STANDARD SUMMARY PROJECT FICHE

Project number: TR 0203.06
Twinning number: TR02-AG-02

1. Basic Information

1.1. Désirée Number
1.2. Title Support to Turkey’s alignment to the EU acquis in the
Phytosanitary Sector
1.3. Sector AG
1.4. Location TURKEY

2. Objectives

2.1. Overall Objective(s)
To align the Turkish system to the EU Phytosanitary legislation and practices with
regard to plant health, quarantine, pesticide registration and residues so as to improve
the overall quality standards and safety of plant and plant protection products in
Turkey. For the purposes of this document the term “Phytosanitary Legislation” will
refer to the activities mentioned above.

2.2. Project purpose
- To upgrade the technical infrastructure of the Ministry of Agriculture and Rural
Affairs (MARA) and its services in order to undertake the priorities for EU
alignment and implement the reforms identified in the current Accession
Partnership and the National Programme for the Adoption of the Acquis (NPAA)
with regard to the phytosanitary sector.
- To strengthen the legal and institutional capacity of the Ministry of Agriculture
and Rural Affairs (MARA) and its services to transpose the rules and practices of
EU phytosanitary sector.

2.3. Accession Partnership and NPAA priority
- Reference to AP:
  - Short term priorities: “establish an appropriate alignment strategy for plant
    health Community legislation with first priority the harmonisation of
    legislation to combat plant diseases and upgrade enforcement capacity, in
    particular of laboratory testing, inspection arrangements and establishments”;
  - medium term priorities: “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”
- Reference to NPAA:
  - Short term priorities:
    - Section 4.8.1. General “establishment of an appropriate alignment strategy
      for plant health legislation of the Community with first priority the
harmonisation of the legislation to combat plant diseases; improvement of enforcement capacity, in particular of laboratory testing, inspection arrangements and establishments”

- Section 4.8.3 Plant Health: “transposition of Council Directives 69/464/EEC, 69/465/EEC, 93/85/EEC and 98/57/EC, amendment in current Regulation on Agricultural Quarantine with regard to informing the exporter country in cases where imported plant or plant products are found, after the application of relevant controls, to not be in compliance with the conditions, or contaminated with harmful organisms.”

o Medium term priorities:
  - Section 4.8.1. General “to complete preparations for the acquis in agricultural and rural development policies; to modernise food-processing establishments (meat, dairy processing plants) in accordance with the EU hygiene and public health standards; to establish testing and diagnostic facilities”
  - Section 4.8.3 Plant Health: “establishment of plant passport system, registration and plant health controls for potato and citrus fruit producers (with the exception of seed production)”

The related parts of the NPAA are available in Annex IV.

2.4. Contribution to the National Development Plan

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

3. Description

3.1. Background and justification

With the aim of meeting EU requirements in the phytosanitary field, Turkey is envisaged to harmonise its legislation with the EU phytosanitary legislation, train the staff on EU phytosanitary legislation and procedures, upgrade the equipment of the laboratories to EU standards, adjust the existing system structures to EU levels, including border inspection posts and improve the administrative capacity. This project will contribute to reach these objectives. The project includes the following components:

- Plant quarantine (including border inspection posts -BIP) component;
- Plant health (including potato diseases) component;
- Pesticide registration and residue analysis component.

1) Plant quarantine (including border inspection posts -BIPs) component

Plant protection activities are implemented on the basis of the Law on Plant Protection and Quarantine of 1957, which has been prepared in accordance with IPPC 1951. The Agricultural Quarantine Regulation of 1991, which describes import and transit matters is based on related EU directives, on Council Directive No. 77/93/EEC in particular. Taking into consideration of various developments such as international
trade, new plant species and applications, and the harmonisation process the
regulation was required to be updated. For this purpose, a new agricultural quarantine
regulation is prepared recently in accordance with Council Directive No 2000/29. The
Regulation was published in the Official Gazette of July 3, 2002, No: 24804 and will
enter into force 3 January 2003.

Plant Quarantine Services function under the General Directorate of Protection and
Control and are responsible for quarantine applications in Turkey. In order to carry
out import and export quarantine applications, there exist seven Plant Quarantine
Services. The services based in Istanbul, Izmir, Antalya and Içel are the most
important entry gates of plant and plant products. According to the report prepared by
TAIEX phytosanitary experts (Report of February 2002), Plant Quarantine
Directorates appear to meet EU criteria.

The staff at these services is routinely trained by the Plant Protection Research
Institutes on inspection and diagnosis. Each inspector has a fumigation operator
license for container, ship or building fumigation. Imported plant or plant products
that are subject to plant quarantine are inspected visually at the customs point by the
quarantine inspectors. In the case of suspicious consignments, samples are taken and
sent to the Plant Protection Research Institutes for detailed diagnosis and
identification since Plant Quarantine Services do not have laboratories. Routine
quarantine tests take more time than research at the research institutes. This situation
causes delays for the suspected parties waiting at customs.

Additionally, some harmful organisms on plant and plant products may be transmitted
due to the fact that quarantine inspectors do customs checks visually. For this reason,
the establishment of four new plant quarantine laboratories under Istanbul, Izmir,
Antalya and Içel Plant Quarantine Services arises as a necessity. Once these plant
quarantine laboratories are established, laboratory tests will be carried out at borders,
rapidly and effectively.

The newly established Plant Quarantine Services will act as Border Inspection Posts,
as well. It is essential that the communication between these posts and the
headquarters be established. Therefore the setting up of a computer network
information system between these elements will accelerate and strengthen the
quarantine facilities.

In fact, the findings of the TAIEX experts (Ibid.) confirm the need for establishing a
network system among the quarantine services. The report states that there is a need
for an urgent improvement in the computerised systems throughout the entire service.
It is recommended by the experts “…that an efficient network system be developed
between, initially, the administration unit, all offices of the technical service and the
research institutions involved in quarantine control”.

2) Plant Health (including potato diseases) component

Similar to other countries, potato production has exceeded most of the other food
crops in Turkey. In the year 2000, potato was produced on about 205,000 ha area and
5,300,000 tons. More than 68% of total production is consumed for domestic market,
16% is used for family consumption, 13% is used for seeds, 1% is utilised for
industrial purposes, 1.5% is exported, and the rest is wasted. Certified seed potato production is mainly based on introduced seed tubers from Netherlands and Germany.

Since disease control is a prerequisite for improving and maintaining yield and quality of the potato crops, Turkey is taking the necessary legal and technical measures. In this regard, EU directives on potato diseases, listed in the NPAA have been reviewed and relevant regulations (communiqués) have been prepared pending for adoption. These four communiqués and the relevant EU legislation are as follows:

- Communiqué on the control of *Ralstonia solanacearum* (98/57/EEC)
- Communiqué on the control of potato ring rot disease (*Clavibacter michiganensis* subsp. *sepedonicus*) (93/85/EEC)
- Communiqué on the control of potato eelworm nematodes (*Globodera rostochiensis, G. pallida*) (69/465/EEC)
- Communiqué on the control of potato wart disease (*Synchytrium endobioticum*) (69/464/EEC)

*Ralstonia solanacearum* has been detected in very limited areas and its spread is prevented through quarantine measures. Two survey projects were carried out to determine its situation on potato growing areas. Potato ring rot disease does not exist in Turkey. However, routine surveys will be done in potato growing areas. Potato cyst nematodes were detected in Bolu province.

After the communiqué is put into force, survey studies will be initialised and soil will be tested in seed potato fields prior planting. A survey project has been prepared to determine the occurrence of potato wart disease. This study will be carried out under the supervision of Plant Protection Research Institutes with the collaboration of extension services. The official surveys will start in 2003.

It is strongly recommended by the TAIEX experts (Ibid.) that the procedures contained within the four potato directives are strictly and vigorously implemented at the earliest opportunity. The report states that this is particularly important in order to begin the process of official systematic surveys and sampling to determine the status of these organisms within Turkey under procedures equivalent to those as are applied within the EU.

Surveys on harmful organisms are carried out by Plant Protection Research Institutes in Turkey. Necessary laboratory tests are performed at these institutes, as well. However, the capacity of these institutes based in Adana, Izmir and Ankara is very limited for routine tests. After the entry into force of communiqués on potato diseases control, potato-growing areas, approximately 220,000 ha, are required to be tested systematically according to EU standards. When compared with the production area and the total yield of potato, the capacity of these laboratories is quite insufficient to perform such tests. Therefore, Turkey has to increase the potato testing capacity to fulfill its responsibility. In this respect, a new potato testing laboratory will be established under Nigde Potato Research Institute and the capacities of Ankara, Izmir (Bornova) and Adana Plant Protection Research Institutes which carry out potato testing presently will be improved. In principle, the enforcement capacities of all of the four laboratories are envisaged to be upgraded through the equipment supplied. As
a result, more potato growing areas will be surveyed and more potato tuber samples will be tested.

3) Pesticide registration and residue analysis component

Turkish legislation concerning plant protection is based on the International Plant Protection Convention (IPPC). Studies on the harmonisation with the EU Plant health legislation are ongoing. The first residue analysis and pesticide quality test laboratory was established at the Ankara Plant Protection Central Research Institute in 1954. After then, two residue analysis and one quality control test laboratories have been established.

The obligation of making the necessary arrangements to create the system of plant protection products, being placed on the market, has been imposed in the provisions of the Council Directive 91/414/EEC of 15 July 1991 concerning the placing of plant production products on the market. In accordance with this regulation, plant protection products, which have been placed on the market for their use, shall be officially controlled to determine whether they comply with the requirements of the authorisation and information appearing on the label, as well as with requirements of the above-mentioned Directive.

The importance of adopting the requirements on pesticides in the framework of Council Directive 91/414 is emphasised in the report of TAIEX experts (Ibid.). The report identifies the need of training and upgrading the enforcement in Turkey with regard to pesticide residue evaluation and Maximum Residue Limit setting, including risk assessment and quality control procedures for pesticide residue analysis. For quality control of pesticide residues it is recommended that a number of laboratories should be selected to be further supported with new equipment and specialised personnel.

As mentioned above, there are two laboratories responsible for quality control of Plant Protection Products, namely, the Ankara Plant Protection Central Institute and the Istanbul Province Directorate. However, these laboratories need to be upgraded technically to fulfill the requirements stemming from Council Directive 91/414/EEC. Accreditation process shall be initialised for the quality control laboratories in Ankara Plant Protection Central Research Institute and in Istanbul Province Directorate. Additionally, technical staff needs to be trained on new test methods. Moreover, residue analysis laboratories at Ankara, Bornova and Adana Plant Protection Research Institute need to be strengthened. Technical staff working at these laboratories shall be trained on standard analysis methods.

3.2. Linked activities

EC-MEDA Support to the Turkish Authorities in Charge of Legislative Alignment to the Acquis in the Phytosanitary Sector

Under the Admin-Coop Programme a group of selected experts is assisting the Phytosanitary 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 phytosanitary 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 output of this assistance (ending March 2003) relevant to this project is institutional assessment and reform proposals.

3.3. Results

3.3.1. Legislation

The EU principal directives, regulations and decisions relating to the three components covered by this project are transposed into the Turkish legislation.

3.3.2. Plant Quarantine (including border inspection posts-BIP) component

- Four Plant Quarantine Laboratory facilities are equipped in line with EU and international standards that will enable efficient and reliable diagnostic techniques for harmful organisms.
- Through the effective controls on the imports of plant and plant products introduction of harmful organisms into and spreading within Turkey are prevented.
- Computer network system is established between plant quarantine (BIP) laboratories and headquarters providing improved communication means and accelerating the measures to be taken.

3.3.3. Plant Health (including potato diseases) Component

- Potato testing capacity of Ankara, Bornova and Adana Plant Protection Institutes and Nigde Potato Research Institute laboratory is increased and upgraded in line with EU standards.
- Risk of serious outbreaks of harmful organisms is reduced.

3.3.4. Pesticides Registration and Residue Analysis Component

- Pesticide Quality Control Laboratories in Ankara Plant Protection Research Institute and Istanbul Provincial Directorate, and pesticide residue laboratories in Ankara and Izmir Plant Protection Research Institutes are upgraded
- Pesticide quality laboratories in Ankara Plant Protection Research Institute and Istanbul Provincial Directorate are accredited and registrations of pesticides are facilitated.
- Procedures for the registration of pesticides and quality control of pesticides are improved.
- MARA and its services became familiar with EU legislation and procedures and are able to reach more effective and efficient policy decisions.
- Improvements in the monitoring of pesticide residues stimulated good farming practice and ensured a reduced risk of unacceptably high pesticide residues being present in food.

3.4. Activities

3.4.1. Twinning

Twinning component will cover activities related to training on techniques used in plant quarantine, potato testing and plant protection products, training of inspectors involved in quarantine applications, study visits, the advisory service on quality control of plant protection products and determination of maximum residue limits, as
A long-term pre-accession advisor (PAA) for 24 months (MM) - Tasks:

- co-ordination and monitoring of project execution;
- assistance to the implementation of the *acquis communautaire* from an administrative point of view at national and regional levels;
- establishing organisation details and subjects for training courses;
- training of administrative staff on Community procedures in plant protection (in Turkey and in the Member States) and on the techniques employed on detecting harmful organisms;
- adoption of Community and quality assurance standards in the laboratories and trial stations;
- Providing advisory service for plant health inspectors;
- the elaboration of manuals and instructions for quarantine applications and inspections;
- arrangement of the translation and printing of manuals and instructions.

Main requirements concerning the PAA:

- Expert on plant protection matters with a work experience of at least 10 years in Plant Health.
- Good competence of EU and MS national plant protection laws (mainly Dir. 2000/29, 93/51, 92/90, 93/50, 92/105, 91/414).
- Good competence of EU and MS Plant Health Legislation and previous experience in advising other EU accession candidate countries will be considered an advantage.
- High communicative skills.

The PAA will be assisted on horizontal issues related to the project by:

- 3 Legal Experts (4 man months) (1 for plant health, 1 for plant protection products, 1 for pesticide residues) - tasks:
  - Expertise of legal acts, including the analysis of the possible differences between the Turkish and the EU legal acts,
  - Preparation of a report on the conformity of legal acts,
  - Recommendations for the necessary amendments or for the elaboration of new legal acts.

Requirements:

- Expert on EU phitosanitary acquis and has knowledge on the legislation in other EU member states.
- High communicative skills

- 1 Short-term expert to provide assistance to organisation and design of the laboratory according to the equipment supplied (1 MM).

Requirements:
Expert on plant health laboratory design
High communicative skills

1 Short-term expert for accreditation of pesticide quality laboratories (4 Man months)- tasks:

- Coordination of accreditation process
- Attending in ring tests
- Provision of the guidance in the scope of necessary training and activities

Requirements:

- 5 years experience in laboratory accreditation process
- Experience in accreditation of control and testing methods
- Good knowledge of relevant EU and other international organisations’ regulations
- Ability to provide training for the laboratory staff

An indicative list of training activities envisaged under each component is as follows:

**Plant Quarantine (including border inspection posts-BIP) Component**

- Training of 4 Laboratory staff on detecting techniques of harmful organisms in a Member State for 1 month
- Training of inspectors on Pest Risk Assessment in Turkey for 1 week (1 expert)
- Training of inspectors on Licensing of Harmful Organisms in Turkey for 1 week (1 expert)
- Training of inspectors on Sampling Procedures of plant material in Turkey for 1 week (1 expert)
- Preparing the vademecum for the inspectors in Turkey for 1 month (1 expert)
- Study visit to a Member State for 15 inspectors in order to enable them to observe the procedures in practice for 1 week
- In-country training of 400 inspectors by Ministry Expert in Turkey for 1 week
- Printing of inspection manuals (vade mecum)

**Plant Health (including potato diseases) Component**

- Training of 2 staff on the use of molecular diagnostic techniques for plant diseases in a member state for 1 month
- Training of 2 staff on identification of species and pathotypes of potato cysts nematodes by electrophoresis in a member state for 1 month
- Training of 2 staff on PCR-based techniques for the detection of fungal organisms including viruses in a member state for 1 month
- Training of laboratory staff on containment facility procedures in Turkey for 1 week (1 expert)
− Training of extension service staff on monitoring seed and table potato circulation in Turkey for 1 week (1 expert)
− Seminar on controlling of potato harmful organisms in Turkey for 1 week (3 experts from EU)

**Pesticide Registration and Pesticide Residues Component**

− Training of 4 staff on quality control of plant protection products (physical and chemical) in a Member State for 1 month
− Training of 2 staff on Fixing and calculating MRL for residue analysis of pesticides in a member state for 1 month
− Study visit of 2 EU experts for the pesticide residue laboratories that will be accredited in Turkey for 2 weeks (2 experts)
− Printing of quality control guidelines

### 3.4.2. Plant Quarantine (including border inspection posts-BIP) Component

- Equipping 4 plant quarantine laboratories designated as plant and plant products border inspection posts
- Setting-up a border inspection post IT network system between quarantine laboratories and the Ministry of Agriculture
- Training to ensure that new equipment is operated in the correct manner, the objectives of the tests are fully understood and the analyses of test results are correctly carried out and interpreted
- Training of inspectors
- Elaboration of the inspection manuals.

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

### 3.4.3. Plant Health (including potato diseases) Component

- Upgrading potato laboratories of Ankara, Bornova and Adana Plant Protection Institutes and Nigde Potato Research Institute laboratory so as to increase test capacity
- Training of laboratory staff on detection and diagnosis of pathogenic agents of potato diseases and on techniques used.

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

### 3.4.4. Pesticides Registration and Residue Analysis Component

- Upgrading pesticide quality laboratories in Ankara Plant Protection Research Institute and Istanbul Provincial Directorate
- Upgrading pesticide residue laboratories in Ankara and Izmir Plant Protection Research Institutes
- Transposition of the primary and/or secondary legislation in line with EU acquis
- Training on laboratory practices, quality control and determination of maximum pesticide residue limits
- Study visits
- Accreditation of pesticide quality laboratories in Ankara Plant Protection Research Institute and Istanbul Provincial Directorate to GLP standards
• Elaboration of quality control guidelines.

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

3.5 Lessons Learned

In designing this project account has been taken of the comprehensive ‘Phytosanitary Advisory Visit on Plant Health, Varieties and Protection Products’ Report on Turkey’ issued by the TAIEX office in early 2002. The main conclusions and recommendations there included refer to the necessity of establishing a computerised network among the main actors in the system, preparing and disseminating an instructions handbook, equipping the laboratories and their participation to international ring tests harmonisation of legislation on Maximum Residue Levels and related staff training etc. The great majority of the conclusions and recommendations have been used as guideline and founding basis to set this project’s purposes, results, activities and conditionalities.

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, plant health services are carried out by the General Directorate of Protection and Control under the Ministry of Agriculture and Rural Affairs (MARA) through 81 Provincial Directorates, 4 Plant Protection Research Institutes and 7 Agricultural Quarantine Directorates.

Plant health activities are carried out by 4,924 official staff working in central and provincial organisations. Of this total, 1,599 are Agricultural Engineers and 3,325 are technical personnel. 338 technical employees work as inspectors. The number of experts such as mycologists, bacteriologists, virologists, entomologists, nematologists etc. working at research institutes is 94.

The project will be carried out with the participation of the relevant institutions of the Ministry of Agriculture and Rural Affairs. These are, General Directorate of Protection and Control (GDPC), General Directorate of Agricultural Research, General Directorate of Agricultural Production and Development, Potato Research Institute in Nigde, Agricultural Protection Research Institutes and Provincial Directorates.

Implementation and enforcement capacity of the relevant institutions will be strengthened particularly through the improvement of technical facilities and through twinning activities. Technical assistance provided by EU experts will contribute to the pre-accession related activities of these institutions. Moreover, the BIP network system will enhance the flow of information between the borders and the headquarters.
5. Detailed Budget

*Pre-Accession Support to TURKEY*

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Investment Support</th>
<th>Institution Building</th>
<th>Total EC (=I+IB)</th>
<th>National Cofinancing*</th>
<th>IF I*</th>
<th>TOTAL 000 Euro</th>
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<tbody>
<tr>
<td>Twinning</td>
<td>-</td>
<td>1.000</td>
<td>1.000</td>
<td>-</td>
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<td>1.000</td>
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<td>Establishment of Quarantine lab.</td>
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<td>1.130</td>
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<td>-</td>
<td>1.075</td>
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<td>1.433</td>
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<td>-</td>
<td>255</td>
<td>85</td>
<td></td>
<td>340</td>
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<td>Strengthening of pesticide residue lab.</td>
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<td>-</td>
<td>475</td>
<td>158</td>
<td></td>
<td>633</td>
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<tr>
<td>BIP Network System</td>
<td>300</td>
<td>-</td>
<td>300</td>
<td>100</td>
<td></td>
<td>400</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3.235</strong></td>
<td><strong>1.000</strong></td>
<td><strong>4.235</strong></td>
<td><strong>1.078</strong></td>
<td></td>
<td><strong>5.313</strong></td>
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</table>

The Government of Turkey will provide 25% co-financing in cash for the investment component of the projects. The national co-financing will be covered from the national budget, and will include laboratory equipment, computers, etc. All running costs and maintenance of the equipment purchased under this project will be provided by the beneficiary. The same applies to software licenses.

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.

6.2. Beneficiary

Ministry of Agriculture and Rural Affairs, General Directorate for Protection and Control

Contact Person:
6.3. **Twinning**

Twinning (see section 3.4.1. for details) is envisaged with a duration of 2 years for:

- Pre-accession advisor
- Legislation
- Training under 3 project components

Beneficiary of the twinning is the same as Section 6.2.

6.4. **Non-standard aspects**

None

6.5. **Contracts**

There will be a selection procedure for the twinning and two tenders launched. A total of 3 to 5 contracts, depending on the number of lots for laboratory equipment, are envisaged as follows:

- Twinning (1,000,000 €)
- Supply of equipment (3,913,000 €)
- BIP IT Network (400,000 €)

7. **Implementation Schedule**

The following implementation schedule is estimated:

<table>
<thead>
<tr>
<th>Component</th>
<th>Start of Tendering</th>
<th>Start of Project Implementation</th>
<th>Project Completion</th>
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<tbody>
<tr>
<td>Twinning</td>
<td>October 2002</td>
<td>April 2003</td>
<td>May 2005</td>
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<td>Establishment of Quarantine lab.</td>
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<td>May 2003</td>
<td>December 2003</td>
</tr>
<tr>
<td>Improvement of potato testing lab.</td>
<td>November 2002</td>
<td>May 2003</td>
<td>December 2003</td>
</tr>
<tr>
<td>BIP Network System</td>
<td>July 2003</td>
<td>January 2004</td>
<td>September 2004</td>
</tr>
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</table>
8. Equal Opportunity

Selection of staff and other personnel to work on the projects will be based on objective assessments of qualification and experience, without regard to gender.

9. Environment Not applicable

10. Rates of return Not applicable

11. Investment criteria Not applicable

12. Conditionality and sequencing

The implementation of this programme is conditional upon legal provisions of EU acquis harmonised. Mainly, 4 communiqués on the control of potato diseases and pesticide regulation shall be adopted.

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.

ANNEXES TO PROJECT FICHE

I- Logical framework matrix in standard format
II-Detailed implementation chart
III- Contracting and disbursement schedule by quarter for full duration of program (including disbursement period)
IV- National Program for the Adoption of EU Acquis
V- List of Inputs to be provided under Project Components
## ANNEX 1 TO PROJECT FICHE

### LOGFRAME PLANNING MATRIX FOR (Support to the alignment of Turkey to the EU acquis in Phytosanitary Sector)

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Total Budget (MECU)</th>
<th>EC contribution (MECU)</th>
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<tbody>
<tr>
<td></td>
<td>Eur 5,313,000</td>
<td>Eur 4,235,000</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Contracting period expires: October 2004</th>
<th>Disbursement period expires: September 2005</th>
</tr>
</thead>
</table>

### Wider Objective(s)

**Indicators of Achievement**

- Align with the EU Phytosanitary legislation and practices with regard to plant health, quarantine, pesticide registration and residues so as to improve the overall quality standards and safety of plant and plant protection products in Turkey.

**Means of verification**

- Ministry of Agriculture and its services are able to provide relevant services according to EU rules and practices.
- DG SANCO inspections
- TAIEX visits
- Turkey maintains its commitment to EU membership.

### Immediate Objective (Purpose)

- **To upgrade the technical infrastructure of the Ministry of Agriculture and Rural Affairs (MARA) and its services in order to undertake the priorities for EU alignment and implement the reforms identified in the current Accession Partnership and the National Programme for the Adoption of the Acquis (NPAA) with regard to the phytosanitary sector.**
- **To strengthen the legal and**

**Indicators of Achievement**

- Existing and new laboratory infrastructure established at EU standards.
- Training programs completed and staff familiar with EU practices.
- Enhanced plant health activities (by end project):
  - current time (one week) needed for phytosanitary border inspection halved
  - 100% increase of number of current export potato controls

**Means of verification**

- Twinning reports
- DG SANCO AND TAIEX REPORTS
- Notifications to EPPO of plant diseases, residues and legislation
- Documents provided by the Ministry of Agriculture and Rural Affairs
- Reports of the extension service
- Publication in the official gazette

**Assumptions and Risks**

**Assumptions**

- High quality technical support
- Legal arrangements consistent with the related EU legislation
- Facilities for the establishment of the infrastructure used efficiently.
- Information exchange system operated.
- Clear knowledge of the relevant EU Acquis

**Risks:**

- Possible delays in legal arrangements.
- Problems that may arise in implementation.
institutional capacity of the Ministry of Agriculture and Rural Affairs (MARA) and its services to transpose the rules and practices of EU phytosanitary sector.

- introduction of domestic potato control
- 100% increase in the current number of pesticides post-registration and residue controls
- Legislation compatible with the related EU legislation enacted and implemented.

<table>
<thead>
<tr>
<th>Results</th>
<th>Indicators of Achievement*</th>
<th>Means of verification</th>
<th>Assumptions and Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Legislation</td>
<td>The EU principal directives, regulations and decisions relating to the areas covered by this project will be transposed into the Turkish legislation.</td>
<td>Legislation successfully enacted and/or amended.</td>
<td>Sufficient resources are allocated to the redrafting of legislation and political commitment to enact the legislation.</td>
</tr>
<tr>
<td>2. Plant Quarantine (including border inspection posts-BIP) Component</td>
<td>Four Plant Quarantine Laboratory facilities in line with EU and international standards that will enable efficient and reliable diagnostic techniques for harmful organisms established.</td>
<td>Plant Quarantine Laboratories supplied with necessary equipment</td>
<td>Necessary budget provided from national resources</td>
</tr>
<tr>
<td></td>
<td>Effective controls on the imports of plant and plant products will prevent introduction of harmful</td>
<td>The number of training courses and study visits provided</td>
<td>Sufficient human resources are available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Twinning Reports Invoices DG SANCO inspections. TAIEX visits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Twinning Reports DG SANCO inspections. TAIEX visits</td>
<td></td>
</tr>
</tbody>
</table>
organisms into and spreading within Turkey.

- Computer network system established between plant quarantine (BIP) laboratories and headquarters providing improved communication means and acceleration of the measures to be taken.

3. Plant Health (including potato diseases) Component

- Potato testing capacity of Ankara, Bornova and Adana Plant Protection Institutes and Nigde Potato Research Institute laboratory increased and upgraded in line with EU standards.

- Risk of serious outbreaks of harmful organisms reduced.

4. Pesticides Registration and Residue Analysis Component

- Pesticide quality control Laboratories in Ankara Plant Protection Research Institute and Istanbul Provincial Directorate, and pesticide residue

| The number of staff and inspectors trained. | Inspection manuals published |
| Network system established and software installed | Twinning Reports Invoices DG SANCO inspections. TAIEX visits |
| Laboratories supplied with necessary equipment | Twinning Reports Invoices DG SANCO inspections. TAIEX visits |
| The number of training courses and study visits provided | |
| The number of tests carried out | |
| The number of staff trained. | |

Laboratories supplied with necessary equipment

Laboratories accredited

Pesticide registration

Necessary budget provided from national resources

Sufficient human resources are available

Necessary budget provided from national resources

Relevant legislation in place

Sufficient human resources are available

Sufficient resources are available to meet the costs of continued GLP accreditation and participation in ring tests
laboratories in Ankara and Izmir Plant Protection Research Institutes are upgraded.

- Pesticide quality control laboratories in Ankara Plant Protection Research Institute and Istanbul Provincial Directorate accredited and registration of pesticides facilitated.

- Improved procedures for the registration of pesticides, particularly in the ‘me too’ category and quality control.

- MARA and its services became familiar with EU legislation and procedures and will be able to reach more effective and efficient policy decisions.

- Improvements in the monitoring of pesticide residues stimulate good farming practices and ensure a reduced risk of unacceptably high pesticide residues being present in food.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Means</th>
<th>Costs</th>
<th>Assumptions and Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Twinning</td>
<td></td>
<td></td>
<td>Assumptions</td>
</tr>
</tbody>
</table>
To cover activities related to training on techniques used in plant quarantine, potato testing and plant protection products, training of inspectors involved in quarantine applications, study visits, the advisory service on quality control of plant protection products and determination of maximum residue limits, as well as assistance to the transposition of EU legislation and to the accreditation of laboratories.

A pre-accession adviser (PAA) will be employed for 24 months of the twinning component in order to organise and coordinate the institutional building activities.

### 2. Plant Quarantine (Including border inspection posts-BIP) Component

- Equipping 4 plant quarantine laboratories designated as plant and plant products border inspection posts
- Setting-up border inspection post network system between quarantine laboratories and Ministry of Agriculture
- Training and study visits to ensure that new equipment is operated that new equipment is

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-accession adviser (PAA)</td>
<td>PAA 300,000 €</td>
</tr>
<tr>
<td>Short-term Experts</td>
<td>766,000 €</td>
</tr>
<tr>
<td>Office facilities</td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,066,000 €</td>
</tr>
</tbody>
</table>

EC Support: 1,130,000 €

National Cofinancing: 377,000 €

Total: 1,507,000 €

National Budget allocated for veterinary services is approved for 2003/2004 period

A clear knowledge of the relevant EU Acquis

Facilities for the establishment of the infrastructure used efficiently.

Relevant staff trained.

Common and efficient systems for the pesticide residue controls and pesticide quality controls established.

**Risks**

Lack of coordination between the relevant institutions responsible for the establishment of the systems

Possible delays in the legal arrangements
operated in the correct manner, the objectives of the tests are fully understood and the analyses of test results are correctly carried out and interpreted.

- Training of inspectors
- Elaboration of inspection manuals.

### 3. Plant Health (including potato diseases) Component
- Upgrading potato laboratories within Ankara, Bornova and Adana Plant Protection Institutes and Nigde Potato Research Institute laboratory so as to increase test capacity
- Training of laboratory staff on detection and diagnosis of pathogenic agents of potato diseases and techniques used

### 4. Pesticides Registration and Residue Analysis Component
- Upgrading pesticide quality laboratories in Ankara Plant Protection Research Institute and Istanbul Provincial Directorate
- Upgrading pesticide residue laboratories in Ankara and Izmir

<table>
<thead>
<tr>
<th>Labor. equipment</th>
<th>Pre-accession adviser</th>
<th>Short-term experts</th>
<th>Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EC Support: 1,074,000 €
National Cofinancing: 358,000 €
Total: 1,432,000 €

<table>
<thead>
<tr>
<th>Labor. equipment</th>
<th>Pre-accession adviser</th>
<th>Short-term experts (legal and other experts)</th>
<th>Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory</td>
<td></td>
<td></td>
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</tbody>
</table>

EC Support: 730,000 €
National Cofinancing: 243,000 €
Total: 973,000 €
<table>
<thead>
<tr>
<th>Plant Protection Research Institutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Transposition of primary and/or secondary legislation in line with EU acquis</td>
</tr>
<tr>
<td>• Training on laboratory practices, quality control, determination of maximum pesticide residue limits</td>
</tr>
<tr>
<td>• Study visits</td>
</tr>
<tr>
<td>• Accreditation of pesticide quality laboratories in Ankara Plant Protection Research Institute and Istanbul Provincial Directorate to GLP standards</td>
</tr>
<tr>
<td>• Elaboration of quality control guidelines</td>
</tr>
</tbody>
</table>
## ANNEX II – DETAILED IMPLEMENTATION CHART

<table>
<thead>
<tr>
<th>Components</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
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</thead>
<tbody>
<tr>
<td>Twinning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment Supply</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Network</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P – Preparation  
T – Tendering  
C – Contracting  
I – Implementation
### ANNEX III: CUMMULATIVE CONTRACTING AND DISBURSEMENT SCHEDULE (000’s Euro)

<table>
<thead>
<tr>
<th></th>
<th>31-3-2003</th>
<th>30-6-2003</th>
<th>30-9-2003</th>
<th>31-12-2003</th>
<th>31-3-2004</th>
<th>30-6-2004</th>
<th>30-9-2004</th>
<th>31-12-2004</th>
<th>31-3-2005</th>
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<tbody>
<tr>
<td>Contracted</td>
<td>0</td>
<td>4,913,000</td>
<td>4,913,000</td>
<td>4,913,000</td>
<td>5,313,000</td>
<td>5,313,000</td>
<td>5,313,000</td>
<td>5,313,000</td>
<td>5,313,000</td>
</tr>
<tr>
<td>Disbursed</td>
<td>0</td>
<td>3,148,000</td>
<td>3,148,000</td>
<td>4,713,000</td>
<td>4,953,000</td>
<td>4,953,000</td>
<td>5,313,000</td>
<td>5,313,000</td>
<td>5,313,000</td>
</tr>
</tbody>
</table>
4.8.1
Common Agricultural Policy

General
I. Priority description
   a) Current Status

Turkey-EU relations in the agricultural field, from the point of view of ensuring the free circulation of agricultural products, are characterised by three processes: harmonisation of the Turkish agriculture with the Common Agricultural Policy (CAP); implementation of a preferential regime (agricultural concessions) between the parties on trade in agricultural products; and the system on processed agricultural products.

Harmonisation of the Turkish agriculture with the CAP has priority in this regard. Once this objective is realised, free circulation of agricultural products between Turkey and the EU will be ensured. Thus, the regime on processed agricultural products (with regard to the agricultural component) and reciprocal agricultural concessions will enter into the scope of harmonisation with CAP and finally, will be phased out.

In addition to its effect on the general economic and social structure, the harmonisation process will have effect on a wide range of issues directly related to the agricultural sector such as the structure of enterprises, production, consumption, price and market policies, foreign trade, agriculture-dependent and related industries, use of technology, productivity, producers’ income, self-sufficiency, financial policies, rural, regional and social policies, legislation and institutional structure.

With the possible exclusion of products such as fruits, vegetables, tobacco and cotton in which Turkey enjoys certain comparative advantages due to the varying characteristics of its soil, nature and climatic diversity, for most of the agricultural products, particularly for animal products, there exist problems such as disorganisation in the structure of agricultural enterprises, insufficient use of technology and low productivity. As a consequence, land used by each agricultural enterprise is small in scale, distanced from other such land, and overly fragmented. The fragmentation of lands is increasing due to the provisions of the Civil Code on inheritance, the purchase and sale of land, canal and road construction etc. As a result, many agricultural enterprises are forced to work land that is progressively decreasing in size, thereby adversely affecting the efficiency of production activities. Therefore, Turkey should prevent the further fragmentation of land used by the agricultural enterprises, which is the most important component of the agricultural structure, and should reduce the land fragmentation rates to the levels of the EU countries.

In light of the above, Turkey’s competitiveness vis-à-vis the Community may deteriorate even further. In addition, the expected increase in agricultural production and producers’ income may not occur and current figures may even decline.

Therefore, Turkey should bring the cost and prices of agricultural products in line with those of the Community by improving the rural and agricultural infrastructure and the structure of the agricultural enterprises, and by carrying out efficient policies on the use of technology that will allow increases, especially in productivity and levels of competitiveness. In order to improve the agricultural infrastructure and the structure of the agricultural enterprises, the regime on proprietorship and disposition of land should be amended, and measures should be taken nation-wide on issues such as the protection of land, and drainage and irrigation activities. All of these measures, in broad terms, are included in the studies called “Land
Consolidation” or “Land Arrangement”. However, Turkish agriculture may attain only a certain level of competitiveness through these improvements in the long run. In this regard, agricultural reform appears to be a highly important factor in the harmonisation of Turkish agriculture with CAP. Financial and technical support granted by the EU will be a prominent requirement for the harmonisation process and for the reform of the Turkish agriculture.

One of the major issues in the harmonisation of the Turkish agriculture with CAP is related to financial matters. Since this harmonisation coincides with a period in which support granted by the Community is declining, the financial aid that will be granted to Turkey shall not amount to a major burden on the EU budget. In fact, within the scope of Agenda 2000, during the new enlargement process, support provided through price mechanisms is expected to decrease, while support for rural, structural and environmental issues is expected to increase.

The number of agricultural enterprises increased from 2.2 million in 1950 to 3.9 million in 1990. However, the average size of enterprises decreased from 100 decares in 1950 to 59 decares in 1990. According to the results of the 1991 General Agriculture Census (a nationwide comprehensive census on agriculture is conducted once every ten year), 21.6 million pieces of agricultural land exist in Turkey, meaning that each enterprise owns five pieces of land on average. In other words, the farmers have an affiliation with five different pieces of land on average.

Despite the availability to farmers of inputs such as the use of machines, fertilisation, pesticides, irrigation, high quality seeds, incentives etc., Turkey’s agricultural production does not fare too well when compared with the EU countries. Turkey’s efficiency in plant production is merely half of that of EU countries. The main reasons being; Turkish enterprises are, on average, one third of the size of the EU average, and the disintegrated and dispersed structure of these enterprises.

Some of the enterprises are not able to supply sufficient products to the market. In order to become competitive in the specialised production of goods and to increase agricultural production, the average size of the enterprises should be increased through measures determined within a plan, and the fragmentation of lands should be precluded through the consolidation of all agricultural lands both irrigated and dry. In addition, it will be appropriate to take measures within the scope of the Civil Code in order to prevent the further fragmentation of agricultural land.

Given that the support for agriculture within the framework of the CAP reform will decline in the forthcoming years, CAP may not be supportive and protective enough for the Turkish agriculture in the long run.

The major problems in forestry are the incomplete land cadastre works, lack of specialised technical personnel and workers, lack of comprehensive inhabitant inventories, uncertain management objectives, inadequate importance given to ergonomic activities, falling behind the schedules in the rejuvenation process, low amount of protected areas, and low levels of annual forestation due to insufficient financing.

At the international level, “Forestry Principles” and “Agenda 21” put forth in the 1992 summit and issues stated in international and regional platforms such as the “Intergovernmental Forestry Panel and Forum” and the “Minister’s Conference on the Protection of Forestry in Europe” held following the 1992 summit, are taken into consideration in the field of forestry. In this respect, preparation work on the “National Forestry Program” covering the fulfilment and monitoring of international and regional commitments undertaken in the forestry sector still continues.
The agricultural sector is of great economic and social importance to Turkey. Even though the sector accounts for a mere 15% of GDP as of 1999, agricultural employment has a 45.1% share of total employment. While the share of agriculture in the national income is declining, a major portion of the population still depends on agriculture.

According to the 1991 General Agriculture Census results there are 4.1 million agricultural enterprises in Turkey. Approximately 3.6% of the enterprises work exclusively on animal breeding, while 96.4% are involved with plant production and animal breeding. About 35% of these enterprises have a land size of 0-2 hectares, 32% of the enterprises own 2-5 hectares of land, 28% hold 5-20 hectares of land and 5% own more than 20 hectares. However, the ratio of land cultivated by the enterprises with 0-2 hectares of land is 6%, while the ratio for 2-5 hectares, 5-20 hectares and over 20 hectares is 16%, 41% and 37%, respectively. The average enterprise size is approximately 5.9 hectares. According to the results of the said census, 71.9% of the breeders of bovine species own less than 5 animals, and 31.6% of the breeders of ovine species have less than 20 animals.

The income level of the population employed in the agricultural sector is lower than that in other sectors, and within the sector there exists huge disparities in the distribution of income among the various sub-sectors.

Price support policies were not successful and did not produce targeted results for producer incomes. Moreover, the support purchase prices, above the world average, caused an increase in the cultivation areas of certain crops, thereby resulting in excess production and forcing the state to purchase excess amounts, which in turn brought about high stock costs. With a view to alleviating these problems in the short term, a pilot project on the application of the “Direct Income Support for Farmers” was initiated in the year 2000 as a new means of agricultural support.

Turkey continues to fulfil its obligations stemming from the relevant provisions of the Agreement on Agriculture of GATT Uruguay Round. Taking into consideration the developments in the aftermath of the Uruguay Round, a new preferential trade regime has been established with the EU.

Law No 4342 on Rangelands was put into effect in the 7th Plan period. In addition, the “Board for Restructuring and Support in Agriculture” was established. Law No. 4487 has made it possible to engage in forward transactions as well as spot purchases in the Crop Stock Exchanges. Moreover, Decree Law No. 552 on the “Regulation of the Trade of Fresh Fruits and Vegetables and Wholesale Warehouses” has been enforced. A number of provisions of this law have been amended through Law No. 4367 and the relevant legislation has been modified accordingly. Law No. 4572 on “Agricultural Sales Cooperatives and Unions” has also been enforced. Through this law, the provisions on agricultural sales cooperatives and unions have been regulated, a legal framework has been established for the restructuring process, and the efficient and sustainable autonomy and financial independence of the institutions have been ensured.

However, during the 7th Plan Period, the Laws on Re-arrangement of Tobacco Agriculture, Product Insurance, Turkish Union of Agriculture Chambers, Reorganisation of the Ministry of Agriculture and Rural Affairs, which were all stipulated within the framework of the Project on the Structural Change of the Agricultural Policies, have not yet been legislated. The draft law on Producer Unions has reached the final stage prior to enactment.

Modern biotechnology is in its initial phase in Turkey. Current studies have not reached the level necessary to achieve transgenic products. Basic studies should be carried out on this matter. However, as a first step the developed technology can be transferred and utilised. The
infrastructure necessary for the transfer and the use of technology is largely available in Turkey. Turkey should immediately initiate work on products that can be transferred and used within the industrial sector.

Since Turkey is still at the initial stage it will be easier to plan and implement these activities in a more reliable environments with more reliable results. Moreover, the fact that these activities are non-profit activities in Turkey means that necessary safety measures can be taken without difficulty.

Objectives, Principles and Policies
Taking into consideration its own agricultural policy requirements, the developments in the agriculture sector and the requirement of the Turkish agriculture to harmonise with CAP, Turkey has adopted the following objectives, principles and policies in the 8th Plan:

Keeping in mind the principle of the effective utilisation of resources, the main objective is to establish an organised, highly competitive and sustainable agricultural sector that takes into account economic, social, environmental and international developments. Within the context of the food security principle, ensuring balanced and sufficient nutrition for the increasing population is another objective.

The improvement and stabilisation of the income levels of the producers will be assured through policy instruments guaranteeing the orientation of the production in accordance with demand under market conditions, instead of state intervention, which has negative impacts on the formation of market prices. Measures will be taken to reduce the cost of production and to accelerate technological development.

The fundamentals of Turkish agricultural policy will be determined according to commitments stemming from the World Trade Organisation- Agreement on Agriculture, developments in the Community’s CAP during the pre-accession period, and finally, developments in international trade.

Emphasis will be given to; the development of human resources having the priority, the more efficient use of production factors; the improvement of productivity; the reinforcement of the administrative capacity of agricultural institutions; the resolution of the problems experienced in the flow of institutional services; the efficient and rational distribution of resources between sectors; the reinforcement of producers’ organisations; the improvement of the competitiveness of agricultural enterprises, and the development of marketing networks.

Farmers Register System, Title Deed- Cadastre System, Geographical Information System and Farm Accounting Data Network will be developed. Agricultural Information System using the agricultural database will also be set up.

Risk Management instruments will be developed in order to protect producers and production levels against risks. In this context, the development, widespread use and effective implementation of instruments such as the insurance system for agricultural products, a stock exchange for forward transactions, contractual agriculture and stock management will be ensured.

Taking into consideration the importance of regional programs in agricultural development, special regional programs will be developed within the framework of the studies to determine problematic agricultural production areas having priority.

The planning and management of participatory projects on all issues, levels and stages related to the agricultural sector will be taken as benchmark.
Work on rural development projects providing direct financing to producers, based on the participation and responsibility of those producers, will be continued. In this context, the East Anatolia Watershed Rehabilitation Project, which aims to raise the income level in rural areas, has been put into operation in 11 provinces.

Non-agricultural sectors will be supported in rural areas and rural industry will be made widespread. Projects will be developed to create employment opportunities for people leaving the agricultural sector.

Agricultural research institutes will be improved to give them an effective structure. Coordination will be established between the research activities carried out by various institutions, organisations and universities.

Producer needs will be taken into consideration in the determination of agricultural research priorities. The participation and contribution of the producers will be sought in the development and implementation of research oriented projects.

Agriculture-industry integration will be developed and contractual production for agricultural industry will be applied extensively through the supply of appropriate and high quality raw materials enhancing the competitiveness of the processing industry.

While the Agricultural Sales Cooperatives and Unions will be granted an autonomous structure in line with the principles of cooperatives, in case these institutions are restructured, necessary measures and policies will be implemented to provide sustainability.

Some of the tasks and responsibilities currently performed by the public sector will be handed over to the producer organisations.

The planning and management of participatory projects on the basis of basins will be adopted in the use of natural resources. A system will be established in which the natural resources can be used in a sustainable manner and gene resources can be protected and stored.

Within the context of agricultural policies, with a view to achieving balanced environmentally-friendly agricultural development, participation will be encouraged at all stages of the process from people who benefit from agricultural infrastructure investments. The effective utilisation of the current infrastructure and the rational use of resources for the realisation of the new investments will be ensured.

A Land Use Plan will be prepared by carrying out detailed land studies and preparing maps, by enforcing a Law on the use and protection of the land, by completing land cadastre activities and preparing a land database.

The optimum enterprise sizes in terms of the smallest piece of parcels that cannot be further divided will be set forth on a regional basis. Incentive measures will be taken according to the size of economic enterprises.

Production of animal products will be improved. In addition, with the aim of ensuring a balanced and adequate level of nutrition in society, with regard to animal proteins, emphasis will be given to the breeding of animals, combating animal diseases and harmful organisms, increasing the production of concentrated animal feed and feed products, improving meadows, and extension services.

In order to increase the sustainable production in fisheries products; natural resources will be used rationally, breeding and open sea fishing will be developed, importance will be given to
research and development activities and necessary arrangements will be carried out to establish an effective administrative structure in the public sector.

Forests will be managed, operated and preserved within the context of economic, social, environmental and ergonomic criteria, in line with society’s requirements for forestry products and services, and within the principles of sustainable forestry, biological diversity, protection of wild life and multi-lateral use.

In order to prevent disasters such as deforestation, desert-formation, land erosion, flood, landslide and avalanches in Turkey, activities such as forestation, erosion control, meadow improvement and social forestry will be developed and forestation efforts of real and legal entities will be supported.

Legal and Administrative Arrangements
The Agricultural Framework Law that encompasses agricultural matters as a whole, will be enforced. Arrangements will be carried out for the efficient functioning and development of Chambers of Agriculture.

A draft law on Producer Unions prepared and submitted to the Prime Ministry, aims to establish non-profit organisations independent of the public sector to assist producers from the production to the marketing stage. Organised farmers will be supported and incentive measures will be applied in this regard. Necessary arrangements will be carried out to make the control of these organisations autonomous.

The Ministry of Agriculture and Rural Affairs and the agricultural State Owned Economic Enterprises will be restructured.

Work on the preparation of the Law on Agricultural Product Insurance, and the related action plan, will be completed.

Since the Board of Restructuring and Support in Agriculture does not include sufficient number of private sector companies and representatives from farmer organisations, the board will be enlarged through the admission of new members.

Taking into consideration the aforementioned matters, regarding the harmonisation of the Turkish agriculture with CAP which is the ultimate goal in the field of agriculture, the following issues have priority:
Within the framework of the activities conducted for the harmonisation of Turkish legislation with the EU acquis, it is proposed to carry out this harmonisation gradually, and in this regard, to introduce the necessary administrative, legal, financial and technical arrangements.

Rural and agricultural non-governmental organisations (cooperatives, unions, professional chambers, etc.) are being strengthened to fulfil their obligations with regard to CAP. In addition, in terms of administration and financing, these organisations are being granted an independent structure and the role of the state in these matters is being reduced.

Within the context of land arrangement and land consolidation, work is underway to increase agricultural productivity and competitiveness through the planning and improvement of the structure of agricultural enterprises as well as the rural and agricultural infrastructure.

In addition to agricultural production, work is being carried out on the development of agricultural industries, marketing channels, particularly the grain stock exchange system and wholesale food markets.
Natural resources, the environment and the rural landscape should be protected and improved across the country, in regions and basins. Agricultural industry and other non-agricultural economic activities should be supported in rural areas and the competitiveness of the rural areas should be enhanced.

As required by the harmonisation with the EU system, the necessary legal, administrative and technical arrangements should be introduced in the fields of food safety, animal and plant health and quality control.

Special support and protection systems should be developed in cooperation with the EU for selected products such as tea, Angora goats, and fresh silk-cocoons.

Special care should be taken for the protection of the environment and rural heritage. In this respect, farmers should be encouraged to practice agricultural techniques that are environmentally friendly.

Taking into consideration the expected development of agricultural policies in Turkey and in the Union, the agricultural policies and legislation need to be harmonised continuously.

In order to create a country-wide bio-safety system, it is necessary to prepare the legal framework, to take the necessary measures to inform users, decision makers and the public about the available data and to establish a system for control and monitoring. Biotechnology products, either imported or domestically produced, should pass all tests on bio-safety.

The Ministry of Agriculture and Rural Affairs initiated the preparatory work for the relevant legislation in Turkey. As a result of the work carried out under the coordination of the Directorate General for Agricultural Researches, considerable progress has been achieved on the relevant legislation within a short period of time. Legislation work on transgenic plants is carried out in parallel with international legislation and the activities of other countries.

Within the framework of the main principals and guidelines set forth, the issue is studied under three categories: “Field Tests for Transgenic Crops”, “Registry of Transgenic Crops” and “Production and Marketing of Genetically Modified Organisms (GMO)”. In this respect, the “Instruction on the Field Tests for Transgenic Crops” on the basis of which these products are tested before entering into Turkey for production, was enforced in May 1998.

In line with the aforementioned activities, commissions established under the coordination of TÜBİTAK have drafted technical texts that form the basis of the legislation work on the “Production and Marketing of Genetically Modified Organisms (GMO)” and “Development and Use of Genetically Modified Microorganisms”. The legislation process is ongoing.

b) EU Acquis
The relevant EU legislation list is provided under Volume II.

c) Implementing Institution
Public institutions have an extensive organisation on agricultural sector activities. The Ministry of Agriculture and Rural Affairs is the primary institution responsible for the implementation of agricultural policies in Turkey. Other public institutions that have responsibilities for the execution of agricultural policies are the Ministry of Industry and Trade, the Ministry of Forestry, some Ministries of State, the State Planning Organisation, the Undersecretariat for Treasury, the Undersecretariat for Foreign Trade, the Central Bank and Ziraat (Agriculture) Bank. In addition, the “Board for Restructuring and Support in Agriculture” has been established in order to coordinate the work carried out by the public institutions. There is a need for the Board to function more actively so as to ensure a much
more effective coordination between these institutions during the adoption and implementation of the Community acquis.

Chambers of Agriculture, cooperatives and unions carry a major role in the organisation of producers in Turkey. Producer organisations need to be restructured, particularly so as to fulfil purchasing responsibilities under CAP.

A new administrative structure is required for the implementation of the EU acquis.

d) Final Objective

Turkey shall adopt the EU acquis, especially the CAP, in a manner that allows the most efficient application and in compliance with the agricultural and economic interests of both Turkey and the Community. In this respect, it is proposed to carry out the adoption on plant and animal health, fresh and processed fruits and vegetables, fisheries products, olive oil, sugar and forestry in the first stage; arable crops including grains, rice, sunflower oil seeds, soybean and rapeseed, flax-hemp, starchy potatoes in the second stage, and on other agricultural products, especially animal husbandry in the final stage.

Other important issues that require harmonisation in the agricultural sector are foodstuff controls and the quality and standards of agricultural products. Turkey is carrying out harmonisation activities in parallel with recent developments, especially with rules of the World Trade Organisation. The progress that Turkey will achieve in harmonising with the WTO rules will also provide harmonisation with those of the Community.

In addition to the adoption and implementation of the agriculture legislation of the Community, the developments in the acquis will be continuously monitored and necessary measures will be taken for harmonisation. In this regard, Turkey’s participation in the technical committees of the EU Commission appears to be of crucial importance for the adoption process.

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


Additionally, Law on the Establishment of Turkish Standards Institute, Law on Chambers of Agriculture and Union of Agriculture Chambers, Law on Cooperatives, Law on Agricultural Sales Cooperatives and Unions, Law on Forestry and Law on Environment are all closely related to the agricultural sector.

Moreover, agreements concluded with GATT and the Community, as well as the free trade
agreements signed with various countries include provisions on a wide range of topics for agricultural products.

In addition to the Turkish legislation listed above, the below listed legislation is effective in the field of forestry: Law No. 3800 on the Establishment of the Ministry of Forestry, Law No. 6831 on Forestry, Law No. 2873 on National Parks, Law No. 2924 on Support for the Improvement of Forestry Farmers, Law No. 4122 on National Mobilisation on Afforestation and Erosion Control, Law No. 3234 on the Establishment of Directorate General for Forestry, Law No. 3167 on Land Hunting and Communiqué No. 285 on the Implementation Principles on the Prevention of and Combat with Forest Fires.

b) Necessary Amendments and Modifications in the Corresponding Turkish Legislation

Turkish legislation on plant and animal health, quality and standards are in compliance with the Community legislation to varying degrees. However, the legislation on price and market systems either fundamentally differs from the Community acquis or there is no corresponding Turkish legislation thereon. It is necessary that relevant amendments and additions be introduced by reviewing the Community acquis the Turkish legislation with a view to eliminating discrepancies.

Public institutions and NGOs need to be reorganised in order to create a structure efficient enough to apply the Community legislation in the agricultural sector. In this respect, through certain legal arrangements public institutions currently dealing with issues of an agricultural nature need to be restructured under a single Ministry, and the “Board for Restructuring and Support in Agriculture” needs to be reorganised to function more efficiently.

Regarding NGOs, procurement institutions and producer unions in particular should be provided with the necessary legal structure to allow the proper application of CAP.

c) Necessary Institutional Changes

Land and water resources should be protected, improved and used economically in compliance with proper techniques, and land consolidation should be carried out in Turkey. Among 23.5 million hectares only 414 thousand hectares has been consolidated up to now. The work on land consolidation is carried out by various institutions. In order to eliminate this disorganised structure and to execute the work requirements throughout the country in a rapid and effective manner, as proposed by the 8th Five-year Development Plan, the Law on the Directorate General for Land Irrigation and Agriculture Reform, Law on Land Protection, and Framework Law on Agriculture should be enacted without delay.

Moreover, land consolidation studies should not be limited only to the integration of dispersed lands, renovation of villages and improvement of arable land services, but should also concentrate on the enlargement to optimum levels of land size of enterprises. In order to reach this objective, measures should be taken with respect to regulating the sales of agricultural enterprises and arable lands. These measures aim primarily at improving the agricultural structure, enlarging the land of small-scale agricultural enterprises, making land available for arable farming, preventing land from staying idle, and providing farmers with a piece of land large enough to generate sufficient income. As referred to in the 8th Five-year Development Plan, the “agricultural land supply office” should be established.

Turkey’s agricultural structure indicates that at the present time effective production planning can not be achieved for the following reasons; small-scale enterprises less than an optimum level of productivity, insufficient use of input and productive technology, and inadequate financing, which in turn lead to marketing of products by small-sized enterprises at less than competitive prices; the presence of several intermediaries on the marketing chain between the producers and consumers capturing the major portion of revenues; and an insufficient level of
awareness of supply and demand conditions for the products both in domestic and foreign markets. As a result of the issues highlighted above, either excess demand or overproduction problems arise depending on the harvest situation. Therefore, it is necessary to ensure the functioning of a market order that will allow the product design to adjust to changes in line with domestic and foreign requirements.

The organisation of producers is insufficient in rendering services on the orientation and marketing of the production and price formulation, through the supply of reasonably priced and high quality agricultural inputs in time and the use of appropriate technologies. Disorganisation of the authority and lack of coordination in the public sector still continue. Agricultural Credits, Agricultural Sales and other agriculture related cooperatives have been established in order to supply credits and inputs for farmers, provide various services and to market their products at their real values. In addition, various other institutions have been founded under various laws such as the irrigation unions, agricultural combat unions, unions providing services to villages, and milk unions. However, some of these organisations formed and run under various ministries and institutions, cause disorganisation in the rendering of services and result in the misuse of resources since continuous state allocations are required for their functioning. At the same time, these organisations have not been effective in resolving the problems concerning agricultural products.

With a view to eliminating the incoherent dispersal of authority in the agricultural sector and to incorporate services under a single authority, the “Draft Law on the Regulation of Agricultural Services” has been prepared and submitted to the Prime Ministry. The primary objective of the law is the execution of the following duties by a Higher Board established with the participation of institutions and bodies related to agriculture and agricultural support; determination of agricultural policy and targets; reorganisation of the agricultural sector; identification of the basic principles of sustainable agriculture; preparation of long-term agricultural plans; determination of agricultural support models; rational utilisation of the investments allocated for agriculture; support for the establishment of producer and breeder unions; execution of the activities on agricultural organisation under a single authority; determination of the intervention institutions that will be in charge of orientation; perform product design studies and inter-product parity studies; encourage insurance of agricultural products against natural disaster risks; extension of agricultural insurance applications; regulation of the principles on state support in the form of premiums; protection and improvement of agricultural lands that are limited in nature; ensure the continuous and productive utilisation of agricultural lands; prevention of the non-agricultural use of the land and the application of incorrect agricultural techniques; determination of the protection and utilisation priorities and application principles of the land; prevention of the splitting up of agricultural production plots into pieces smaller than economically suitable enterprise size; protection of all types of gene resources that may be the subject of agricultural production; and support and improvement of ecological and contractual agricultural production.

Moreover, the enactment of the “Draft Law Amending the Decree Law No. 441 on the Establishment and Duties of the Ministry of Agriculture and Rural Affairs” bears importance on the restructuring process of the Ministry of Agriculture and Rural Affairs.

Despite the fact that Turkey has the legal and financial infrastructure that enables the farmers to organise under cooperatives, there exists no legislation on the agricultural producer unions compatible with the EU norms. The Draft Law on Agricultural Producer Unions prepared on this matter and submitted to the Prime Ministry has not been enacted yet. This law should enter into force as soon as possible. Through this law the current organisational structure of farmers in the EU will be established in Turkey. Aimed at the establishment of non-profit organisations serving the producers from production to marketing, independent of the public sector, the law will provide support for organised farmers and ensure the implementation of
incentive measures. In addition, necessary arrangements will be carried out to make the control on these organisations autonomous.

The law enacted on Agricultural Sales Cooperatives and Unions was published in the Official Gazette No. 24081 of 16 June 2000. Through this law, in order to carry out their activities in an efficient and sustainable manner, cooperatives and unions are provided with a structure that is both autonomous and financially independent. The Restructuring Board is carrying out studies and making recommendations for cooperatives and unions with a view to restructuring them and ensuring a sustainable structure that will allow these institutions to carry on their activities in line with the principles of economic efficiency and productivity. Operation credits required by cooperatives and unions are provided from the general budget and from the Support and Price Stabilisation Fund upon the recommendation of the Restructuring Board. A transition period of four years is foreseen for the privatisation of Agricultural Sales Unions.

The marketing of agricultural products in Turkey is realised via three forms of institutional structures namely the public sector, private sector and cooperatives. Within this system, the following public sector institutions play an active role in marketing: TMO– Turkish Grain Board in the price formation of cereals, TSFAS– Turkish Sugar Factories Joint Stock Company in sugar beet, ÇAYKUR– Tea Enterprises Institution in tea and TEKEL in tobacco, salt and alcohol products. The agricultural reform laid down in the stand-by agreement between the Turkish Government and the IMF provides for the privatisation of some of these institutions.

The new Draft Law on Sugar prepared in accordance with EU legislation has been submitted to the Turkish Parliament. The Draft Law will repeal and replace the current Law No.60747 on Sugar. Following the entry into force of the Draft Law on Sugar, the factories currently owned by TSFAS will be privatised and will carry out contractual production of sugar beet and the price will be determined within the free market conditions. Through the Decision of the Higher Council on Privatisation published in the Official Gazette No 24279 of 6 January 2001, TSFAS has been included in the scope of the privatisation scheme.

It is foreseen that with the enactment of the Law on TEKEL (Monopoly), the factories owned by TEKEL will be privatised and starting from the year 2002 tobacco prices will be determined within the stock exchange.

The Turkish Grain Board (TMO) has been appointed as the authorised institution for the procurement of cereals nationwide and its status was announced in the Official Gazette No.18602 of 11 December 1984. However, according to the stand-by agreement the TMO:

- Will be downsized in 2001 into a structure that will allow only for extraordinary and strategic stocks (for intervention purposes),
- Will realise its procurements from the stock exchange at prices determined therein as of 2002.

Within the context of the adoption of the CAP, necessary steps will be taken to harmonise with the intervention agency and intervention price system of the Community as of 2002.

The Farmer Registration System will facilitate the payments of the Direct Income Support for Farmers, which was initiated in 2000 as a pilot project within the framework of the policies of “Restructuring and Support in Agriculture”, and which is to be extended gradually to the whole country after 2001. The farmers will be included in this Farmer Registration System according to their title deeds, other records and field studies. Hence, through the development of information it will be possible to create a marketing information system covering the data that can be used in agricultural marketing.
With the aim of providing a sustainable development in the agriculture sector and rural areas, the Agricultural Information System covers institutional arrangements for effective coordination in the fields of science and research, agricultural extension services and agricultural training.

This system, formed to apply efficient policies on natural resources, environment and food security, is comprehensive in content. It requires sound organisation and coordination. In addition to the Agricultural Information System, it is also important to provide appropriate cooperation between producers, consumers, NGOs and the foodstuff industry.

The 8th Five-Year Development Plan contains provisions for the establishment of the Agricultural Information System under the General Agricultural Policies section. The Plan also proposes the “enactment of the Framework Law on Agriculture, which embraces agricultural issues with cohesion”.

Stating that the “Board of Restructuring and Support in Agriculture shall be enlarged through the admission of new members since it does not explicitly and sufficiently include private sector companies and representatives of the farmer organisations”, the plan foresees the establishment of a consultation platform with extensive participation from the related sectors.

The Framework Law and the above mentioned Board, both aiming at the formation of high level coordination through efficient organisation of the institutions directly or indirectly related to the agricultural sector, as well as the Agricultural Information System, are all in harmony and are of great significance with regard to the objectives set.

Moreover, NGOs should be provided with a structure that will enable them to implement the CAP.

d) Additional Staffing and Training Requirements for the Implementation of Amendments and Modifications

Relevant public institutions, particularly the Ministry of Agriculture and Rural Affairs, and NGOs should be strengthened with adequate number and quality of personnel to enable them to implement the Community acquis. The personnel of these institutions should be trained on the adoption of the Community acquis. Additional training facilities are required particularly for the organisation of the legislation and the transition to the Agricultural Information System. At the moment, it is not possible to specify the quantity of staff required.

e) Necessary Investments

Necessary investments should be realised to continue the agricultural reform, to improve the rural and agricultural infrastructure and the structure of agricultural enterprises, for the efficient utilisation of technology, to develop research, extension and training services, and for the transition to the Agricultural Information System at Community standards.

At year 2000 prices, for 1 hectare of land approximately 680 million TL. is required for leveling, drainage, construction of roads, engineering services for land consolidation, and construction of irrigation and drainage canals. Out of 27.6 million hectares of arable land in Turkey only 8.5 million hectares is economically suitable for irrigation. Suitable arrangements are required for 8 million hectares of irrigated land and for 15 million hectares of dry arable land.

III. Time schedule

Short Term

Following issues are set forth as short term priorities; establishment of an appropriate alignment strategy for veterinary and plant health legislation of the Community with first
priority the harmonisation of the legislation to combat animal and plant diseases; improvement of enforcement capacity, in particular of laboratory testing, inspection arrangements and establishments; development of a functioning land register, animal identification, plant passport systems; and the improvement of administrative structures in order to monitor the agricultural markets, and implement environmental, structural and rural development measures.

Medium Term
As for the medium term, it is proposed to complete preparations for the acquis in agricultural and rural development policies; to modernise food-processing establishments (meat, dairy processing plants) in accordance with the EU hygiene and public health standards; to establish testing and diagnostic facilities, and to ensure the transition to the Agricultural Information System at Community standards.

Activities on the improvement of rural and agricultural infrastructure, as well as the structure of agricultural enterprises and on the efficient utilisation of technology close to Community levels, will be continued both in the short and medium term.

IV. Financing
It is quite difficult to determine the exact financing requirement without carrying out a detailed analysis. However, with general assumptions, it is estimated that financial resources of 8 to 10 billion EURO is required in the short and medium term in order to continue with the agricultural reform, to improve the rural and agricultural infrastructure as well as the structure of agricultural enterprises, to ensure the adoption of the Agricultural Information System at Community standards, to adopt the Community acquis, and for other related expenses. It will be necessary to utilise the Community support programs to finance these activities.

Moreover, as regards the products that will be harmonised with the CAP within the framework of the accession negotiations, a need for additional financing for harmonisation, especially in pricing and market policies, may arise. Similarly, the support of the Community will be needed in financing the above-mentioned requirements.

4.8.3

Plant health
I- Priority description

a) Current Status
In lieu of the Plant Health Certificate system, EU Member states are applying a Plant Passport system, which is based on the principle of control at the production site. However, Plant Health Certificates are used in trade with third countries. The Plant Passport system does not exist in Turkey. At the moment, there is no application concerning the registration of producers (with the exception of producers of seeds and vegetative propagation materials), which is the prerequisite for the implementation of Plant Passports.

Within the EU, especially potato and citrus fruit producers, warehouses and dispatching centers are registered and checked continuously. Plants and plant products that enter the EU from third countries are checked at the first entry point and then sent to the buyer country. Thus, each member state is obliged to build quarantine laboratories in compliance with the relevant standards.

b) EU Acquis
The relevant EU legislation is laid down in Volume II.
c) Implementing Institution
In Turkey, the Directorate General for Protection and Control attached to the Ministry of Agriculture and Rural Affairs is the institution responsible for the issues related to plant health. Plant quarantine, plant health applications and control services are rendered by the Directorate General.

d) Final Objective
Plant health system of the Community will be adopted with priority being given to the harmonisation with legislation on the combat against plant diseases. 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
Turkish legislation on plant health is compatible with Community legislation to a great extent. EU legal arrangements on this matter are based on Council Directive No. 77/93/EEC. In Turkey, Law No. 6968 on Agricultural Combat and Agricultural Quarantine is taken as the basis. The Statute on Agricultural Quarantine and the Regulation on Agricultural Quarantine, enforced in 1991, on the entrance of plants and plant products to the country are both compatible with the EU legislation as regards basic principles. In particular, the Regulation on Agricultural Quarantine was prepared according to the EU regulation on quarantine, in terms of principles and format. The Plant Health Certificate used in the movement of plants and plant products around the world is identical with the certificates of the Community with regard to compatibility with standards.

b) Necessary Amendments and Modifications in the Corresponding Turkish Legislation
Short Term
It is proposed to introduce legal arrangements to take under control Ralstonia solanacearum, which is the causal agent of bacterial brown rot disease in potatoes. A regulation will be prepared that will cover provisions on the status, monitoring and control of Ralstonia solanacearum, which is a serious disease in potatoes and tomatoes. This issue is obligatory within the EU (Council Directive No. 98/57/EC).


Legal arrangements are required with regard to informing the exporter country in cases where imported plant or plant products are found, after the application of relevant controls, to not be in compliance with the conditions, or contaminated with harmful organisms. This matter is obligatory within the EU (Commission Directive No. 94/3/EC). The issue will be resolved through the insertion of an article in the current Regulation on Agricultural Quarantine.

Medium Term
Among the EU member states, plant passports are used in the movement of plants, plant products and other materials. Since this is an obligatory application, necessary infrastructure and legal arrangement will be introduced in Turkey in the medium term (Commission Directive No. 92/105/EEC).

As regards the registration and plant health control (Commission Directive No. 93/50/EEC) of
potato and citrus fruit producers (with the exception of seed production), people or institutions storing and distributing these products, which are looked upon with importance by the EU, Provincial Directorates will keep the registries and carry out the necessary checks in accordance with EU standards. As a result, compliance of the products with the EU standards will be ensured. It is foreseen that the necessary legal arrangements will be completed by the end of 2003. Since Turkey does not have a functioning producer registration system for the time being, arrangements on the issue will be completed in the medium term.

Within the EU, prior approval is not required for imports, including those of vegetative propagation materials. Imports enter the country after being checked at the port of entry. However, in Turkey, the prior approval of the Ministry is required only for imports of vegetative propagation materials. Law No. 6968 and the Statute on Agricultural Quarantine should be amended to abolish this approval procedure.

c) Necessary Institutional Changes
The Directorate General for Protection and Control is the institution responsible for plant health practices in Turkey. In addition to plant health services, the Directorate General has a number of units on animal health, control on fishery products, pesticide license services and foodstuff control services etc. The Directorate General for Agricultural Combat and Agricultural Quarantine should be established and should be linked directly to the provincial organisations in order to implement practices on plant health in a more concerted and well-organised manner, and to look after the issue at a higher level of bureaucracy.

d) Necessary Investments
It is important to bring the standards of the Agricultural Quarantine Directorates, carrying out quarantine services, to those of the EU. It is proposed to establish plant health laboratories under the Agricultural Quarantine Directorates based in Istanbul, Izmir and Içel, the most important entry ports in Turkey as concerns agricultural products. There exists the need to provide these laboratories with trained staff to conduct the necessary tests, with equipment, warehouse and covered quarantine areas. Additionally, it is important to develop a swift communication system, which will also cover the member states (Commission Directive No. 98/22/EC).

It is estimated that an investment of $ 584,000 will be required for the laboratory buildings, quarantine warehouses, greenhouses, laboratory equipment, chemicals, and communication system essential for the establishment of laboratories in Istanbul, Izmir and Içel under three Agricultural Quarantine Directorates. Agricultural Combat Research Institutes will provide training on applications of standard test methods for 15 technical staff (mycology, bacteriology, virology, nematology and entomology) and for 9 assistant staff that will be employed in these laboratories.

e) Additional Staffing and Training Requirements for the Implementation of Amendments and Modifications
It will be beneficial if a phytosanitary expert from the EU Commission visits Turkey to observe the practices on site and give seminars on the adoption of Agricultural Quarantine principles to the EU rules and on the relevant applications.

III. Time schedule
Information on the time schedule is laid down under the title “Necessary Amendments and Modifications in the Corresponding Turkish Legislation”.

IV. Financing
Financial support will be needed to take the necessary measures against the diffusion of serious quarantine organisms that have been identified recently in Turkey. Moreover,
Advance payment of the costs of eradication of the products will increase the success of
the quarantine eradication practices. Therefore, a certain budget allocation needs to be
earmarked each year.

**ANNEX V- LIST OF INPUTS TO BE PROVIDED** (only indicative)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>UNIT PRICE</th>
<th>ITEM TOTAL</th>
<th>TOTAL PRICE (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vortex mixer</td>
<td>330</td>
<td>8</td>
<td>2.640</td>
</tr>
<tr>
<td>Electronic pipette controller</td>
<td>250</td>
<td>16</td>
<td>4.000</td>
</tr>
<tr>
<td>Adjustable micropipettes</td>
<td>300</td>
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<td>3.600</td>
</tr>
<tr>
<td>pH-meter</td>
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<td>4</td>
<td>6.000</td>
</tr>
<tr>
<td>Magnetic stirrer</td>
<td>600</td>
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<td>Bench balance 1 mg</td>
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<td>Bench balance 10 mg</td>
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<td>Elisa plate washer</td>
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<tr>
<td>Elutriator-sieving machine</td>
<td>3.000</td>
<td>4</td>
<td>12.000</td>
</tr>
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</table>
| Item                                               | Quantity | Unit | Price  
|----------------------------------------------------|----------|------|--------
| Sieves set                                          | 1.500    |     | 12.000 |
| Fenwick soil washing apparatus                     | 500      |     | 2.000  |
| In line wash system                                | 710      |     | 2.840  |
| Generator                                          | 20.000   |     | 80.000 |
| Reciprocating paddle blender                       | 3.400    |     | 13.600 |
| Laboratory modular furniture                       | 22.000   |     | 88.000 |
| Air purification system                            | 40.000   |     | 160.000|
| Glassware expenses (details to be provided)        |          |     | 194.400|
| **SUB TOTAL**                                       |          |     | **1.508.000** |

**EQUIPMENT LIST FOR POTATO LABORATORIES ANKARA, IZMIR (BORNOVA) AND ADANA PLANT PROTECTION RESEARCH INSTITUTES AND NIGDE POTATO RESEARCH INSTITUTE**

| Item                                               | Quantity | Unit | Price  
|----------------------------------------------------|----------|------|--------
| Vortex mixer                                       | 330      |     | 2.640  |
| Electronic pipette controller                      | 250      |     | 4.000  |
| Adjustable micropipettes                            | 300      |     | 3.600  |
| pH-meter                                           | 1.500    |     | 6.000  |
| Magnetic stirrer                                    | 600      |     | 2.400  |
| Bench balance 1 mg                                 | 2.800    |     | 11.200 |
| Bench balance 10 mg                                | 2.300    |     | 9.200  |
| Homogeniser                                        | 3.200    |     | 51.200 |
| Blender                                            | 400      | 8   | 3.200  |
| Refrigerated incubator                             | 3.600    | 16  | 57.600 |
| Barcode scanner                                     | 1.200    | 16  | 19.200 |
| Soil steriliser                                     | 5.700    | 4   | 22.800 |
| Vacuum pump                                        | 1.200    | 4   | 4.800  |
| Refrigerated centrifuge                            | 9.000    | 8   | 72.000 |
| Fluorescence microscope with screen                | 16.000   |     | 64.000 |
| Orbital shaker-incubator                           | 6.000    | 4   | 24.000 |
| Orbital shaker                                     | 2.000    | 8   | 16.000 |
| Laminar flow cabinet                               | 6.000    | 8   | 48.000 |
| Water bath                                         | 850      | 4   | 3.400  |
| Fume hood                                          | 7.400    | 4   | 29.600 |
| Blower for fume hood                               | 3.800    | 4   | 15.200 |
| Autoclave                                          | 5.500    | 4   | 22.000 |
| Ice flake maker                                    | 8.000    | 4   | 32.000 |
| Ultra-low temperature freezer                      | 16.000   | 4   | 64.000 |
| Deep-freezer                                       | 1.800    | 8   | 14.400 |
| Refrigerator                                       | 800      | 16  | 12.800 |
| Glassware washer                                   | 2.500    | 4   | 10.000 |
| Thermal cycler                                      | 6.000    | 4   | 24.000 |
| Micro plate compatible thermal cycler              | 2.400    | 4   | 9.600  |
| Smart Cycler                                       | 55.000   | 1   | 55.000 |
| Horizontal electrophoresis chambers                | 1.500    | 4   | 6.000  |
| UV transilluminator                                | 2.500    | 4   | 10.000 |
| Digital camera system                              | 1.200    | 4   | 4.800  |
| Computer                                           | 1.500    | 20  | 30.000 |
| Laser printer                                      | 300      | 4   | 1.200  |
| Sterilising oven                                   | 6.200    | 4   | 24.800 |
| Power supply                                       | 3.800    | 4   | 15.200 |
| Water purification system                          | 4.200    | 4   | 16.800 |
| Stainless steel utility carts                      | 410      | 16  | 6.560  |
| Stereomicroscope                                   | 1.400    | 12  | 16.800 |
| Cold light source                                  | 450      | 4   | 1.800  |
### Equipment List for Pesticide Quality Control Laboratory in Ankara Plant Protection Research Institute and Istanbul Province Directorate

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microscope</td>
<td>2.700</td>
<td>8</td>
</tr>
<tr>
<td>Plant growth cabinet</td>
<td>8.000</td>
<td>16</td>
</tr>
<tr>
<td>Elisa reader</td>
<td>3.000</td>
<td>4</td>
</tr>
<tr>
<td>Elisa plate washer</td>
<td>1.000</td>
<td>4</td>
</tr>
<tr>
<td>Elutriator-sieving machine</td>
<td>3.000</td>
<td>4</td>
</tr>
<tr>
<td>Sieves set</td>
<td>1.500</td>
<td>8</td>
</tr>
<tr>
<td>Fenwick soil washing apparatus</td>
<td>500</td>
<td>4</td>
</tr>
<tr>
<td>Curvimeter</td>
<td>700</td>
<td>4</td>
</tr>
<tr>
<td>Camera lucida</td>
<td>10.000</td>
<td>4</td>
</tr>
<tr>
<td>Orbital shaker</td>
<td>1.600</td>
<td>4</td>
</tr>
<tr>
<td>In line wash system</td>
<td>710</td>
<td>4</td>
</tr>
<tr>
<td>Generator</td>
<td>20.000</td>
<td>4</td>
</tr>
<tr>
<td>Reciprocating paddle blender</td>
<td>3.400</td>
<td>4</td>
</tr>
<tr>
<td>Laboratory modular furniture</td>
<td>22.000</td>
<td>4</td>
</tr>
<tr>
<td>Air purification system</td>
<td>40.000</td>
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</tr>
<tr>
<td><strong>SUB TOTAL</strong></td>
<td>1,432,000</td>
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</table>

### Equipment List for Pesticide Residue Laboratories in Adana, Ankara and Izmir Plant Protection Research Institutes

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPLC</td>
<td>60.000</td>
<td>2</td>
</tr>
<tr>
<td>GC</td>
<td>60.000</td>
<td>2</td>
</tr>
<tr>
<td>Electrolytic analyser</td>
<td>10.000</td>
<td>1</td>
</tr>
<tr>
<td>Washing machine</td>
<td>2.500</td>
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</tr>
<tr>
<td>Density meter</td>
<td>10.000</td>
<td>1</td>
</tr>
<tr>
<td>Flash point meas.app.</td>
<td>4500+85</td>
<td>1 + 1</td>
</tr>
<tr>
<td>Drying oven</td>
<td>2.000</td>
<td>2</td>
</tr>
<tr>
<td>Seed treatment equipment</td>
<td>15.000</td>
<td>1</td>
</tr>
<tr>
<td>Water bath</td>
<td>3.000</td>
<td>2</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>700</td>
<td>2</td>
</tr>
<tr>
<td>Atomic absorption spectr.</td>
<td>35.000</td>
<td>1</td>
</tr>
<tr>
<td>Viscosity meter</td>
<td>3.000</td>
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</tr>
<tr>
<td><strong>SUB TOTAL</strong></td>
<td>339,900</td>
<td></td>
</tr>
</tbody>
</table>

### Equipment List for Pesticide Quality Control Laboratory in Ankara Plant Protection Research Institute and Istanbul Province Directorate

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>GC/MS</td>
<td>180.000</td>
<td>2</td>
</tr>
<tr>
<td>HPLC</td>
<td>60.000</td>
<td>2</td>
</tr>
<tr>
<td>GC</td>
<td>60.000</td>
<td>2</td>
</tr>
<tr>
<td>Waring blender</td>
<td>2.500</td>
<td>2</td>
</tr>
<tr>
<td>Mill</td>
<td>4.500</td>
<td>1</td>
</tr>
<tr>
<td>Drying oven</td>
<td>2.000</td>
<td>1</td>
</tr>
<tr>
<td>Homogeniser</td>
<td>5.000</td>
<td>1</td>
</tr>
<tr>
<td>Autompipette washer</td>
<td>5.500</td>
<td>1</td>
</tr>
<tr>
<td>Uninter.Power Supply</td>
<td>1.000</td>
<td>1</td>
</tr>
<tr>
<td>Rotary vacuum evaporator</td>
<td>5.000</td>
<td>2</td>
</tr>
<tr>
<td><strong>SUB TOTAL</strong></td>
<td>633,000</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** 3,913,900
### COSTS OF IT SYSTEM NETWORK FOR BIPs

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Cost (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hardware</strong></td>
<td></td>
</tr>
<tr>
<td>1 main server, having backup facility, disk unit, power supplies,</td>
<td>200.000</td>
</tr>
<tr>
<td>monitors.</td>
<td></td>
</tr>
<tr>
<td>One workstation (PC, modem and printer) for 25 units (6 central</td>
<td>25.000</td>
</tr>
<tr>
<td>headquarter 7 Provincial quarantine Directorate, 4 Plant Quarantine</td>
<td></td>
</tr>
<tr>
<td>Lab, 4 Plant Protection Research Institute) 1.000 € each.</td>
<td></td>
</tr>
<tr>
<td>Unlimited Internet connection for 25 units</td>
<td>25.000</td>
</tr>
<tr>
<td><strong>Software</strong> (such as EPPO database and plant quarantine software</td>
<td>80.000</td>
</tr>
<tr>
<td>plus Microsoft office)</td>
<td></td>
</tr>
<tr>
<td><strong>Training</strong></td>
<td>70.000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>400.000</strong></td>
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</tbody>
</table>