Improving the Management of FMD Surveillance and Control Measures in Eastern Anatolia, Turkey

Summary of draft project document for actions in 2006-7

**Direct Beneficiary:**
Turkey

**Indirect beneficiaries:**
Georgia, Armenia
Southern Balkan countries

Component of the EUFMD/FAO support to regional control of FMD in the frontier zone:

Trans-Caucasian countries
Islamic Republic of Iran
Turkey
Acknowledgement

David Hadrill is extremely grateful to Dr Sinan Aktaş, Deputy Director of Şap Enstitüsü (FMD Institute), and to Dr Ufuk Dinler, Director of Erzurum Veterinary Control and Research Institute for their advice during the mission.

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Abbreviations

YTL (new) Turkish Lire
DPC Deputy Project Coordinator
FAOR FAO Representative
FMD foot and mouth disease
GDPC General Directorate of Protection and Control
GoT Government of Turkey
LOA Letter of Agreement
NPC National Project Coordinator
TOR terms of reference
VCRI Veterinary Control and Research Institute

Glossary of Turkish words

kaymakam District mayor or headman
kurush one hundredth of one Turkish Lire
muhtar Village Headman
şap foot and mouth disease

Tables

Table 1. Cost estimates of donor-funded inputs to proposed project.

Table 2. Government of Turkey contribution to proposed project
1 Summary of Proposal (*EUFMD Secretariat*)

- The aim is to provide technical support that will significantly reduce risk of disease movement through eastern Turkey into rest of Anatolia and to Caucasus countries.
- And to increase the likelihood of successful application of mass vaccination and other measures in the national FMD eradication programme whose start date is taken to be 2007.
- Two years of technical support to the GDPC to instigate management changes that will result in greater capacity to plan and implement vaccination based FMD control.
- Technical support to improve control of FMD in Provinces bordering to Georgia and Armenia, and to Iran, focussing on improved outbreak investigation and implementation of preventive measures.
- Builds on experience gained in epidemiologic investigations 2004-5, including application of PE (participatory epidemiology) investigations.
- Component of regional FMD protection program, including parallel actions in Caucasus and in Iran.

2 Introduction (*EUFMD Secretariat*)

Prevention of disease movement through the eastern borders of Turkey towards western Turkey, and into the Caucasus, is a major concern for the EUFMD Commission and an agreed part of the EUFMD Strategic Plan for 2005-8 is the re-inforcement of control measures that will reduce risk of entry and dissemination of EXOTIC virus incursions.

The support is also aimed to increase likelihood of success of measure to control ENDEMIC viruses present in eastern Turkey, under the national programme.

A concept note for the technical support project was prepared between FAO (EUFMD Secretariat) and GDPC, after liaison with the EC funded twinning project during June 2005. The concept note was presented in September 2005 at an eradication programme planning meeting in Ankara, and a consultant recruited to develop the project document in October, con-incident with the conclusion of the GDPC/SAP Insitute/FAO activities in Erzurum. The consultant’s report and his draft of the project document have been circulated to GDPC for comments, and their comments incorporated, in November.

**Note:** the document including budgeting does not have EUFMD Secretariat’s clearance and is for discussion purposes. It will be necessary for FAO to modify these according to its practices for project budgeting and administration.
3 Target area

It is proposed that the project has four administrative centres (offices) located at:

- The Head of Animal Health Department, Epidemiology and Animal Disease Combat Sections, GDPC, Ankara
- The FMD (Şap) Institute, Ankara,
- The Veterinary Control and Research Institute, Erzurum, and
- The Veterinary Control and Research Institute, Elazig.

The target area for field work is epidemiologically significant Provinces in eastern Anatolia, especially where there is risk of FMD entry and onward spread. Specifically, the following 14 (including Erzurum and Elazig) Provinces will be covered:

<table>
<thead>
<tr>
<th>Erzurum</th>
<th>Elazig</th>
<th>Ankara</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Agri</td>
<td>1. Bingöl</td>
<td>1. Afyon</td>
</tr>
<tr>
<td>2. Ardahan</td>
<td>2. Bitlis</td>
<td>2. Çorum</td>
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<tr>
<td>5. Iğdir</td>
<td>5. Siırnak</td>
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<tr>
<td>6. Kars</td>
<td>6. Van</td>
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</tbody>
</table>

Each Province is subdivided into Districts. Each District has a Ministry of Agriculture Office with a veterinarian or a veterinary technician. Typically, in Erzurum Province, Districts have 50 or 60 villages. However, in some Provinces elsewhere in Turkey there may be as few as 10 villages.

There is an option on including some provinces around Ankara, as indicated above. It is recommended to do so in order to follow up animal movement from Anatolia to the Ankara area, for trade or slaughter.

4 Project activities

4.1 Project purpose and outputs

The draft concept note for the project states the project’s purpose, concept and outputs as follows.

**Purpose:** Establish into operation FMD management and monitoring systems that meet requirements of the Government of Turkey (GoT) FMD eradication strategy and which address stakeholders’ participation issues in FMD control.

**The idea:**
- The Veterinary Control and Research Institutes (VCRI) Erzurum and Elazig are supported and developed to provide expert and independent regional monitoring of FMD
epidemiology and the effectiveness of control measures. Lessons learnt can be used to inform, or roll-out “best practices and procedures” to other regions.

- Vaccine delivery modalities are identified, costed, and as far as possible evaluated during the four campaigns to occur in 2006 and 2007.
- A consultation and communications centre is established/operating to address reporting and policy implementation issues with stakeholders.
- The regional centre may be a sustainable approach after 2007, and act as training centre for rolling out the eradication monitoring service – e.g. development of local implementation (local disease control centres (LDCC), lessons to respond to FMD and other emergency events.

**Outputs**

1. Functional FMD surveillance and outbreak investigation unit with operational capacity for monitoring reporting rates, epizootic spread and delivery and impact of vaccination and other control measures;
2. Delivery procedures and modalities identified that enable campaigns to overcome vaccine delivery constraints and meet campaign targets;
3. Regional and provincial consultative procedures in place to enable stakeholders to participate in solving problems associated with FMD eradication strategy;
4. Communications capacity in place and operational to address requirements for disease reporting and uptake /compliance with control measures;

**4.2 Activity plan**

[Refer to Chart in Section 4.4]
### 4.3 Time chart

<table>
<thead>
<tr>
<th>Activity</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Project start-up and management</td>
<td></td>
<td></td>
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<tr>
<td>1.1 Staff assignment/recruitment</td>
<td></td>
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<tr>
<td>1.2 Establish offices: Ankara, Erzurum, Elazig</td>
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<tr>
<td>1.3 Procurement: vehicles, office equipment, furniture, etc.</td>
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<tr>
<td>1.4 Plan implementation (coordination with GDPC vaccination)</td>
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<td></td>
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<tr>
<td>1.5 Plan project staff training &amp; study tour</td>
<td></td>
<td></td>
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<tr>
<td>1.6 Base-line surveys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.7 Reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Disease investigation and monitoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 Actively search outbreaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2 Review procedures and plans for vaccination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3 Control of outbreaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4 Back and forward tracing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5 Support local disease control centres?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Vaccination [undertaken by the authorities]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Consultation and communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 Develop communications strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2 Convene meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3 Set up “hotline” for outbreak reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4 Subcontract media specialist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5 Organise workshops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1 Epidemiology training &amp; study tour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2 English language training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Mid-term review and evaluation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## 5 Inputs and costs

### 5.1 FAO inputs

Cost estimates for FAO inputs, as discussed with the FMD Institute Deputy Director, are shown in Table 1 below.

<table>
<thead>
<tr>
<th>Item</th>
<th>quantity</th>
<th>unit</th>
<th>unit cost</th>
<th>subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a 4 WD vehicles</td>
<td>3</td>
<td>vehicle</td>
<td>35,000.00</td>
<td>105,000.00</td>
</tr>
<tr>
<td>1b DSA for Task Force teams (4 persons * 2 teams * 100 days * 2 years)</td>
<td>1600</td>
<td>DSA</td>
<td>35.00</td>
<td>56,000.00</td>
</tr>
<tr>
<td>DSA for Project Coordinators (4 persons * 50 days * 2 years)</td>
<td>400</td>
<td>DSA</td>
<td>35.00</td>
<td>14,000.00</td>
</tr>
<tr>
<td>DSA for field visits from FMD Institute</td>
<td>100</td>
<td>DSA</td>
<td>35.00</td>
<td>3,500.00</td>
</tr>
<tr>
<td>Fuel costs (40,000 km per veh per year; 10 km/litre = 240,000/10 litres)</td>
<td>24,000</td>
<td>litre</td>
<td>2.00</td>
<td>48,000.00</td>
</tr>
<tr>
<td>Vehicle maintenance costs</td>
<td>3</td>
<td>per vehicle</td>
<td>1,000.00</td>
<td>3,000.00</td>
</tr>
<tr>
<td>1c Salary of driver (2 drivers, 2 years)</td>
<td>4</td>
<td>annual salary</td>
<td>12,000.00</td>
<td>48,000.00</td>
</tr>
<tr>
<td>1d Office furniture</td>
<td>2</td>
<td></td>
<td>750.00</td>
<td>1,500.00</td>
</tr>
<tr>
<td>Computers - laptops</td>
<td>4</td>
<td>laptop</td>
<td>1,250.00</td>
<td>5,000.00</td>
</tr>
<tr>
<td>Computers - desktops</td>
<td>4</td>
<td>desktop</td>
<td>1,000.00</td>
<td>4,000.00</td>
</tr>
<tr>
<td>Printers</td>
<td>3</td>
<td>printer</td>
<td>200.00</td>
<td>600.00</td>
</tr>
<tr>
<td>Photocopier</td>
<td>2</td>
<td>copier</td>
<td>400.00</td>
<td>800.00</td>
</tr>
<tr>
<td>Consumables (paper, printer toner, etc)</td>
<td>lump sum</td>
<td></td>
<td></td>
<td>1,000.00</td>
</tr>
<tr>
<td>1e Meetings for stakeholders (transport costs and DSA, 10 persons * 7 meetings)</td>
<td>70</td>
<td>participants</td>
<td>35.00</td>
<td>2,450.00</td>
</tr>
<tr>
<td>English language training (per month @ 500.00 in Elazig and Erzurum, 3 mo. each)</td>
<td>6</td>
<td>month</td>
<td>750.00</td>
<td>4,500.00</td>
</tr>
<tr>
<td>Epidemiology training (short course in EU for 8 veterinarians inc. travel and DSA) with study tour</td>
<td>8</td>
<td>course</td>
<td>7,500.00</td>
<td>60,000.00</td>
</tr>
<tr>
<td>Other costs (fax machine, scanner, GPS equipment, maps, etc)</td>
<td>lump sum</td>
<td></td>
<td></td>
<td>10,000.00</td>
</tr>
<tr>
<td>Base-line study (sero-survey: vacutainers, needles, cytubes, test kits; &amp;/or PRA survey)</td>
<td>estimate</td>
<td></td>
<td></td>
<td>10,000.00</td>
</tr>
<tr>
<td>2 Support services - technical and operational</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>2a Top-up of salary of National and Regional Coordinators (4 persons, USD 400/month)</td>
<td>96</td>
<td>per month</td>
<td>400.00</td>
<td>38,400.00</td>
</tr>
<tr>
<td>2b FAO Technical Support Services from AGAH, Rome (2 missions * 2 weeks)</td>
<td>2</td>
<td>missions</td>
<td>8,000.00</td>
<td>16,000.00</td>
</tr>
<tr>
<td>2c Consultants</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Participatory impact assessment of disease control &amp; delivery options</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>consultant to train assessors (10 days)</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>consultant to help with the analysis and feed-back workshop (10 days)</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>20 days fee plus DSA</td>
<td>20</td>
<td>day</td>
<td>500.00</td>
<td>10,000.00</td>
</tr>
<tr>
<td>consultant travel</td>
<td></td>
<td></td>
<td></td>
<td>2,000.00</td>
</tr>
<tr>
<td>Costs of other evaluation team member(s) if any</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>
3 Resources for stakeholder consultations/communications

3a Fee for contracted media specialist and production of materials 40,000.00
3b Establish Telephone Hotline NO ?
3c Resources for workshops (easel, flip-chart paper, pens, refreshments, DSA and travel) 8 workshop 1,250.00 10,000.00

4 "Unallocated” e.g. vaccine subsidy depending on options for vaccination delivery. NO ?

5 "Additional training component in Turkish language" - EU FMD Initiative

6 FMD diagnostic kits?

<table>
<thead>
<tr>
<th>item</th>
<th>quantity</th>
<th>unit</th>
<th>unit cost</th>
<th>subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterinarians in Task Force (8 persons*24 months)</td>
<td>192</td>
<td>salary per month</td>
<td>750.00</td>
<td>144,000.00</td>
</tr>
<tr>
<td>Office rooms for 24 months in 2 centres</td>
<td>48</td>
<td>rent per month</td>
<td>500.00</td>
<td>24,000.00</td>
</tr>
<tr>
<td>$ap Institute - diagnostic services</td>
<td>2</td>
<td>estimate per year</td>
<td>20,000.00</td>
<td>40,000.00</td>
</tr>
<tr>
<td>Internet connection to (3 offices * 2 year)</td>
<td>6</td>
<td>rent per year</td>
<td>100.00</td>
<td>600.00</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td></td>
<td></td>
<td>208,600.00</td>
</tr>
</tbody>
</table>

Notes
1. The numbers (1a, etc.) in the left column correspond with those in the draft concept note.
2. The vehicle cost is for a 4-WD double cab pick-up, excluding VAT but including Turkish “special tax”.
3. The DSA rate of USD 35.00 per day is the same rate that has been used in related a project and is considered to be a necessary incentive for Institute staff whenever they leave the office and go to the field.
4. The FMD ($ap) Institute in Erzurum has sufficient computers and office furniture, and so no provision is made for purchase of equipment for a third office there.
5. The base line survey costs will be estimated based on sample sizes to be calculated by the Deputy Director of the $ap Institute.
6. The monthly salary of the most senior Institute staff is USD 800.00 per month, less than that of drivers and general unskilled staff. It is considered necessary to offer a “top-up” to their salaries to encourage interest in and involvement with the project.
7. The cost of FAO Support Services should be entered by FAO.
8. Additional costs for monitoring (mid-term review) and evaluation (impact assessment) should be entered by FAO.

5.2 GoT inputs

An estimate of the Government of Turkey contribution is shown in table 2 below.

Table 2. GoT contribution to proposed project
Annex 1

Sections from project document – Activity and Implementation issues

4.2 Activity plan

To achieve the outputs above, the following activities are indicated:

1  Project start-up and management
   1.1 Staff assignment/recruitment
   1.2 Establish offices: Ankara, Erzurum, Elazig
   1.3 Procurement: vehicles, office equipment, furniture, etc.
   1.4 Plan implementation (coordination with GDPC vaccination)
   1.5 Plan project staff training & study tour
   1.6 Base-line surveys
   1.7 Reporting

2  Disease investigation and monitoring
   2.1 Actively search outbreaks
   2.2 Review procedures and plans for vaccination
   2.3 Control FMD outbreaks
   2.4 Back and forward tracing
   2.5 Support local disease control centres?

3  Vaccination [undertaken by the authorities]

4  Consultation and communication
   4.1 Develop communications strategy
   4.2 Convene meetings
   4.3 Set up “hotline” for outbreak reporting
   4.4 Subcontract media specialist
   4.5 Organise workshops

5  Training
   5.1 English language training
   5.2 Epidemiology training and study tour

6  Mid-term review and evaluation

5.3 Implementation considerations

1  Project start-up and management
   1.1 Staff assignment/recruitment

   A part-time National Project Coordinator should be based at the (GDPC). There should be
   two part-time Deputy (Regional) Coordinators, based at Erzurum and Elazig. One part-time
   Deputy (Regional) Coordinator based at Sap Institute, Ankara;

   or
There should be three part-time Deputy (Regional) Coordinators, based at Sap Institute, Ankara, Erzurum and Elazig.

It is proposed that the part-time National Project Coordinator (NPC) and the Deputy Project Coordinator (DPC) positions are filled, respectively, by the Director of the National FMD (Şap) Institute and the Directors of the Erzurum and Elazig Veterinary Control and Research Institutes (VCRI). It is proposed that the Veterinary Task Force members (four vets each in Erzurum and Elazig) are assigned by the GoT.

It needs to be decided whether a Communications Officer is recruited to work together with the veterinary teams. If this position is created, he/she should be recruited according to normal procedures (advertise, short-list, interview). The preference from the FMD Institute representative consulted during the mission is that this post is not created, but that the Task Force members decide what external requirements there are from a media specialist, and then sub-contract the services. This approach risks under-participation by all stakeholders, particularly the villagers.

An alternative option is the appointment of an active Project Assistant, perhaps an Associate Professional Officer or UN Volunteer. Proposed TOR are given in the appendix and these TOR include both administrative and communications duties.

1.2 Establish offices: Ankara, Erzurum, Elazig
In Ankara two offices would be located in the GDPC and FMD Institute. It may be that the project does not require a separate office there, but can be managed by the NPC from his offices. In Erzurum and Elazig, FMD Institute, Ankara, the project offices would be located within the VCRI and FMD Institute.

1.3 Procurement: vehicles, office equipment, furniture, etc.
Three vehicles are required: one each for Ankara, Erzurum and Elazig. In Ankara, there are sufficient computers and no more need to be procured. The VCRI project offices need to be furnished and equipped.

1.4 Plan implementation (coordination with GDPC vaccination)
The General Directorate of Protection and Control (GDPC) is responsible for the national vaccine programme. It is desirable that the proposed project tests alternative strategies for implementation, but this may require a change in the law. For example, if proposed District-level Local Disease Control Centres were to plan and implement vaccination, this would apparently be outside existing Turkish legislation, under which sole responsibility is designated to the GDPC and Provincial Directorates.

1.5 Plan project staff training & study tour
The training will be planned during project inception. See Activity 5, below, for description of training required by project staff.

1.6 Base-line surveys
It is planned to survey Erzurum Province, where a pilot participatory epidemiology study has been carried out in 2005, and possibly one other province. The sero-survey would detect infection in cattle one year old and younger. It is expected that this would be a useful indicator of impact of the project and would be reassessed after two years.
The project will also utilise the findings of the participatory epidemiology exercise carried out in Erzurum Province in 2005 for base-line indicators. Some or all of the same indicators will be assessed at the end of the project implementation period in the final evaluation.

1.7 Reporting
Proposed reports are listed in the section on Project Management.

2 Disease investigation and monitoring
2.1 Actively search outbreaks
2.2 Review procedures and plans for vaccination
2.3 Control of outbreaks
2.4 Back and forward tracing
Activities 2.1 to 2.4 are the core of the disease investigation and monitoring component of the project. The introduction of these epidemiological principles will be new to the VCRI’s and the region.

2.5 Support Local Disease Control Centres
Local (District) Disease Control Centres have been proposed previously, but are not operational. GoT representatives consulted during the mission were sceptical that they could have a role.

3 Vaccination [undertaken by the authorities]
Vaccination campaigns are carried out in spring (March-April) and autumn (September-October). The project’s Veterinary Task Forces will assist the Provincial Directorates with planning these campaigns.

The recent participatory study found that vaccination currently reaches less than 50% of the target bovine population (Berhanu Admassu, personal communication). In the project, it is desirable to test options on vaccine delivery and compare results in different Districts in the project target area. For example, a subsidy on vaccine cost to farmers could be provided in some areas, but not others. Or the use of “community vaccinators” (villager community members who have received short training and then work under the authority of the veterinarian with responsibility for vaccination in the village) could be trialled. However, there appears to be reluctance on the part of GoT representatives met to try these new approaches. Reasons given include:
- If a subsidy is given in part of the project area, there will be problems with neighbouring areas that do not receive the subsidy.
- There is no provision in the current legislation for community vaccinators.
- There is a surfeit of trained manpower (vets and vet technicians).

Unless the recalcitrance to try new vaccine delivery methods is overcome, the project has limited options for testing innovative vaccine delivery modalities.

4 Consultation and communication

4.1 Develop communications strategy
The strategy will be developed together with a consultant Participatory Communications Specialist (see TOR in appendix) who will also be responsible for improving the communication skills of the veterinarians.

4.2 Convene meetings
To make the project successful, it is important to have the support of local leaders, in particular the muhtar, kaymakam and Province Governor. Meetings will be organised at which these leaders are present, together with representatives of the Veterinary Authorities and the police, who are responsible for livestock movement control. These meetings will take place in each Province. Members of the Task Force teams will develop relations and maintain frequent contact with key muhtars and kaymakams.

4.3 Set up “hotline” for outbreak reporting
The idea of a dedicated phone line for anonymous reporting is not considered useful by GoT representatives consulted. However, it is recommended that this is reassessed in project inception. For example, reporting might be encouraged if there is a phone-line coupled with a scheme in which a payment is made to anyone reporting a case that is followed up and proven to be FMD.

4.4 Subcontract media specialist
The media specialist will be charged with producing leaflets or whatever other media formats are appropriate for disseminating messages to raise awareness.

4.5 Organise workshops
Early in the project, there should be a launch workshop in each VCRI region. Key local figures (the muhtar, kaymakam, Province Governor, police inspectors, traders, and so on) will be invited. Workshops may be useful to brief Government and Private Veterinarians who are carrying out vaccination. There should also be workshops at which the findings of the mid-term review and evaluation are presented.

5 Training
5.1 English language training
Most staff members at the VCRI have low English language ability. English language training is necessary if project epidemiologists are to properly benefit from a short course in epidemiology plus study tour in Europe. It will also facilitate communication with and reporting to FAO as well as understanding of international, for example European Union, FMD documentation.

5.2 Epidemiology training and study tour
For the Study Tour, it is proposed that a centre of excellence in Europe for epidemiology (for example, the Free University of Berlin or the Veterinary Epidemiology and Economics Research Unit at the University of Reading) be contracted to provide a short, intensive course in basic epidemiology. The Study Tour should include a visit to a Veterinary Epidemiology Unit and should enable the participants to understand how disease investigation is carried out in Western Europe.

6 Mid-term review and evaluation
The mid-term review will provide preliminary recommendations on how to deliver FMD vaccination more effectively in the region, with potential application in a far wider area. The review will also provide an opportunity to assess progress and realign this as required in implementation of the remainder of the project.

The final evaluation will assess the impact of the project, and compare the assessment of indicators at the end of the project with the results from both the planned base-line sero-survey and the participatory epidemiology assessment that was completed prior to the start of the project.