03</td>
</tr>
<tr>
<td>Deep Freezer (-80°C)</td>
<td>32,258</td>
</tr>
<tr>
<td>Blender</td>
<td>1,290</td>
</tr>
<tr>
<td>3 Macro Pipetting Controller</td>
<td>484</td>
</tr>
<tr>
<td>Dessicator</td>
<td>3,226</td>
</tr>
<tr>
<td>TOTAL</td>
<td>420,482</td>
</tr>
</tbody>
</table>

Improvement of Laboratory Production Infrastructures

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration equipment for the Production of FMD Vaccine</td>
<td>275,000</td>
</tr>
<tr>
<td>Automatic Vaccine Allocation Unit the Production of FMD Vaccine</td>
<td>550,000</td>
</tr>
<tr>
<td>Production of Blue Tongue Vaccine Etlik Central VCRI</td>
<td>170,000</td>
</tr>
<tr>
<td>purchase of homologous master strain or strains</td>
<td></td>
</tr>
<tr>
<td>purchase of master seed of virus and cell for working banks</td>
<td></td>
</tr>
</tbody>
</table>
## BORNOVA Veterinary Control and Research Institute

### TOXICOLOGY LABORATORY EQUIPMENT LIST FOR RESIDUE ANALYSIS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPLC+Pickerin (Flourescent Detector) Sulfonamide analysis in animal products</td>
<td>58065</td>
</tr>
<tr>
<td>GC/MS (Confirmation of the positive results for antibiotic analysis)</td>
<td>119355</td>
</tr>
<tr>
<td>LC/MS (Confirmation of the positive results for sulfonamide and other antibiotic analysis)</td>
<td>119355</td>
</tr>
<tr>
<td>GC (Chloramphenicol analysis in animal products)</td>
<td>32258</td>
</tr>
<tr>
<td>Centrifuge (Refrigerated, 15.000 rpm, graded, harmonious with rpm and g speed)</td>
<td>29032</td>
</tr>
<tr>
<td>Rolling Evaporator (will include waterbath and nitrogen gas connection)</td>
<td>1935</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>360000</strong></td>
</tr>
</tbody>
</table>

---

## BORNOVA Veterinary Control and Research Institute

### FOOD CONTROL LABORATORY EQUIPMENT LIST FOR RESIDUE ANALYSIS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Incubators</td>
<td>5484</td>
</tr>
<tr>
<td>Refrigerated Centrifuge</td>
<td>5806</td>
</tr>
<tr>
<td>Waterbath</td>
<td>968</td>
</tr>
<tr>
<td>Autoclave</td>
<td>1613</td>
</tr>
<tr>
<td>Membrane Filtration System</td>
<td>1290</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15161</strong></td>
</tr>
</tbody>
</table>

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## BORNOVA Veterinary Control and Research Institute

### VACCINE CONTROL LABORATORY EQUIPMENT LIST FOR RESIDUE ANALYSIS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microbiological mediums</td>
<td>11,291</td>
</tr>
<tr>
<td>Chemicals</td>
<td>4,839</td>
</tr>
<tr>
<td>Biologicals</td>
<td>12,903</td>
</tr>
<tr>
<td>Membrane Filters</td>
<td>58,065</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>484</td>
</tr>
<tr>
<td>2 Deep Freezers</td>
<td>645</td>
</tr>
<tr>
<td>2 Liquid Nitrogen containers</td>
<td>3,225</td>
</tr>
<tr>
<td>Centrifuge/Fixed rotor, 5000 rpm</td>
<td>2,258</td>
</tr>
<tr>
<td>PC and printer</td>
<td>1,290</td>
</tr>
<tr>
<td>Sterile Cabin, Horizontal, double</td>
<td>5,806</td>
</tr>
<tr>
<td>CO2 Incubator with air jacket, 180 litres</td>
<td>6,452</td>
</tr>
<tr>
<td>Automatic Pipette set</td>
<td>2,258</td>
</tr>
<tr>
<td>Refrigerated Centrifuge</td>
<td>12,903</td>
</tr>
<tr>
<td>2 x De-ionising Water Equipment</td>
<td>10,323</td>
</tr>
<tr>
<td>Bidistilled Water Equipment</td>
<td>2,581</td>
</tr>
<tr>
<td>2 Safety Cabin/ Class II-Vertical</td>
<td>19,355</td>
</tr>
<tr>
<td>Incubator</td>
<td>1,613</td>
</tr>
<tr>
<td>2 Electronic balances</td>
<td>968</td>
</tr>
<tr>
<td>Water Bath</td>
<td>484</td>
</tr>
<tr>
<td>2 Microbiological Preservation Container</td>
<td>20,645</td>
</tr>
<tr>
<td>Ultra Centrifuge, 10000-40000 rpm</td>
<td>77,419</td>
</tr>
<tr>
<td>Sterilizer</td>
<td>6,452</td>
</tr>
<tr>
<td>TOTAL</td>
<td>262,258</td>
</tr>
</tbody>
</table>

**PENDIK Veterinary Control and Research Institute**

<table>
<thead>
<tr>
<th>Residue Monitoring Laboratory</th>
<th>Cost (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC-MS/MS Liquid Chromatography- Mass-Mass Spectrometer</td>
<td>350,000</td>
</tr>
<tr>
<td>GC MS/MS Gas Chromatography- Mass-Mass Spectrometer</td>
<td>120,000</td>
</tr>
<tr>
<td>LC-MS, Liquid Chromatography- Mass Spectrometer</td>
<td>150,000</td>
</tr>
<tr>
<td>GC- MS Gas Chromatography- Mass Spectrometer</td>
<td>70,000</td>
</tr>
<tr>
<td>3 Homogenizers</td>
<td>15,000</td>
</tr>
<tr>
<td>2 Deep Freezers</td>
<td>20,000</td>
</tr>
<tr>
<td>Benchtop refrigerated centrifuge</td>
<td>30,000</td>
</tr>
<tr>
<td>3 Sample Concentrators</td>
<td>15,000</td>
</tr>
<tr>
<td>4 Vacuum monitoring systems</td>
<td>8,000</td>
</tr>
<tr>
<td>4 Vortex mixers</td>
<td>6,000</td>
</tr>
<tr>
<td>2 Heidolph shaker units</td>
<td>10,000</td>
</tr>
</tbody>
</table>

**794,000**

**Toxicology Laboratory**

| Deep freezer                | 10,000  |
| Microwave burning unit      | 5,000   |
| 2 Dish Washers              | 20,000  |
| 5 Chemical Cabins           | 20,000  |

**55,000**

**Drug Quality Control Laboratory**

| LC-MS                        | 150,000 |
| 2 HPLC-UV/RI ded             | 100,000 |
| Potentiometer               | 20,000  |
### Improvement of Laboratory Diagnosis Infrastructures
#### Modernization of Diagnosis Control and Experimental Animal Units of FMD Institute

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Cost (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Air Ventilation and Climatisation Units</td>
<td>140,000</td>
</tr>
<tr>
<td>Power Supply to protect electrical equipment against electricity failures</td>
<td>100,000</td>
</tr>
<tr>
<td>Power Supply to protect electrical equipment against electricity failures</td>
<td>200,000</td>
</tr>
<tr>
<td>Pure steam generator (316 stainless steel) (Capacity 400 kg/hour.)</td>
<td>100,000</td>
</tr>
<tr>
<td>Refrigerated centrifuge (6 litre capacity, 6,000 rpm)</td>
<td>120,000</td>
</tr>
<tr>
<td>Laminar Flow Cabinet (WxL: 2x3m) 3 adet</td>
<td>90,000</td>
</tr>
<tr>
<td>Electricity generator (1400 kVA)</td>
<td>250,000</td>
</tr>
<tr>
<td>Autoclave (1.000 L one door)</td>
<td>50,000</td>
</tr>
<tr>
<td>Autoclave (1.000 L double door)</td>
<td>50,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,100,000</strong></td>
</tr>
</tbody>
</table>

### Improvement of Laboratory Diagnosis Infrastructures
#### Ultra Filtration System Unit for the Production of FMD Vaccine

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Cost (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A vibration dynamic membrane separation system</td>
<td>420,000</td>
</tr>
<tr>
<td>The PUF-200RL.Process System</td>
<td>140,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>560,000</strong></td>
</tr>
</tbody>
</table>

### Veterinary Information System

<table>
<thead>
<tr>
<th>Item</th>
<th>ESTIMATED COST (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hardware</strong></td>
<td></td>
</tr>
<tr>
<td>3 Servers. 1 main server, 1 backup server and 1 communications server. All complete with disk unit, power supplies, monitors. All 8 x 900 MHz, with UNIX, the main and backup servers running the Oracle DBMS.</td>
<td>300,000</td>
</tr>
<tr>
<td>One workstation (PC, modem and printer) for 1,230 units (10 central, 81 provincial stations, 849 district stations, 25 BIPs, 10 institutes, 25 state farms, 80 markets, and 150 abattoirs) @ 1.200 € each.</td>
<td>1,476,000</td>
</tr>
<tr>
<td>Establishment of internet server connection in epidemiology units of 10 Institute Directorates</td>
<td></td>
</tr>
<tr>
<td>- 128 kbs Frame Relay Internet Connection (unlimited) (10 units) (10 x 6750 €)</td>
<td>159,000</td>
</tr>
<tr>
<td>- Router (10) (10 x 2250 €)</td>
<td></td>
</tr>
<tr>
<td>- 24 port switch (10) (10 x 1150 €)</td>
<td></td>
</tr>
<tr>
<td>- Server (10) (10 x 5750 €)</td>
<td></td>
</tr>
<tr>
<td>81 x 12 port switches for the provinces @600 each = 48,600</td>
<td>48,600</td>
</tr>
<tr>
<td>920 Global positioning transponders @120 each</td>
<td>110,400</td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>2,094,000</strong></td>
</tr>
<tr>
<td><strong>Software Application</strong></td>
<td></td>
</tr>
<tr>
<td>Application database software for animal identification, registration, movement</td>
<td><strong>1,700,000</strong></td>
</tr>
<tr>
<td>Support from Software Supplier</td>
<td>200,000</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Technical Assistance and Training</strong></td>
<td></td>
</tr>
<tr>
<td>Technical Assistance to implement the Animal Identification, Registration, Movement Control and Veterinary Surveillance system.</td>
<td>800,000</td>
</tr>
<tr>
<td>1 full-time Project Manager</td>
<td></td>
</tr>
<tr>
<td>3 half-time Computer systems specialists</td>
<td></td>
</tr>
<tr>
<td>3 half-time identification, registration and veterinary experts</td>
<td></td>
</tr>
<tr>
<td>Training end users of the database application (from 1230 separate locations). Training to take place in the 81 provinces</td>
<td>500,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>5,294,000</td>
</tr>
</tbody>
</table>

**Breakdown of Inputs for the BIP Technical Assistance (consulting engineering and supervision of works - 800,000)**

**International Experts**
- Team Leader Engineer/Architect: 20 Months
- Veterinary Border Control Expert: 4 Months
- Engineer/Architect Resource Efficiency Expert: 8 Months

**Local Experts**
- Deputy Team Leader: 20 Months
- Computer Assisted Design Operators (2): 12 Months
- Project Assistance: 14 Months
- Interpretation/Translation: 14 Months
ORGANISATION STRUCTURE OF THE GENERAL DIRECTORATE PROTECTION AND CONTROL

General Director

Deputy General Director

Co-ordination Section

Budgeting and Information Section

Foreign Relation Section

Deputy General Director

Plant Diseases Combat Section

Support of Agricultural Combat Section

Supervision of Application Section

Deputy General Director

Plant Protection Department

Deputy General Director

Plant Quarantine and Seed Services

Seed Registration Certification Section

Deputy General Director

Plant Quarantine and Seed Services

Plant Quarantine and Seed Services

Deputy General Director

Feed and Food Registration Department

Feed Registration and License Section

Deputy General Director

Public Health Department

Co-ordination Department

Meat Plant Inspection and Registration Section

Protection from Zoonoses Disease Section

Provincial Control Laboratories Section

Deputy General Director

Drug and Equipment Department

Drug and Equipment Control Section

Veterinary Drug Section

Plant Drug Section

Deputy General Director

Animal Movement and Quarantine Department

Animal Quarantine and Quarantine Section

Animal Movements Control Section

Quarantine Section

Deputy General Director

Animal Health Department

Animal Diseases Combat Section

Deputy General Director

Animal Health Department

Animal Health Department

Animal Health Department