Food and Agriculture Organization of the United Nations

Office of Evaluation

Project GTFS/INT/907/ITA "Controlling Transboundary Animal Diseases in Central Asian Countries"

Final Evaluation Report

February 2012
Final

Food and Agriculture Organization of the United Nations

Office of Evaluation (OED)

This report is available in electronic format at: http://www.fao.org/evaluation

For further information, please contact:

Director, OED
Viale delle Terme di Caracalla 1, 00153
Rome, Italy
Email: evaluation@fao.org

Foreword

Some projects are short-term, others are so long-term, that you can hardly call them projects with a clear beginning or end but become programmes. The project under evaluation is an example of such a project that has become so long-term as is seldom seen anymore nowadays. What it set out to do is still not achieved: a completely different way than countries were used to of dealing with TADs. It is a special project, better called a programme, in which countries were assisted to gain the freedom from rinderpest status and to tackle other TADs, particularly FMD and PPR. The project also assisted countries to solve other problems related to animal diseases: the rapid response the project could provide when H5N1 hit the areas is but one example of the beneficial effects of this project for the participating countries. It is due to these aspects of the project that we prefer not to call it a "project", which usually is formulated in such a way that there is a clear beginning and end, but a programme. If it had limited itself to the freedom from Rinderpest (RP) support actions there would have been a clearly defined end of the project: the declaration of freedom of RP. The way it is formulated it has become an on-going programme to support, create understanding for TADs and linking people concerned in the control of TADs in the region up with one another.

The programme was initially formulated with Afghanistan as the "kingpin" of all activities, with the neighbouring countries as necessary inclusions to achieve the objectives of reducing the incidence of TADs and especially RP in Afghanistan. Where the initial idea was to include Kazakhstan, Kyrgyzstan and Iran as logical part of the same epidemiological zone for a number of diseases this had to be changed for budgetary reasons and so Iran, Kyrgyzstan and Kazakhstan obtained an observer status, but became through additional projects and changing programme activities more prominent in the later phases of the programme. It is difficult to define what the exit for this programme should/could be other than a successor programme or projects. It is clear that in many of the countries involved TADs seem to be nearly of equal political as of veterinary and economic importance. This shows that there is still a long way to go until the control will be solidly based on science and risk assessment, management and communication.

It was obvious that one of the most successful aspects of the project has been to bring the various people responsible for the control of TADs together and meet one another, even if it were to see that approaches to the various TADs in the various countries are different. This, together with all the logistical difficulties of letters of invitation, visa and travelling between these countries (e.g. detour through China to travel from Dushanbe to Islamabad) has made it a challenging programme, which deserves to be looked into carefully to plan for the future support to the control of TADs in the region.

Acknowledgements

This evaluation would not have been possible without the careful planning by Mr Umberto Ciniglio, the operations clerk in Rome, who organized all the logistics of flights, letters of invitation and visa applications. In close liaison with the project leader – Dr Giancarlo Ferrari- he collected all background information and together they gave the evaluation mission a thorough briefing and send-off.

The national coordinators and their administrative assistants took over to take care of logistics and transport when in country from the Rome team in a very capable way. All visits' organisational and logistical aspects went smoothly. We are grateful for their support to this mission.

A special word of thanks goes to all the government veterinary staff, who took time to meet with us and explain about their perception of this programme. Also the various representatives of NGOs, farmers' organisations and farmers contributed towards our better understanding of the programme, its achievements, and pain points and helped us to formulate recommendations. The best reality check was when we were brought to a farm somewhere with "live FMD": it brought the realities in the field and the need for control of TADs to the forefront. The farmer knew exactly that this "small outbreak" would cost him around PRps 100.000.

On behalf of the team,

Almaty, December 2011,

Anton van Engelen
Evaluation team leader

Composition of the Evaluation Team

Evaluation team[1]

Anton van Engelen - team leader, livestock specialist
Andrea Massarelli - evaluation consultant, veterinarian

FAO Office of Evaluation

Enrique Lora (OED): Evaluation Manager

[1] See annex 2 for their short profiles.

Table of Contents

Acronyms

AGAH	FAO Animal Health Service
AHDP	Animal Health Development Project
CBPP	Contagious Bovine Pleuro-Pneumonia
CCPP	Contagious Caprine Pleuro-Pneumonia
CIS	Community of Independent States
CVO	Chief Veterinary Officer
DTRA	Defense Threat Reduction Agency (USA)
ELISA	Enzyme-Linked Immunosorbent assay
EMPRES	Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases (FAO)
EU	European Union
EU-FMD	The EU Commission for the Prevention and Control of for Foot and Mouth Disease (FAO/AGAH)
FAO	Food and Agriculture Organization of the United Nations-
FMD	Foot and Mouth Disease
GDP	Gross Domestic Product
GREP	Global Rinderpest Eradication Programme (FAO)
GOST	"Gosudarstvennyie Standart", the USSR standards system
GTFS	Global Trust Fund for Food Security (FAO)
HPAI	Highly Pathogenic Avian Influenza
HS	Haemorragic Septicemia
LIMS	Laboratory Information Management System
MOU	Memorandum of Understanding
NGO	Non Governmental Organization
NSP	Non-Structural Proteins
OED	FAO Office of Evaluation
OFFLU	OIE/FAO Network of Expertise on Animal Influenza
OIE	World Organisation for Animal Health
PCP	Progressive Control Pathway (FAO/OIE)
PCR	Polymerase Chain Reaction
PPE	Personal Protection Equipment
PPR	Peste de Petits Ruminants
PRps	Pakistan Rupies
PVS	Performance of Veterinary Services (OIE)
RP	Rinderpest
SOP	Standard Operational Procedure
SPS	Sanitary and Phytosanitary Standards
TAD	Transboundary Animal Disease
TCP	Technical Cooperation Programme (FAO)
ToC	Table of Contents
TS	Tajikistani Somoni
USA	United States of America
USD	United States Dollar
USDA	United States Department of Agriculture
USSR	Union of Socialist Soviet Republics
WB	World Bank

WHO	World Health Organization

Executive Summary

Information about the evaluation

ES1. The Evaluation of the "Controlling Transboundary Animal Diseases in Central Asian Countries" project (GTFS/INT/907/ITA) became necessary according to FAO procedures when its accumulative budget with the 3rd phase surpassed USD 5 million. The aim was to do this evaluation with a forward-looking perspective so as to come with recommendations for future projects as a continuation of this one.

ES2. The Evaluation assesses FAO's performance during the period August 2004 when the project leader took up his position till November 2011, the time of this evaluation. The project assisted Turkmenistan, Uzbekistan, Pakistan, Afghanistan and Tajikistan as the main beneficiaries; Kyrgyzstan, Kazakhstan and IR Iran had an observer status and were present in most regional meetings and workshops. The mission managed to visit during the actual evaluation FAO head office, Tajikistan, Pakistan and Afghanistan. Team leader had visited Uzbekistan not long before this evaluation and he had a chance to check some of the information and talk with some stakeholders.

ES3. The team developed a methodology based on reviewing project documentation and reports, interviews with key stakeholders of the project, site visits and interviews with government officials. The experience of the evaluation team leader in the region was at times used to put certain findings in a wider perspective and make links to the situation in the not visited observer countries Kazakhstan and Kyrgyzstan. The scope and purpose of the evaluation are given in the TOR (see annex 1) and formed the guideline for the development of the evaluation and this report.

Key findings

ES4. In general the project did what it was meant to do as per its logical framework (see annex 10). In phase 1 of the project, which was mainly geared towards obtaining the freedom from Rinderpest status, there was good collaboration of all government departments in the 5 participating countries to reach this status and it was fully successful.

ES5. In phase 2 and 3 the differences between the various countries became more evident: as already experienced in phase 1 it was more difficult to achieve the level of collaboration and ownership of the activities and results developed in Uzbekistan, Turkmenistan and Tajikistan than in Afghanistan and Pakistan. In the last 2 countries the attitude towards TADs was a more open one and research into and communication about the prevalence of the TADs studied was possible.

ES6. The programme continued with the same logical framework for the period this programme has been running. It would have been better to do more formal/external mid-term evaluations at the end of each phase and modify the log frame; it would very well have been better to develop differential logframes for Pakistan and Afghanistan on the one hand and the three former Soviet Republics on the other hand as the point of departure and the overall character and structure of the veterinary services are quite similar within these two groups however between these two groups vast.

Conclusions

ES7. The project's approach has been highly effective to achieve the stated objectives in Pakistan, effective in Afghanistan, somewhat effective in Tajikistan and with mixed results in Turkmenistan and Uzbekistan. Although individuals were exposed to new ways of thinking and working their influence on the veterinary system's mode of operation is too limited to achieve these changes.

ES8. The project set out to increase the communication between the various veterinary services in the region. This was so far not sufficient to make significant changes in countries' attitudes towards animal health issues. Buy-in from politicians and decision makers in government is of critical importance. Although for technical reasons (in near contact with all the specialized organisations and agencies) it was an advantage to have the programme's leadership and administration in Rome, it could have been better for the animal health political objectives of change to have had the leadership and administration in the region, which would have resulted in a much closer contact between international programme management and the respective national governments. Government seconded specialists are unsuitable messengers for contentious issues.

ES9. Epidemiological information should be used to formulate a least cost highest effectiveness national control strategy, preferably in line with its neighbours' strategies becoming a regional overall strategy. This has in the case of FMD been partly achieved through the adoption of the PCP (FAO/OIE) in all countries; in the case of PPR the outcome of the programme's activities on studying the epidemiology of PPR in the region has been not more than reports on the incidence. It would have increased the impact of the programme if it would have helped the individual countries to formulate a PPR control strategy, using similar principles as the PCP for FMD, so that also for that disease countries would have been clear on what should be done to control this disease in the most effective way.

ES10. The project produced many technical messages, which were usually translated into Russian, but those with political and strategic consequences were not systematically translated in a form understandable for policy and decision makers. Through the improvement of the diagnostic and testing capacity both in the field (participatory epidemiology) and in labs (building the capacity for ELISA and PCR diagnostics), the project contributed to the increased national capacity to meet the international standards set by OIE and FAO (as far as Codex Alimentarius and Laboratories are concerned) for the control of animal diseases, both TADs and zoonoses; unfortunately some of the countries involved are still not ready to apply this capacity to meet these standards, mainly due to lack of understanding of the issues at hand among national policy and decision makers.

ES11. The training and capacity building will only bear fruit if and when there are technical follow up and financial means to use that capacity in the regular work of the veterinary services. In the cases of Pakistan and Afghanistan this is guaranteed through other projects, in Tajikistan partly; in Uzbekistan and Turkmenistan it seems that the training and capacity building will not be used as long as the prevalence of FMD and PPR in the country is not acknowledged. Especially the economic impact of these TADs, even based on assumptions from literature and experience in comparable countries in the case of absence of data on prevalence, incidence or lack of transparency, would have been a language policy makers would have better understood.

ES12. In retrospect a regional project that centred around Afghanistan's animal health developed into one for the whole region, whereby it especially after the first phase was over became clear that we were dealing with two completely different groups of countries, with different language, background of veterinary services and different levels of experience how to use time restricted projects to improve regular on-going activities of a veterinary services. It would probably have been more effective if Pakistan, Afghanistan and observer Iran, possible with Turkey, would have had a programme concentrating on the control and prevention of FMD and PPR, which through the westward stream of livestock form a danger for Europe; the former Soviet Republics in Central Asia, Turkmenistan, Uzbekistan, Tajikistan, and observers Kyrgyzstan and Kazakhstan, would all have benefited more from a programme that would have brought the basic principles of a modern veterinary service and its requirements and obligations towards the international community and one another as members of the OIE under their attention. The current OIE approach for the stepwise improvement of veterinary services through the PVS did not exist at the time and the chosen approach was probably at the time the most appropriate and logical one.

ES13. Collaboration between various organisations, such as FAO, OIE, WHO, WB, EU and others working in the field of veterinary services, whereby vets, health specialists and environmentalists have to increasingly work together to tackle zoonoses, need to be based on open communication and transparency between the different organizations and the government services concerned. Currently it seems that donors and organizations "plug in" their activities, without a national government being able to see what is planned, leave alone decide what it wants and how. Without such coordination and communication between the various donors and programmes there is risk of duplication of effort or even contradicting one another. If a national government/veterinary services is not in the driver's seat and capable to oversee what is needed and what is on offer there is a risk of overlap or not responding to the highest priorities of the country.

Recommendations

Recommendation 1: To FAO Senior Management, on better alignment of short-term emergency department TCP activities with (longer-term) projects/interventions of the technical departments

FAO has a Strategic Framework 2010-2019. Besides that there are outcomes of regional and national workshops for priority setting. It should not be that FAO actions in the livestock sector are be driven by emergency projects: livestock requires a longer-term horizon than emergency projects can provide. Too often the quick actions of emergency projects (e.g. free distribution of drugs and vaccines) interfere with long-term actions to e.g. build a privatized veterinary services. Also in this project there are a few examples how this project either worked well together with a TCP or had to keep distance not to compromise itself technically. For this purpose it would be good for the sub-regional office, together with its representatives in the various countries together with the regional conferences with stakeholders to develop a FAO regional livestock development support strategy within the general Strategic Framework, which sets out the mode of action and the modalities for interaction with existing national policies, as well as other organisations and projects. Emergency projects must then fit within this context.

Recommendation 2: To FAO Senior Management on a more effective way of influencing national policy and strategies in a country

There are two ways how one can influence policy change and better strategies for animal health in a country: by talking to and convincing policy makers with sound arguments and examples from other countries and by example. Most project and programmes try to create in-country the arguments for changes in policy and strategies in animal health practices, but fail to transmit these to the policy makers. It is therefore important that project and programmes such as the one just evaluated receive high-level support of FAO HQ or (sub-) regional offices to lobby for policy changes. Such visits could also potentially strengthen the way that various FAO projects within the same country in the livestock/animal health sector collaborate. At the moment it seems difficult for usually national staff to reach such a level of collaboration.

Recommendation 3: To FAO AGAH technical department for more quantification, timing of interventions in project design and updating the logical framework accordingly

It is increasingly difficult in times of reduced availability of funding for projects and programmes and increasing demand for timely quantifiable programme/project results to justify a programme as this one, where this is not the case. The high flexibility and capacity to adapt to changing needs and conditions will have to be "anchored" in some way into the log-frame and other planning documents through more quantification, timing and milestones. This can be achieved through e.g. an annual update of the logframe, but definitely a critical review and reformulation of the log-frame at the end of a project phase: it "protects" the programme staff from critical remarks, provides more guidance and gives clearer targets. Too much in the current logframe was already obsolete before the first phase was over.

Recommendation 4: To FAO AGAH technical department on more guidance to and cohesion with livestock activities of the emergency department

The emergency department of FAO has steadily increased in size, financial means and in the level it determines the technical image of the FAO in the field. With its increasing number of livestock related projects it is important to keep the general overview and needs of animal production and health in the picture. A FAO country livestock development strategy with an e.g. 5 year time horizon would be a good instrument to force the organisation to think strategically, position itself in the market of projects and show its technical skills and superiority. It will create a platform that will help the organisation to maintain project quality consistent and to the highest professional levels.

Recommendation 5: To FAO AGAH technical department on choice of disease to be used in a capacity building project/programme

Whereas TADs are interesting and important for veterinarians, policy and decision makers in countries would most probably have given priority to the control of zoonoses as the subject for the capacity building in preparedness, response and prevention. If the programme is generic in terms of the disease to tackle it would be a more strategic move to chose for

zoonoses, through which a veterinary services' capacity for surveillance, diagnostics, determining control strategies and implementing them would be developed. It is likely that in the coming years there will come funds available to control zoonoses under a "One Health" paradigm: under this concept veterinarians, health professionals and environmentalists work together to eradicate diseases at the "human-animal-environment" interface. This approach has taken a high flight and is becoming a priority area for the national governments, probably at the expense of controlling TADs. Control of zoonoses makes use of similar diagnostic capacity facilities and human resources as TADs, it requires an even more intricate mode of communication because of more parties involved than TADs and should form an integral part of future animal disease control strategies of veterinary services in the region.

Recommendation 6: To FAO AGAH technical department on economic impact assessment of TADs

The study on the economic impact of FMD in Pakistan, which commenced during phase III, should quantify both direct and indirect costs of an outbreak and calculate what the benefit cost relationship of a control programme would be. This Pakistan experience in economic impact assessment should be translated in a well-described and documented methodology, which can be applied in other countries and with other diseases to calculate the cost of disease, the cost and benefits of disease control.

Recommendation 7: To FAO AGAH technical department on strategic choice of participating countries in a future project

Any future regional programme on animal health has to group countries, which form a logical epidemiological unit, facing similar animal disease problems, having the same veterinary structure, having similar trade links and speaking the same language. In the case of TADs control in Central Asia there would be a programme for the "axis" Pakistan, Afghanistan, Iran, Turkey, which all have veterinary services based on the European system and using English on the one hand and the former Soviet Republic on the other hand. In this way the project objectives can be more specific and relevant for the different groups than they were now and resources can be used more efficiently (e.g. Russian speaking trainers for 5 instead of 3 countries, meetings in Russian, more benefits from translating documents etc.).

Recommendation 8: To FAO AGAH technical department on the right balance between technical, economic, managerial and political aspects of animal disease control and prevention

This programme has put a heavy emphasis on the technical aspects of TAD diagnostics and control, which almost gave it the character of a research programme with capacity building. To make sure that the information gathered will be operationalized any future programmes should have a more balanced approach in which technical, political, managerial and economic aspects are all included within the planning: after determining the prevalence and improved epidemiological information on a disease, be it TAD or zoonosis, an economic impact assessment should contribute the convincing arguments with which a national control strategy can be made acceptable to national government's policy and decision makers and donors for future funding. An approach in which the various aspects are

carefully balanced will increase the overall outcome of a similar future programme. The PCP (FAO/OIE) model can and should be enriched with cost estimates for the various steps and be elaborated into a national disease control (and eradication?) strategy.

Recommendation 9: To National Governments on the role of the FAO in the process of their alignment and compliance with SPS measures

All members and aspiring members of WTO agreed to comply with the SPS measures. The standard for the SPS agreement for terrestrial species is the OIE Terrestrial Animal Health Code. This will require changing one's veterinary services to comply with what this document says in terms of veterinary services and disease control strategies and diagnostic methods. The OIE Performance of Veterinary Services (PVS) assessment, together with the gap analysis (basically trying to estimate what it would cost to bring the veterinary services up to the performance level aspired by a country in 5 years' time) provide powerful management, policy and advocacy tools to change the operations of a veterinary service, the veterinary legislation and search for funding from both national budget and donors to implement the strategic plan as laid down in the gap analysis. When individual countries have reached an OIE standards conform approach and methodology in their TAD and zoonoses control it will be much easier to come to a regional control strategy as everybody speaks the same language, follows the same paradigm and only minor harmonization, fine-tuning of national strategies and development of coordination mechanisms are required for a regional approach to the control of TADs. The FAO should be allowed to play the role of moderator, referent and back stopper in the process of countries' alignment with the international standards and procedures, for which the FAO always works along the OIE standards.

Recommendation 10: To National Governments involved in this project and FAO AGAH technical department on gender mainstreaming in veterinary projects and programmes

Although it looks as if a programme like this has no gender issues they are always there. The direct visible ones are to make provision in future project write ups and budgets for female laboratory staff to be able to accept training through the provision of funds for a male relative to accompany her on training trips or to regional technical meetings. It would be good to let a gender specialist have a look through future project or programme proposals to assess whether there are any possible negative effects on gender relations or negative impact on women. An example is e.g. test and slaughter in brucellosis control, whereby a woman might lose a cow providing her and her family with milk and income: such an animal is irreplaceable on short notice and the compensation offered is never enough to buy a comparable animal back.

Recommendation 11: To international organisations and donors working in the Central Asian Countries

The changes in the national animal health and public veterinary health systems required in the various Central and South Asian countries are profound. Countries would need all the support, be it technical, financial, political and moral, to stay the course. One Health makes increasing demands on the animal health care system's capacity to communicate to and collaborate with human health and environmental services/ministries. It would be important for the international organisations to speak with one voice to national governments and

follow one agenda, which is science based, transparent and accountable to avoid duplication of efforts or even contradictory messages. In this way maximum results can be expected from the various programme and project interventions. It is suggested to align the earlier suggested FAO livestock production and health 5 year development plan into a document acceptable to and accepted by all and to plan and organize all activities in such a way so as to avoid overlap and gaps.

1 Introduction

1.1 Evaluation background

1. The evaluation of Project "Controlling Transboundary Animal Diseases in Central Asian Countries (GTFS/INT/907/ITA) was commissioned by FAO Office of Evaluation (OED) in compliance with FAO policy on evaluation[2], after its budget surpassed USD 4 million due to extension phases. The project had two extensions, on which content was decided in the tripartite meetings. The first phase of the project never had an external evaluation: the project beneficiaries were key in assessing what the first phase had achieved and "formulated" the extension phases.

2. The project set out to assist Afghanistan and its neighbours to develop their capability to control the major transboundary livestock diseases (TADs) that threaten food security through mortality and reduced production. It put major emphasis on the training of field and laboratory staff in recognition and diagnostics of TADs, especially Rinderpest (RP), Foot and Mouth Disease (FMD) and Peste de Petits Ruminants (PPR). It planned to assist countries to develop communication links with one another for improving regional diseases intelligence and cooperation. The project was after its initial planned 3 years' first phase twice extended with a further 2-year period each. The overall purpose and objectives for the project remained the same and use was made of the original project planning logical framework.

3. This evaluation assesses the project's performance during the period 1st of August 2004, when the project leader effectively took up duty (although the official approval for the project was received end of January 2004) through 1st of November 2011. The programme is a regional programme, covering Afghanistan, Pakistan, Uzbekistan, Turkmenistan and Tajikistan with three "observer status" countries (Kazakhstan, Kyrgyzstan, Iran). The evaluation team visited FAO head office in Rome Italy and the project activities in Tajikistan, Pakistan and Afghanistan. The overall picture of this evaluation is based on a combination of the information gathered during the mission and earlier experience in and visits to Tajikistan, Uzbekistan, Kyrgyzstan and Kazakhstan.

2 Evaluation purpose and scope

2.1 Purpose

4. According to the TORs (Annex 1) the purpose of the external evaluation of the Controlling Transboundary Animal Diseases in Central Asian Countries project has been given as

"To provide recommendations to the Government, FAO and donor on the further steps necessary to consolidate progress and ensure achievement of objectives, as well as to extract learned lessons from the intervention. Any further need for external assistance will be identified."

[2] For further reference consult the Charter of the Office of Evaluation and Field Programme Circular FPC 2011/01 at http://www.fao.org/evaluation/oed-about/en/

This purpose is clearly based on the fact that the project draws to an end. Although the initial project had two extensions it is now a good point to make up the balance and see how a possible future project for regional TADs control should look like. The assessment of the project's outputs, outcomes and results against the project rationale and justification and formulated purposes and objectives in the project document will play an important role in formulating these further steps to be taken. Especially with the 2 extensions, which were not really accompanied with project "write-up's" but continued under the same project objectives it is important to assess whether continuing with the same set of project objectives in this case was justifiable or should have been handled in another way.

2.2 Scope

5. In the terms of reference of the evaluation mission the scope is given as follows (the numbers refer to chapter numbers in the following section):

a) Relevance (4.1) of the project to the countries' priorities and needs for TADs prevention, mitigation and control (4.1.1); in particular, the mission should review the proposed long-term vision approach (progressive control) built through the project (4.1.2);
b) Quality, clarity and adequacy of project design (4.2) including;
   - Provisions for programme adjustments and flexible response to opportunities and changing circumstances (4.2.1);
   - Gender (4.2.2);
   - Realism, approach and clarity of capacity building and training approaches (4.2.2);
c) Efficiency (4.3) and adequacy of programme implementation including:
   - Availability of funds and human resources (4.3.2);
   - Managerial and work efficiency (4.3.3);
   - Extent of national support and commitment, and quality and quantity of administrative and technical support by FAO (4.3.4);
   - Effectiveness of capacity building efforts (4.3.5);
d) Sustainability (4.4) prospects of the proposed approach, taking into account:
   - Institutional issues surrounding TADs prevention and control activities (4.4.1);
   - The annual investment required to maintain project activities considering that major investments in non-expandable technical and laboratory equipment have been sustained by the project (4.4.2).
e) Possible effects that the project might have had on national policy reform and programme development, national investment in – and attention for – animal health (4.5).
f) Overall project performance (4.6).

3 Evaluation methodology

3.1 Review of literature and project documents

6. The Project Leader and Operations Clerk made all progress reports, training overviews and financial data available for study and review. Also OED made information available from the corporate systems such as FPMIS. In the countries country-specific documents were made available. In this respect Pakistan must be mentioned, where it is obvious that this programme has set in motion a national process of trying to address the issues of TADs through e.g. economic impact studies, development of proposals for the local manufacture of vaccines etc. A list of document consulted is attached as annex 3. Documents were studied and discussed in depth during the mission with stakeholders in the field.

3.2 Briefing in Rome

7. The team met for 2 days in Rome before starting the field visits. A substantial technical briefing meeting was held with the Project leader and Operations clerk in which already a number of issues of and assumptions about the project were discussed. In a meeting with the Head of AGAH the future of this type of support "projects", with few quantifiable outcomes but potentially a great impact on local veterinary structures, in times where the emphasis among donors and agencies is increasingly on measurable outputs and of decreasing fund availability, was discussed. The coordinator of EU-FMD was visited to discuss the PCP (FAO/OIE) approach and the collaboration between his office/organisation and this project. The team's veterinarian had a phone conversation[3] after returning with the Special Management Unit of the Italian Trust Fund for Food Security and Safety, which has been financing this programme.

3.3 Field visits

8. The evaluation team managed to visit 3 of the 5 participating countries during the evaluation mission. The itinerary of the field mission is reported in annex 5, while a list of people met is in annex 4. During a visit to Uzbekistan in September, the team leader had meetings with some key players in the control of TADs in the country, both national and international and paid a visit to the veterinary laboratory, some livestock markets and met with some up-country veterinary services staff with whom he had interacted before during the One Health study. In Tajikistan the team met with FAO project staff, representatives of other FAO projects, representatives of the veterinary services and the Association of Veterinarians in Tajikistan. In Pakistan the team had a chance to sit in on a training session for laboratory technicians on FMD diagnostics, had elaborate visits to all the laboratories involved in the work, talked with the "successor"[4] project's management, besides with FAO project and government staff: it was remarkable to notice how little difference there actually was between these 3 entities. A field visit to Karachi's dairy colony, where a number of interesting studies have taken place gave a good illustration of the potentially devastating effects TADs like FMD can have on milk production, reproduction and in general farmer's income, not to mention the availability of milk in the country. In Afghanistan the usual security restrictions,

[3] The officer responsible of the Unit, Mr Lucci Chiarissi, was on sick leave

[4] A USDA funded project, towards which formulation the FAO team contributed extensively, continues to support the Pakistan Veterinary Services with their FMD control programme

combined with a Loya Jirga ("big tent meeting"), made it slightly more complicated for the team to operate, but was also a good illustration of the usual difficulties local people have to face in the course of their work activities. The team unfortunately did not have any interaction with Turkmenistan. It would have been useful to know more about the reasons why the project and its activities developed so slowly there and at times not at all so as to assess better the conditions under which a project of this type could have been more successful.
From the "observer status" countries team leader has information on the status of PPR and FMD in Kyrgyzstan and Kazakhstan, neither of the two team members has experience with Iran.

3.4 Team discussion, consensus reaching and mission report writing

9. The different disciplines of the two evaluation team members (animal production specialist and veterinarian) gave at times interesting different view points and the need to reach consensus. Information received from different sources was triangulated and conclusions drawn. The mission report was written with contributions from both team members and edited by team leader and evaluation manager. Comments from the various project staff members were considered and included when deemed relevant and correct within the general context of the evaluation's outcome.

4 Analysis of the programme and its activities

4.1 Relevance

4.1.1 In general

10. The control of TADs is extremely relevant. They cost national economies large sums of money, are a threat to food security and the livelihoods of many rural families and thus it is completely justifiable to design a project geared towards the progressive control of TADs and increased awareness of, capacity in and communication about TADs. There are not really complete economic impact assessments of TADs done as yet, but a recent study on "One Health" gave as the incremental annual production looses for the period 2000-2010 in lost production from Brucellosis as USD 55.1 million and from Echinococcosis as USD 97.6 million as an illustration of the magnitude of losses in fertility and production.5The start of the project in 2004 coincided with the world-wide drive to eradicate Rinderpest (RP), spearheaded by the World Organization for Animal Health (OIE) and FAO, assisted by Regional Bodies where present and operational such as AU-IBAR in Africa. It is therefore logical that RP became the focal point of attention during the first stage of this project. If the general principles of progressive control of a disease are communicated and people trained for this in a "generic way" (i.e. not specifically for one disease) it means that the general disease control capacity in a country can be increased through increased diagnostic capacity, methodological understanding of progressive control programmes, SOPs and disease control strategies.

11. In spite of its duration -7 years so far with two extensions- the justification of the programme remains valid as well as its relevance. It would have probably been wise to review the project when passing from one phase to another through an external independent mid-term evaluation and eventually modify results and outputs according to the changing project paradigm and needs. The project could at that stage have been re-oriented towards a broader approach of general animal health policy and strategy for the control of priority TADs. It has restricted itself to FMD and PPR, for which 2 of the participating countries still deny that it is endemic in their countries, also after 7 years of this project, whereas through the RP control the progressive control mechanism and contingency plans had been introduced.

4.1.2 To the countries' priorities and needs for TADs prevention, mitigation and control

12. In all countries of the programme animals suffer from the same TADs[6], which are spread through trade (mainly Pakistan-Afghanistan- Iran in this direction) and movement/border crossing for grazing. There are old remaining Soviet grazing arrangements between nations, mixed with traditional pasture use practices, back in vogue, not respecting administrative borders. Especially in and around the Fergana valley, where 3 countries meet, and the mountain areas along the borders are areas where mixing of animals from different areas and countries during summer grazing takes extensively place. All countries in the

[5] Central Asia One Health Project (2011): Economic assessment of the impact of zoonotic diseases in Central Asian Region, (CAAP/10/C1/QCBS-02/National Economic Impact Report Kyrgyzstan (RPMU of World Bank funded "One Health Project"

[6] A table showing the diseases reported to the OIE by the five project countries and their neighbours since 2005 is attached as annex 6. Source: OIE website.

programme have a rural population highly dependent upon livestock and prevention, mitigation and control of TADs is therefore highly relevant. Many of the more arid and mountainous areas can only contribute towards the national economy through livestock grazing and the presence of TADs reduces the returns on livestock keeping. There is actually not so much animal traffic between Pakistan-Afghanistan-Iran and the former Soviet States, except for Afghanistan and Turkmenistan, where traditional grazing arrangements exist. The borders with rivers and anti-drugs controls prevent large-scale animal movement. The major problem for the former Soviet Union states is not TADs coming in from the south, but in the organization and capacity of their veterinary services. They left a system with central decision making how diseases would be tackled (unified disease control strategy), central diagnostic capacity and vaccine production, including quality control, to a system whereby this "hub" (Moscow) was removed and all former USSR republics had to come up with their own animal disease control strategies, which were unfortunately incomplete, not up to date with current knowledge and experience and most importantly not harmonized between countries. As the collaboration between veterinary services in the various republics had always been built, guided and maintained by Moscow it has taken time to replace this coordination, if it has been so far. It is also only hesitantly that these countries accept international bodies for animal disease control such as OIE to "look over their shoulder" and function as a standard-setting agency instead of Moscow with the various GOST, former USSR government standards for disease control. The collapse of the Soviet Union has thus resulted in drastic changes in the husbandry and veterinary control systems with a devastating effect on the incidence and prevalence of formerly more or less controlled animal diseases, especially the zoonotic diseases (brucellosis, bovine tuberculosis, Echinococcus, rabies and anthrax) and TADs (FMD, sheep pox and PPR and CCPP[7] as two relatively recent introduction), for which early detection, communication and collaboration with neighbouring states are of great importance in their control, mitigation and eradication.

13. Besides aspects of food security, livelihood and contribution towards the GDP there are some countries within the project coverage that had a traditional livestock-exporting role to especially Russia with specializations such fine wool from Kyrgyzstan and lamb and beef from Kazakhstan, but the markets are now more diversified and e.g. Kyrgyzstan exports beef and lamb to Iran, whereas Kazakhstan has become a net importer of especially beef. For such trade to restart or increase such countries will have to be able to give guarantees about the disease status of animals in their country according to the internationally accepted SPS rules or demand guarantees for imports, for which the OIE's Terrestrial Animal Health Code is the standard. Also for this reason it is important that countries increase their capacity in the control of zoonoses and TADs. This programme has contributed towards this and was therefore relevant.

4.1.3 To the proposed long-term vision approach (progressive control of TADs) built through the programme

14. The programme is in line with the initiatives launched by FAO and other partners (mainly OIE) for the eradication of progressive control of infectious animal diseases. RP was the first disease with a progressive control pathway and is now eradicated worldwide. The programme played in the Central Asian region a facilitating role, not only in the 5 countries

[7] CBPP was officially eradicated in the USSR in 1935.

where lab diagnostic capacity was built up, but also with advice and gentle encouragement in the other countries "observer states" to comply with the requirements to achieve their international recognition of freedom from RP by the OIE.

15. The progressive control of FMD was earmarked by FAO and OIE as a priority and a global strategy for risk management and progressive control has been prepared; similar strategies are in preparation for PPR and rabies. Apart from the prominent role played by the project leader in designing the general PCP approach, this programme contributed to the better understanding of the country's epidemiological situation concerning FMD and PPR in most of the area covered by the project, whereby it should be remarked that certain areas of Afghanistan could not be covered for security reasons and certain areas of Uzbekistan and Turkmenistan for political reasons. It helped with the identification of indicators and steps for the PCP (FAO/OIE) and helped the target countries in adhering to the initiative and placing themselves in the appropriate and most realistic step for the level of epidemiological knowledge on this disease, the actual situation and prevailing conditions in the country.

16. Although not part of this programme the control of zoonoses through a One Health[8] approach, whereby veterinarians, health professionals and environmentalists work together to eradicate diseases at the "human-animal-environment" interface, has taken a high flight and is becoming another priority area for the national governments. It makes use of similar diagnostic capacity facilities and human resources; it also requires an even more intricate mode of communication and forms integral part of future animal disease control strategies of veterinary services in the region. Through the improvement of the diagnostic and testing capacity both in the field (participatory epidemiology) and in labs (building the capacity for ELISA and PCR diagnostics), the project contributed to the improvement of national capacity to meet the international standards set by OIE and FAO (as far as Codex Alimentarius and Laboratories are concerned) for the control of animal diseases, both TADs and zoonoses. Moreover, the project actively contributed to the control and eradication of HPAI outbreaks when these appeared in the target countries from 2006 to 2008 before dedicated HPAI projects had been put in place.

4.2 Design of project

4.2.1 Quality, clarity and adequacy of project design

17. Looking at the assumptions and risks of the logical framework questions come to mind about the logic of the project interventions as means to reach the overall objective of a more effective disease control after termination of the project. The late signing of the project's MOU by some countries gives doubts about the commitment to the project and their later handling of project investigative results only confirm this. The assumption that government infrastructure would be in place and that there would be commitment to share information have both proven not to be always true. In Afghanistan and Tajikistan there was no adequate government veterinary diagnostic laboratory at the onset of the project and alternative arrangements were made (in Afghanistan a small "FAO laboratory", in Tajikistan

[8] A tripartite effort of FAO-OIE-WHO (and UNICEF and UNSIC): see http://www.fao.org/docrep/011/aj137e/aj137e00.htm

making use of the National Institute for FMD) till the veterinary diagnostic laboratories were rehabilitated and equipped. With some of the governments not ready to use the project generated serological data to change their disease control strategy (or start one) shows that for some countries the intervention logic did not lead to the expected project results of an increased food security by reducing livestock production losses caused by infectious diseases. Although their capacity, both technically and in terms of human resources have been strengthened, it contributed only in a limited way to increased food security, if at all.

18. Most of the objectively key verifiable indicators are hard to quantify (e.g. availability of national disease prevalence data within the region, information on the prevalence and impact of PPR, FMD and other major diseases in the five countries) or are hard to attribute to this project, considering that there have been other projects at the same time working on similar issues (e.g. national laboratories undertake ELISA diagnostic testing by skilled staff, which both the HPAI and DTRA projects were aiming for). When the first phase of the project was over with achieving most objectives in that sphere (free from RP status, not the planned contingency fund e.g.) the attention moved to "PPR and FMD and other major diseases" (2.1 in logframe). Too many planned activities some countries did not concur with (e.g. samples to reference laboratories) that the differences in mode of operation and implementation between the countries increased considerably. With the frequent turnover of veterinary staff in the former USSR republics (except in Tajikistan) it is hard to work towards improved understanding by senior national staff of project objectives and activities for the simple reason that often they are not long enough in position to gain this understanding.

19. Initially the idea was to assist Afghanistan in the control of TADs, whereby the neighbouring countries could not be ignored as the countries through which the TADs can enter Afghanistan. Due to the unpredictable security situation in Afghanistan the project management unit was established from the beginning at FAO headquarter in Rome. The unit was composed of a Project Coordinator and an Operation Clerk, recruited respectively in August 2004 and April 2005 through a competitive process. They had to be Italian to meet the conditions of the donor (Italian government). The main paradigm of the initial phase was the control, eradication and achieving "freedom from" status of RP. The decision of keeping the project management unit at the FAO HQ in Rome represented an advantage considering the proximity with technical and administrative offices. Several technical and administrative missions (see annex 7) have been mobilized from FAO HQ during the project life. Moreover, through this proximity arrangement, the project could always be in the picture of networks and working groups such as those for laboratories, epidemiology, the EU FMD, OFFLU and EMPRES itself.

20. At peripheral level, a Regional Coordinator coordinated the project with a background in epidemiology initially based in Pakistan and later in Iran. Local staff –usually a National Project Coordinator/Epidemiologist seconded by the respective Governments, and a Programme Assistant recruited through a competitive process- employed and paid for by the project, manage national components. In Afghanistan the project recruited also a Laboratory Specialist. A list of project personnel recruited during the project life is reported in annex 8. The project was supported by external technical assistance, either regional (recruited directly on the spot by the project) or international (recruited centrally by the project through the different FAO recruiting services or made available by FAO headquarter).

21. It remains an interesting question whether after the first milestone was achieved (freedom of RP) at the end of phase I the programme management should not have sat down and reconsider the project design and workings. At this stage it was clear that some countries had a far more open minded approach towards TAD control and communication than others and probably at that stage the programme could or should have been split in those where the awareness of the importance of sero-surveillance communication and information supply was understood and those who still had to adapt to the international OIE disease control standards and adopt these practices. This was not done as it would have required once again going through the approval and signing of the new formulation. The experience how long it took for phase 1 was a good indicator how long it would have taken the second time around. The programme wanted to make countries communicate with one another, whereas some do up to now still not communicate with their own staff in the provinces, let alone comply with the reporting obligations to the OIE about their disease status.

4.2.2 Contribution towards FAO's core functions

a	Monitoring and assessment of long-term and medium-term trends and perspectives
b	Assembly and provision of information, knowledge and statistics
c	Development of international instruments, norms and standards
d	Policy and strategy options and advice
e	Technical support to promote technology transfer and build capacity
f	Advocacy and communication
g	Inter-disciplinarity and innovation
h	Partnerships and alliances

22. In the above table the key FAO core functions are listed. It is interesting to see to what extent in the design of the project these core functions have been addressed. In a) the FAO plays a worldwide role in monitoring the incidence of TADs and to assist countries in developing congruent strategies to control these diseases. This programme did exactly this in the case of RP and to a lesser extent for FMD and PPR. The FAO collects disease data, analyses and publishes information. In the case of this programme a field manual for the recognition of PPR, a relatively new disease that is easily confused with other common diseases with respiratory signs. Core function b was addressed through regional meetings that were held and in which countries shared the results of their sero-surveillance work. Serological data regarding all five countries where brought to an International conference held in Saint Malo (France) in May 2010. A programme website with all key documents and programme results would have been a good addition to the regional conferences for b), especially in a situation where most of the participating countries don't want "their" data and disease status public: a protected programme website with login can be in future a next step towards increased transparency.

23. With the development in collaboration with EU-FMD of the PCP (FAO/OIE), this project contributed towards core function c. At national policy and strategy level, due to the use of seconded national experts, it has been more difficult to contribute towards changes in policy and strategies: in most of the former USSR republics talking about TADs or zoonoses is still shrouded in secrecy and someone from within can hardly risk his position to do this. To contribute towards d) policy and strategy options and advice the level to interact with lies even above the CVO. These issues are discussed at the level of the Minister of Agriculture and Council of Ministers. The technical support to promote technology transfer has been mainly given at the level of use of ELISA and PCR; in many cases these technologies are

implemented in laboratories, where there are no adequate LIMS or SOPs present. Pakistan and Iran are exceptions in this aspect; all the others need assistance in the basics of running a veterinary laboratory in a modern way: this must be part of the already extensive training programme for capacity building. It is important to develop the right procedures for sampling, randomizing and analyzing: all to be covered by SOPs. Advocacy and Communication (f) depends upon language: it is a slow process for English to replace Russian as lingua franca in the Central Asian States and therefore it is good that both OIE and FAO increasingly translate documents into Russian, but more in this field is needed to create more effective advocacy and communication.

24. The project's partnership with some of the countries' governments is better than with others, in the cases where the partnership of government and FAO is relatively recent there is gradual improvement in the project's partnership with the government, but slower than desirable to meet the project's objectives of transparency and communication. There are a number of organisations, which are involved in the countries this programme is active in the veterinary field. Whereas all these organisations depart from similar principles and standards (OIE, WHO, Codex Alimentarius) they are all confronted with similar "resistance"/unease in the former USRR countries to adopt these principles and standards. It is only a concerted effort of all that might be able to lead to a change in the general paradigm of veterinary services, away from a normative juggernatu into one based on risk assessment, management and communication. Collaboration between FAO, OIE, WHO, WB, EU and others in this field would be one way to introduce novel ways of operating veterinary services, whereby vets and health specialists work together to tackle zoonoses, in which there is open communication of disease status etc. Such a concerted effort might also in future lead to more coordination and communication between the various donors. One example is the DTRA programme in Uzbekistan, Kazakhstan and Kyrgyzstan, which works also on increased diagnostic capacity, upgrading of laboratories and faces most probably a certain amount of distrust and resentment: if at level of donors and international organisations a more transparent plan on who does what and why can be achieved that would benefit the overall development and improvement of veterinary services in countries: it is difficult to tell countries that they should be more open towards one another and communicate data and information if the international organisations cannot give the example.

4.2.3 Gender

25. On first sight one might think that gender has nothing to do with the control of TADs and veterinary services. This is not true and although there might in the design not be more need for gender mainstreaming than making sure that e.g. female laboratory staff from Pakistan, Afghanistan, Iran and Tajikistan can travel to training sessions with a male relative. In veterinary programmes the gender issues are present all over. When planning participatory epidemiology the women are crucial to be consulted, in some countries this can only be done by females. Often sick animals are the domain of women: these animals are left at home and women take care of them. Also the control strategy can have profound effects on women and their responsibility to feed the family: test and slaughter in brucellosis control or culling in the case of FMD outbreaks takes away the dairy cow(s) of the family, directly affecting family nutrition and income. It is therefore good to always have a gender specialist have a look at proposals and materials to see whether what is proposed or presented is gender balanced and neutral.

4.2.4 Programme adjustments and flexible response to opportunities and changing circumstances

26. In its lifetime the programme evolved from a "for all the same" when working towards the freedom of RP into different levels of activities: Pakistan went as far as specialised research in different vaccines for HS and economic impact assessment of FMD. In Afghanistan the security situation made that e.g. sero-surveillances could not be random over the whole country. Following the occurrence of HPAI in the region in 2006 (outbreaks in Afghanistan, Pakistan, Kazakhstan and Iran) the project management asked for an extra budget allocation of USD 105,000 to provide laboratory equipment to complete the poultry laboratory in Afghanistan. The equipment was then handed over to the central veterinary laboratory once this was completed, and is still in use in those premises. The changes to the original project's approach have been possible only thanks to the flexibility of the design of the project itself and to the commitment of the project staff and the donor. Being able to respond to pertinent issues in a country's battle with TAD's (e.g. the sudden outbreaks of HPAI or Pakistan's problems with HS vaccination, Tajikistan's first occurrence of CCPP), other than FMD and PPR has most probably deepened the veterinary services' understanding of TADs and their control in general, responded to an immediate felt need and thus have most probably been quite helpful in achieving the project's objectives. In the absence of quantifiable and objectively verifiable key indicators for these interventions it is hard to measure.

27. The governments of Turkmenistan and Uzbekistan's reluctant attitude towards modern methods of risk assessment, management and communication made that the programme management took a more waiting attitude to see whether this attitude would change; without actively lobbying people on the ground in the countries this did not take place and therefore the project achievements in Turkmenistan are extremely limited and in Uzbekistan limited. In Pakistan, where the programme started working at the time that there were already a number of other projects to work on the basic aspects of disease control, a demand-based approach was followed, which resulted in the already mentioned longitudinal studies of FMD in the dairy colonies and lately the economic impact of FMD. A successor programme, especially working on FMD has already started in Pakistan, so that there will be a smooth transition from support from the one programme to support from the next programme.

28. Afghanistan and Tajikistan are the two countries with an open and pro-active attitude towards better understanding the prevalence of TADs in their country, where various projects and organisations have contributed towards this. The project carried out additional sampling exercises to understand the prevalence of other animal diseases and zoonoses, not necessarily TADs. In spite of their pilot, sporadic and isolated nature, not as yet earmarked in a solid and well structured animal health strategy, the serology disclosed interesting positivity for various diseases, especially Q Fever and Brucellosis. It gave both Afghanistan and Tajikistan a better picture of the actual animal health status in their county.

4.2.5 Training approaches

29. Training has played an important role in this programme. A list of trainings held is attached as annex 9. Besides the project staff and the national epidemiologists there were training programmes for selected laboratory specialists from the various countries. Specialists from Afghanistan and Pakistan went to Italy for a specialized training. After the training these specialists went to the other countries to train the specialists there. Each national

coordinator/epidemiologist organized in-country training of the staff of the various veterinary departments. Specialists from Tajikistan as well travelled to Italy in May 2011 where they had spent 3 weeks in an FMD reference laboratory and where laboratory specialist received a refresher laboratory bench training. During the training sessions samples collected in Tajikistan were tested in the hosting laboratory. SOPs of the tests utilized and SOPs on general maintenance of ELISA equipment had been delivered to the participants and brought back in their own country.

30. The programme did not do a training needs assessment. Except the veterinary laboratory diagnostic capacity there was and still is great need to understand the principles of modern veterinary services: away from normative approaches, but based on risk assessment, management and communication. Although the OIE has conducted many trainings in its regular annual programme these are usually attended by selected high officials of the veterinary services, who often don't stay long in the system. The planned application of TADinfo did not happen, so also the regional collation of data on FMD and PPR based on data from TADinfo could not take place. The project had data from recurrent sero-surveillances for NSP in the case of FMD and antibodies against PPR. Planned training for disease reporting for field staff did not take place as most countries have their own system for this reporting.

Training materials consisted of PPE (Personal Protection Equipment), disease recognition manual for PPR, posters for both PPR and FMD and emergency planning and contingency manuals. The project document mentioned materials on investigation methods, TADinfo demo CD's and distance learning modules could not be found. A complication with training materials is the need to have these materials both in English and Russian.

4.3 Efficiency and adequacy

4.3.1 Availability of funds and human resources

31. The Italian Government funded the project for an initial period of 3 years, extended twice with a budgetary increase, up to a total of 7 years. The following tables summarize the global and country components' budgetary allocation during the 3 phases.

Global Budget Allocation per Phase

	DURATION				
PHASE	**From**	**To**	**SEMESTERS***	**BUDGET**	**INCREASE**
I	01/08/2004	31/12/2007	I to VI	2,842,125	
Add I	01/10/2007	31/12/2007	VII	2,947,125	105,000
II	01/01/2008	31/12/2009	VIII to XI	4,947,125	2,000,000
III	01/01/2010	31/07/2012	XII to XVII	6,747,125	1,800,000

* SEMESTERS

	DURATION	
N.	**From**	**To**
I	Mar-04	Aug-04
II	Sep-04	Feb-05
III	Mar-05	Aug-05
IV	Sep-05	Feb-06
V	Mar-06	Aug-06
VI	Sep-06	Feb-07
VII	Mar-07	Aug-07
VIII	Sep-07	Feb-08
IX	Mar-08	Aug-08
X	Sep-08	Feb-09
XI	Mar-09	Aug-09
XII	Sep-09	Feb-10
XIII	Mar-10	Aug-10
XIV	Sep-10	Feb-11
XV	Mar-11	Aug-11
XVI	Sep-11	Feb-12
XVII	Mar-12	Jul-12

Source: Evaluation team based on information provided by the project

	Budget per Country							
	AFGHANISTAN	PAKISTAN	TAJIKISTAN	UZBEKISTAN	TURKMENISTAN	FAO HQs	REG. COOR.	PROJECT TOTAL
Account								
Salaries Professional	$0	$0	$0	$0	$0	$985,136	$0	$985,136
Salaries General Service	$106,503	$106,503	$0	$0	$0	$502,075	$0	$715,081
Consultants	$295,042	$129,670	$157,232	$180,383	$158,008	$14,090	$293,663	$1,228,088
Contracts (LoAs)*	$1,400	$0	$0	$0	$0	$177,335	$0	$178,735
Locally Contracted Labour	$25,255	$25,255	$25,255	$25,258	$0	$0	$0	$101,023
Travel**	$208,006	$83,300	$44,905	$37,903	$26,879	$1,090,170	$10,024	$1,501,187
Training	$35,932	$35,932	$35,932	$35,932	$35,934	$0	$0	$179,662
Expendable Procurement	$121,246	$121,246	$121,247	$121,247	$121,246	$0	$0	$606,232
Non Expendable Procurement	$50,339	$50,339	$50,339	$50,339	$50,339	$0	$0	$251,695
Support Costs	$77,014	$77,014	$77,014	$77,015	$77,015	$77,015	$0	$462,087
General Operating Expenses (GOE)	$99,111	$99,102	$99,100	$99,100	$99,100	$0	$0	$495,513
GOE ext. common services	$0	$0	$0	$0	$0	$5,484	$0	$5,484
GOE int. common services	$0	$0	$0	$0	$0	$37,201	$0	$37,201
TOTAL	***$1,019,848***	***$728,361***	***$611,024***	***$627,177***	***$568,521***	***$2,888,506***	***$303,687***	***$6,747,124***
TOTAL in %	15%	11%	9%	9%	8%	43%	5%	100%

* The LoAs account has been funded directly by the FAO HQs budget

** The Travel in the FAO HQ column includes regional and international workshops organized by the Project (20)

Source: FAO Trust Fund Status Report/Aggregate Values as at 08/12/2011

	Expenditures per Budget Group			
	Total	Expenditures	% of budget group	% of project total
Account				
Salaries Professional	$985,136	$938,580	95.27%	13.91%
Salaries General Service	$715,081	$660,227	92.33%	9.79%
Consultants	$1,228,088	$1,239,091	100.90%	18.36%
Contracts (LoAs)	$178,735	$185,890	104.00%	2.76%
Locally Contracted Labour	$101,023	$97,140	96.16%	1.44%
Total personnel costs	***$3,208,063***	***$3,120,928***	***97.28%***	***46.26%***
Travel	$1,501,187	$1,449,062	96.53%	21.48%
Training	$179,662	$173,097	96.35%	2.57%
Total travels & trainings	***$1,680,849***	***$1,622,159***	***96.51%***	***24.04%***
Expendable Procurement	$606,232	$612,083	100.97%	9.07%
Non Expendable Procurement	$251,695	$238,372	94.71%	3.53%
Total Procurement	***$857,927***	***$850,455***	***99.13%***	***12.60%***
Support Costs	$462,087	$397,497	86.02%	5.89%
General Operating Expenses (GOE)	$495,513	$483,767	97.63%	7.17%
GOE ext. common services	$5,484	$5,667	103.34%	0.08%
GOE int. common services	$37,201	$12,201	32.80%	0.18%
Total Administrative Costs	***$1,000,285***	***$899,132***	***89.89%***	***13.33%***
TOTAL	**$6,747,124**	**$6,492,674**		**96.23%**
Source: FAO Trust Fund Status Report/Aggregate Values as at 03/11/2011				

32. Procurement to the tune of USD 385.250 for non-expendable equipment and USD 380.400 for expendable equipment was foreseen during the project implementation This consisted mainly of Information Technology equipment, office supplies, laboratory equipment, reagent/diagnostic kits, consumables and materials, sampling equipment and 5 vehicles. Procurement has been centralized, with most probably the advantage of launching bigger tenders obtaining the best quality goods for the lowest price compared to what each national component would have done, considering that most are land-locked, without representatives or agents for the often highly specialized equipment and not guaranteed exemption of paying taxes. The adoption of UN procedure for supply of goods is usually less cumbersome and faster than National Governments' ones, which are at times limited to 2 times per year, which would have created long delays.

33. Management of funds was planned to be centralized in Rome, reason why an Operation Clerk with deep knowledge of financial management and administration was recruited. Based on the overall budget and countries' needs, a quarterly financial plan was drafted in agreement and consultation with the national components. Funds were released to national FAO representations' accounts based on the activities planned for the quarter. A ceiling variable according to the country was established for direct payments by cheques (e.g. TS 1,000 for Tajikistan) prior request from the National Project Coordinator and the Administrative Assistant, approval from the FAO Finance Officer and endorsement of the FAO Resident Representative.

34. The above financial management and implementation arrangements encompassed a series of advantages, such as:

- The administrative cost corresponded to FAO for the financial management of the project was reduced from 13% to 6% due to the recruitment of a full time Operation Clerk;
- Quarterly planning based on actual activities in line with the overall project plan, allowed a high degree of accurateness in funds management;
- At the same time, quarterly planning left room for adjustment of activities and flexibility of intervention in case of unforeseeable events (e.g. outbreaks of HPAI);

- Reliable control of expenditures due to the disbursement procedure followed and multi-level approval at peripheral level;
- Maximization –and support- to existing FAO structures in the target countries;

35. Few disadvantages have been however disclosed:

- Relationship with FAO Representatives and Emergency Coordinator did not have formal arrangements concerning supervision of project staff and monitoring of project activities.
- The project was requested to establish its country office in the Veterinary services. In the case of Tajikistan this was not workable, the office was shifted to the FAO national representation premises, and a rent to the FAO National Office was agreed upon. When the external funding of the country programme reduced the office rent was suddenly increased to non market conform levels to assist in paying for the overall office rent;
- Funds not managed on a dedicated account, which could make expenditure tracking more difficult.

36. The project worked with seconded staff from government as national coordinators/epidemiologists with a topping up. The administrative assistants and drivers were locally recruited. The national coordinators over the years have learned considerably how to manage projects, but also how TADs can be controlled. It is not likely that at project ending they will go back to their positions within the veterinary services, unless there is another project that can offer better working conditions than the prevailing ones in the government veterinary services. All professionals involved with the project at different stages are mentioned in annex 8.

37. In terms of human resources a remark should be made on the location of the project leader in Rome and the regional coordinator/epidemiologist first in Pakistan and later in Iran. Although having the project leader in Rome had a positive effect on proximity to specialists and specialist bodies (EU-FMD to give an example) it increased the overhead costs for travelling and reduced the projects impact on the managerial and political aspects of TADs control as there was less frequent contact by project leader with the policy makers and the veterinary services' managers. The regional coordinator/epidemiologist often travelled together with the project leader and it has not become clear to the team whether his TOR was relevant for the success of the project: it seems that a regional communication officer, working on data exchange, developing platforms for this and printed (training) materials could have contributed more. It is again as with the logical framework of this project a fairly open-ended TOR, which requires a committed person in the job and close supervision, which were both the case. In future it is probably more appropriate instead of giving such a person a sort of line function in the overall management between project leader and national coordinators/epidemiologists with their work a clear staff function for e.g. communication or training.

4.3.2 Managerial and work efficiency

38. The project document contained a logical framework (see annex 10), in which the goal and objectives remained unchanged for the whole duration of the project. The specific work plan was reviewed and adapted to the changing situation when the project was extended. This was possible, because the overall logframe did not change and the same work plan could be used. Based on this work plan, quarterly activity plans were agreed between the

project management unit and each national project coordination and published in the bi-annual reports for monitoring purposes. Even if concise and schematic, the progress reports give a clear idea on the activities planned, the activities executed in general and per country, the inputs provided in term of personnel, goods and training/workshops, and an analysis of problems encountered and solutions found. A planning for the forthcoming period and a list of reports produced during the period completed the progress reports.

39. The project monitoring system was built upon the original logical framework, drafted in 2004 and never officially updated or modified. Indeed the project management did not deemed necessary to update the logframe, as the first immediate objective was attained in 2007 following the self-declaration or the official recognition of freedom from rinderpest in all countries of the region (completed in 2010), while the other 3 immediate objectives still remained valid. It would have probably been wise to review the objectives when the project was extended, in order to reflect the changed situation and the new spirit of the project, aimed at improving regional coordination for the control of FMD and strengthening surveillance systems, while reinforcing the policy and strategy drafting and implementation capacity of each country.

40. Indicators of achievement have not been officially reviewed and updated. Moreover their formulation is not time-bound or quantifiable, even though they look appropriate and measurable. In retrospect it is clear that the one logframe for such completely different countries has been probably a bit too optimistic: although e.g. the programme did produce data on the prevalence of PPR and FMD in all countries some did not want to acknowledge this, leave alone report to the OIE. So though the data were there the country did not achieve what the programme envisaged.

41. , Representatives of the donor's office at FAO and the General Directorate for Development Cooperation of the Ministry of Foreign Affairs carried out an internal evaluation visit to target countries twice during the project life, before the Tripartite Meetings, in which the extensions were agreed upon. Project management decided for this type of extension and not a formulation of a new phase considering the troubles and delays obtaining every country's signature at the start-up of the project. In this light it is understandable that the log frame was not changed and that the log-frame prepared for a 3 years' period was used during the 7 years.

42. The project struggled to introduce coordination and harmonization habits through regular meetings involving the 5 project countries, enlarged to their closest neighbors, as well as the co-funding and organization of 3 regional meetings on FMD PCP (FAO/OIE) (see annex 11, Meetings and workshops held). These meetings became increasingly regional FMD control meetings and were important for the OIE-FAO joint effort to create awareness and control strategies for FMD control in the region. This is another point where the programme's connections with the countries have been useful to bring people together to discuss these important issues, which without regional collaboration cannot be tackled. All 5 countries are now included into the West Eurasia regional roadmap of 14 countries for FMD control. There is still a lot of work required to achieve coordination of control activities among different countries (i.e. vaccination programmes and timing, type and quality of vaccine, exchange of information), each country continues with its own PCP, some have been even downgraded from step 1 to 0 as the criteria were made more demanding as they are not prepared to do sero-surveillance to build up a better understanding of the actual FMD (and

PPR) situation in the country. In the remaining project time the project hopes to help countries to design their target control activities to move a step up from the current status.

43. All national FAO projects with a livestock component liaise with the FAO's coordination groups through the FAO resident representative or livestock officers, where existing. Even if relationships between the project and the FAO office and team are ruled by a quite clear *modus operandi*, personal attitudes and behavior sometimes risk to jeopardize the smooth implementation of a project, especially where important development and emergency actions exist. This is to some extent the case in Afghanistan, in particular by the emergency actions carried out by FAO on brucellosis through other specific projects, which are not linked or coordinated with those supported and desired by the Government. The GTFS programme's approach, based on long-term commitment to disease control through capacity building and on the spot screening to determine the exact epidemiology of a disease, would have avoided such problems. It seems that it has been not possible to convince others within the national FAO programmes' team of the importance of such an approach.

4.3.3 Extent of national support and commitment,

44. Two levels of national support and commitment can be distinguished: to the overall project idea and goal and to the physical requirements of the project. All countries signed a MOU in which they made office space available and seconded national staff to the programme; it seems that both Uzbekistan and Turkmenistan except for the RP part had problems to support and commit the other objectives of the programme and there was in these countries little to no support from the Government to increase the understanding in the region of the level of prevalence and impact of PPR and FMD, nor to improve the regional information exchange on the prevalence of FMD and PPR. The project document was immediately endorsed by Pakistan and Afghanistan, a bit later by Tajikistan, and after about 18 months and various follow up missions by Uzbekistan and Turkmenistan. This delay in endorsing the project document is probably symptomatic of the limited ownership these countries have shown on the project, and will most probably have a negative impact on the sustainability of the project activities after the project ends in these countries.

45. No major problems of technical and above all financial sustainability during the first phase of the project, as rinderpest was considered a public issue and its eradication was part of a global programme carried out worldwide. Countries were therefore very committed and allocated human and –to a lesser extent financial resources to rinderpest eradication activities. During phase II and III the financial commitment was reduced while the human resources allocated to epidemiologic surveillance, disease reporting and control was less than in the case of rinderpest. Current budget allocation for veterinary services in each beneficiary country is only sufficient to cover salaries and recurrent costs of the animal health directorate.

46. It was always the intention to mainstream the "project" laboratory activities with the National Veterinary Diagnostic Laboratories if they weren't from the beginning and expected that national governments would include the costs of these sero-surveillances and laboratory activities in their veterinary budgets. As earlier said most of the veterinary budgets are for staff salaries and extremely little remains for the actual work. It seems that none of the countries made provisions to pay for such activities from the national budget, all of them relied and rely on other projects to pick up the bill. The handing over of equipment went smoothly in all cases, although there was some resistance in what had become known as "the

FAO vet lab" in Afghanistan to hand over project goods to the national veterinary diagnostic laboratory, just rehabilitated by the EU AHDP project. The project leader had to make sure that the FMD laboratory unit established in Kabul with project money was integrated to the newly created National Veterinary Laboratory. The hand-over of similar units in Tajikistan is still pending, in Uzbekistan is already in a room of the Republican Veterinary Laboratory and in Pakistan was always part of the national laboratory.

4.3.4 Quality and quantity of administrative and technical support by FAO

47. The monitoring system relied on continuous follow up of activities by the project management unit at both central and regional level, through frequent missions in the target countries, reports and direct contact through Skype. A list of missions carried out during the project implementation is reported in annex 7. A project steering committee was not foreseen in the project document. The function of steering committee have been fulfilled by "Tripartite Meetings" at the beginning of each phase as far as general orientation of the project is concerned, and by regular technical meetings -four "CVOs Regional Meetings" from 2005 to 2008 and three "Project Technical Meetings" from 2008 to 2010- as far as technical matters are concerned (see annex 11).

4.4 Effectiveness

4.4.1 In general

48. During the first half of phase I the project delivered all goods foreseen in the planning document, basically vehicles, sampling materials, laboratory equipment and consumables. National coordinators were responsible to handle the goods as well as sampling results to their respective Governments. This was all done without major problems[9].

49. National Governments recognized at different rates that the project was useful to help them in getting the official recognition of freedom from RP, understanding better the dynamics of major TADs, establish a progressive FMD control pathway which could be adapted to any other animal disease and finally create a stronger capacity in epidemiological surveillance, laboratory diagnosis and disease prevention. Innovative concepts for the region such as randomized surveillance, participatory disease search and of progressive disease control strategies have been introduced by the project and internalized by beneficiary countries at different pace.

50. These efforts created a better collaboration environment, with creation of individual contacts and sharing of information on a personal basis. This is still far from being an optimal, open and transparent communication but represents a dramatic improvement in regional scientific and technical integration.

4.4.2 Of Freedom from RP

51. Initially what then still was a project was designed for answering to a specific need, i.e. the official recognition of the final eradication of Rinderpest from Central Asia, with

[9] An specific review of the project's outputs and activities is presented in Annex 14.

special focus on Afghanistan and Pakistan, in line with the international standards set by OIE, agreed with FAO and national Governments and operated through GREP – Global Rinderpest Control Programme. The neighbouring countries of Afghanistan received active assistance with the required random sampling and testing; the 3 observer states were given assistance in complying with all the administrative requirements of request writing to the OIE etc.
Outputs related to objective 1 have been fully achieved, as all countries have been recognized free from RP. The worldwide implementation of the GREP initiative facilitated the process. Countries have now to carry out only passive surveillance on pathognomonic signs of RP to keep their free status valid. To achieve this output it was necessary to strengthen the epidemiological surveillance services and the capacity of laboratories in the diagnosis and confirmation of RP and other TADs. The project organized specific trainings (see annex 9) for the recognition of this TAD, basic and advanced epidemiology, laboratory testing (ELISA, PCR) and specific participatory diseases search activities (see annex 12), which is equally applicable to other TADs. As said elsewhere in this report it is most likely that for the former Soviet Republics achieving the freedom from RP was most probably the most important reason to agree to the project.

4.4.3 Of creating a better understanding of the impact of PPR and FMD

52. At this stage of implementation, prevalence and geographic coverage of FMD and PPR are better known, ranging from a detailed knowledge of distribution in the whole of Pakistan and 16 provinces out 34 in Afghanistan, but much less detailed in Tajikistan and even less in Uzbekistan and Turkmenistan. Unfortunately the last two will not admit for political reasons (fear for bans on export as one of the reasons) to the fact that the presence of NSP and PPR antibodies mean that the viruses of these diseases are endemic in their countries.

53. During the second and third phases the project focused on the 3 remaining objectives, and in particular objective 2, "to better understand the impact of PPR, FMD and other major livestock diseases in the countries". The project focused especially on FMD, for which a clear pathway for its progressive control (PCP) was agreed upon, which became part of a worldwide control scheme developed by FAO in 2008/2009 (EMPRES and EuFMD) and then endorsed by the OIE and adopted worldwide. The project played a major role in understanding where Central Asian countries stand in terms of PPR and FMD and in planning and carrying out all necessary activities to progress to next levels of control. The distribution and prevalence of FMD are now better understood in most of the countries and their provinces, except those, which are not accessible or unsafe, i.e. Southern Afghanistan and Northwestern Pakistan. Thanks to the PCP (FAO/OIE) approach, each country can decide upon a strategy framework to follow for the control of FMD. Unfortunately some countries have still not got used to open communication about FMD and PPR. An economic impact assessment of these diseases, in which the direct effect on animal production, but also the trade related costs would have been part, could be a powerful instrument to convince governments that an active control strategy of these diseases pays off in the long run. The programme has only recently started with such a study for FMD in Pakistan and then mainly geared towards lost milk production, whereas there are other direct effects such as abortions, calf mortality, extended intercalving periods. The programme has mainly focused on the effect of FMD in large ruminants, whereas small ruminants play an important role in the epidemiology and spread of the disease, with less visible negative effects except some lamb and kid mortality (myocarditis) than in large ruminants.

54. In the geographic region, FMD is reported as endemic in Afghanistan, Pakistan and Iran, while it is reported as sporadic in Kazakhstan (2007, 2010, 2011), Tajikistan (2011) and Kyrgyzstan (2006, 2007, 2008, 2011). Uzbekistan, and Turkmenistan never reported FMD outbreaks to the OIE. There are doubts on the transparency of reporting FMD outbreaks in former CIS countries, probably due to the repercussions it can have on trade with neighboring countries, Russia in particular. The project carried out studies on the identification of FMD viruses in Pakistan and Afghanistan (see list of studies at annex 13) through which it was possible to determine the genetic identity of virus isolated during the study with viruses A Iran 2005 isolated in Iran and Turkey, as well as the isolation of a new topotype, not yet named. A study on the economic impact of FMD in Pakistan was commenced during phase III, aimed at quantifying direct losses in milk production due to recurrent outbreaks of FMD in high cattle/buffalo density areas. It would be important to translate this Pakistan experience in economic impact assessment again in a well described and documented methodology, which can be applied in the other countries to calculate the cost of a TAD, the cost of control but also the benefits of control.

55. The control pathway adopted for FMD can also be applied to other infectious diseases, such as PPR. Understanding of the prevalence of PPR is ongoing in all countries. First results show that the disease is present and represent a concrete economic threat to small ruminants' breeders and keepers. PPR is reported every year in Pakistan and Afghanistan, while it was reported in Tajikistan from 2007 to 2009, after the beginning of the project. The project carried out specific studies in Tajikistan on the "Duration of Immunity and Protective Efficacy of PPR vaccine" and "Isolation and Identification of PPR virus". Pakistan is seriously considering adapting the PCP approach to PPR, in order to have a strategic reference framework. Only Pakistan, Afghanistan and Tajikistan have reported the presence of PPR. Kyrgyzstan, Kazakhstan, Uzbekistan and Turkmenistan have not, but the upsurge in incidence of pasteurellosis and reported "ineffectiveness" of the vaccine in protecting goat kids and lambs, together with serological data of the programme collected in Uzbekistan and Turkmenistan are strong indications that PPR is present in these countries.

56. Hemorrhagic Septicemia is the last TAD considered actively in the Pakistan programme. Studies on the "Immunogenicity and protective efficacy of live HS vaccine in cattle and buffaloes" and a "Comparison of aerosol and oil adjuvant HS vaccines" were commissioned. The results of the studies are helpful to the establishment of a vaccination strategy in the dairy colonies. The disease is recurrently reported in Afghanistan, Pakistan, Iran and Tajikistan (2005, 2006) and the results of the studies in Pakistan will be useful for the other countries where this disease occurs.

57. The project is still working to help countries in better tune their livestock and animal health policies and to influence the adoption of structured strategies on diseases control, regionally harmonized. A clear example of the success of such approach is the progressive control pathway (PCP (FAO/OIE)) for FMD, which represents a regional harmonized strategy, part of a wider scheme, setting clear and quantifiable targets for progressing along a scientifically based control pathway. This winning approach can be transposed to other infectious diseases, such as PPR. In this context also the OIE executed PVS and gap analysis, which were picked up again by the recent One Health studies in Tajikistan, Uzbekistan, Kyrgyzstan and Kazakhstan, have to feed into a "Good Veterinary Service" component of a next phase of the project. The RP part is now finished, for FMD there is now the PCP and a similar approach for PPR under discussion. Hopefully specific increased understanding of the prevalence of FMD and PPR will make it in a possible next phase of this project politically

acceptable in the former Soviet Republics to openly discuss control strategies for these diseases, currently not even officially acknowledged as being present. Although the Pakistani veterinary services are far more prepared to share information and work less normative but increasingly along lines of risk analysis, management and communication, the Pakistani veterinary services has not as yet gone through the PVS exercise.

4.4.4 Of the establishment of communication between the countries for collaborative disease control

58. Share of information and communication among the 5 target countries have been improved, but still remain insufficient and partial as there is no adequate transparency especially from former CIS countries to develop a thorough understanding of the epidemiology of these TADs in the region and come to effective regional control strategies. The project organized regular meetings and workshops (see annex 11) to bring all countries of the region, including Kazakhstan, Kyrgyzstan and Iran as observer states, together to exchange information and harmonize disease control and prevention activities. Some preliminary results have been achieved but there is still a long way to go until there will be regional joint TAD control strategies. A 2009 Regional Brucellosis Conference for Central Asia, organized by FAO in Dushanbe, could also only conclude that each country had its own control strategy, which were not in line with one another and at times contradictory (e.g. Kyrgyzstan started to vaccinate sheep and goats with REV-1, Kazakhstan resorted to test and slaughter: any vaccinated animal exported from Kyrgyzstan to Kazakhstan would if tested most probably be slaughtered because of a titer).

59. All countries in the programme are members of OIE, which gives them a series of obligations in terms of communication and reporting. Most of the countries involved are only partially complying with these requirements. Whereas regional communication is important and could e.g. have been strengthened with a programme website in English and Russian with controlled access at the end of the day one must aim at achieving compliance with the OIE reporting requirements.

60. Management and dissemination of information produced by the programme happened in a quite empiric and "person/institution based" way. A specific website or webpage dedicated to the project or project newsletters would have increased the visibility of the project greatly, but were not used. A certain degree of information sharing was achieved during tripartite meetings and, to a greater extent, during the technical workshops. However, partial or total retention of information from former CIS countries jeopardizes the increased understanding of the epidemiology of and the regional harmonization process in the control of the major TADs.

61. Some problems have been experienced with the circulation of data and information within the line Ministry and with the sharing of data with other projects. In Uzbekistan the USA Department of Defense financed Biological Threat Reduction refurbished 5 oblast laboratories, also trained national laboratory technicians, but the GTFS project and this Threat Reduction project have not been able to at least exchange information about planned activities on investments and training to avoid redundancy or look for possible synergy. Other examples are Afghanistan and to a lesser extent Pakistan, where communication between the National Coordination and the animal health projects funded by the EU have not always been smooth and comprehensive, especially between national staff members of these projects. It has been necessary for the international staff to intervene and promote a higher degree of

coordination of interventions and exchange of information. We can now say that the situation improved greatly and the project is recognized as a catalyst of activities especially in the control of FMD through the adoption of the PCP (FAO/OIE) and the control of PPR.

4.4.5 Of capacity building

62. The project aimed at establishing national disease investigation, control and contingency planning for TADs and the establishment or improvement of disease control and contingency plans for disease emergencies, whereby we will limit ourselves here to RP, PPR and FMD.

63. In terms of establishment of national disease investigation, control and contingency planning for TADs, the project was successful as far as rinderpest and FMD are concerned, thanks to the eradication programme under GREP and the joint OIE/FAO PCP for FMD. Little has been done for PPR except some sero-surveillance; the investigation, control and contingency planning for other TADs not directly targeted by the project have hopefully benefited from the increased diagnostic skills and capacity, brought about by the projects. In Uzbekistan and Turkmenistan the developed capacity is most probably going to be underutilized. It is highly unlikely that any national specialist there will be able to start a sero-surveillance programme no matter which TAD, even if the budget were available, without a project to protect him/her from repercussions from political side. There seem to be a relatively high turnover of laboratory staff (5 years mentioned as maximum in most countries). This, together with the fact that such sero-surveillances are not mainstreamed in the regular veterinary work plan (in the former Soviet Republics all activities are determined in the annual plan, which is used for reporting and measuring at the end of the year the performance, irrespective of how many disease outbreaks, sick people from zoonoses, food safety problems etc.) would mean that in a few years the capacity built by the project would be lost to lack of practice and people moving on to other jobs.

64. The built up laboratory capacity can be used for more than FMD and PPR detection and should be made more widely known and available for other diseases and projects. Only when the analysis work continues will the lab skills and routines be maintained.

4.5 Impact of the project on national animal health policy reform, programme development and national investment in animal health

65. Although the overall objective of the project was to increase food security by reducing livestock production losses there is no evidence that the project has made any direct contribution towards this in Turkmenistan and Uzbekistan. In all countries RP had been absent already for years, so no additional benefits to be gotten there. There will have been some reduced mortality through PPR in Tajikistan and Pakistan due to vaccination campaigns, which will have benefited from the increased understanding of the PPR epidemiology. These vaccination campaigns were not part of this project so the project's impact here was indirect. For FMD there was no direct impact on food security as none of the countries involved changed their current FMD control strategy due to the outcomes of the project other than adopting the PCP concept as the general control strategy framework.

66. The programme has had a positive impact on the animal health sector in Pakistan and Afghanistan: in these countries policies have become more receptive for issues related to animal health and these countries are looking into the possibilities to invest in more vaccine production,

either with own money or donor funds. Its animal health workers have benefited highly of the information and training offered, the experience has been internalized and the programme activities have contributed towards another way of thinking about and working in animal health in the country.

67. In Tajikistan the programme has contributed towards an increased transparency and information sharing on the disease status in the country, although there is a sort of "split" in the veterinary services in those involved with the FAO funded and implemented projects and those workers in animal health not exposed to the new ideas, methodologies and skills. It will need careful future support and assistance to maintain what the programme has achieved. An important remaining issue is the transfer of the laboratory testing capacity from the FMD institute to the now rehabilitated republican veterinary diagnostic laboratory, which seems to be in the pipeline.

68. Although in Turkmenistan and Uzbekistan the programme will certainly have had an impact on the individuals involved in the trainings and regional meetings, the programme has not managed to change the general ideas in the country on how to control TADs and old-time methods, based on central decision taking and normative approaches continue to rule supreme. It will in general need a concerted effort in the former Soviet Republics to change the ideas and after that the policies and strategies towards control of animal diseases to a way more in line with the current structure of the livestock sector in these countries, the capacity of the government and the international standards and best practices. This programme on its own with too few contact moments with the policy makers concerned has not been able to achieve this singlehandedly. The hope is that there will be other projects/programmes that will continue in the same track, making use of the people who individually have understood that there are other ways to tackle animal health issues. The upcoming regional "One Health" programme might be one of those, the on-going PVS and GAP analyses performed by OIE are other instruments, which can be used in a concerted effort from all organisations and donors to bring about the required change to in a more effective and transparent way deal with animal and people's health issues, because the effect of this attitude towards animal health has its effect on both veterinary and public veterinary health issues.

4.6 Sustainability of proposed approach

4.6.1 Institutional issues surrounding TADs prevention and control activities

69. Part of the sustainability is to align activities of a project with ongoing projects and existing structures. This in a way will make it easier for a specific project to phase in and phase out without severe disruption to the work to be done and tasks to be fulfilled when a project leaves. This GTFS programme in most cases managed to achieve this: close relationship with government veterinary services and with other projects executed under government responsibility when present. Through this good collaboration and harmonization of activities it avoided duplication and overlapping of efforts and guarantees to a degree that activities started by the programme can continue.

70. In Turkmenistan, the project was the first external initiative in the livestock sector. Due to a complete absence of understanding how the international veterinary system operates nowadays the project could collaborate with the Turkmen veterinary services, but could not create change in the ideas and attitudes of higher authorities towards veterinary issues. It is most probably that the first milestone, declaration of freedom from RP, was the main driver

for this country to participate in the project. The programme extensions, geared towards increased understanding of PPR and FMD's epidemiology, did not have the hoped effect and in the case of Turkmenistan the conclusion must be that this work came too early to be effective in terms of becoming part of the national practices in TADs prevention and control activities and thus a sustainable contribution towards disease control.

71. In Uzbekistan, another country that never reported FMD and has its own FMD control strategy of maintaining a vaccination buffer zone along its borders with its neighbours, has to some extent taken note of the programme's approach towards control of TADs such as FMD and PPR, but in a situation where a country does not want to investigate its status for these TADs it is difficult to adopt a strategy of risk assessment, management and especially communication and so also in this country it is doubtful whether the programme's investments, training and exposure will lead to a different approach towards FMD and PPR in the near future, through which the project's investment would have led to sustainable change in the animal disease control system.

72. In Tajikistan a certain degree of transparency on TAD control has been achieved with the help of a number of FAO financed projects, of which the programme under evaluation is one. FMD was recently reported to OIE for the first time, as well as PPR and CCPP a few years ago: the only country of the former Central Asian states to take this step. The GTFS programme has worked together with some other FAO TCPs in the control of brucellosis in small ruminants and the diagnostics and control of PPR and has, due to its long timespan, become a sort of "umbrella" between these TCPs and HPAI in Central Asia. It is now working together with a TCP on the development of a strategy for the control of small ruminants' respiratory diseases, including PPR and CCPP. Although there still seems to exist some confusion on which laboratory will do the testing (initially equipment placed in the FMD Institute) this is most probably going to be solved soon after the completion of the rehabilitation of the National Veterinary Diagnostics Laboratory.

73. In Pakistan the project coordinated first with the EU funded "Strengthening of Livestock Services Project" and then paved the way for a new FMD control project funded by USDA, which takes over from the GTFS project in the progress along the FMD PCP. The project is fully integrated in the regular veterinary services' activities and sustainability of the TAD control activities is guaranteed. Vaccination against PPR is openly discussed and in some states already being practiced, other states are even exploring the possibility to start local vaccine production. The proposals seem to still lack a financial and economic chapter and the programme could help the departments involved with more economic information on PPR.

74. In Afghanistan, the programme coordinates closely with the government's veterinary services, with the EU funded "Animal Health Project" and liaises with other initiatives related to livestock in the emergency and regular sector. The National project coordinator was part of the Ministry's sponsored NGO livestock coordination team. In this network of collaborating livestock projects and activities, coordinated by the Ministerial NGO liaison office the results of the programme's activities have been discussed in the past. With an increasing tendency to share and collaborate (e.g. the once separately operating FAO laboratory has now been fully amalgamated with the National Veterinary Diagnostic Laboratory) the results obtained can be actively used to determine the most effective and economic way of TADs control.

75. The project gave all technical tools and knowledge required for FMD and PPR control to beneficiary countries, as well as a financial support for sero-sampling, testing and specific diseases investigations. Once the project is over, countries have to cope with maintenance of existing equipment and devices, as well as routine costs for surveillance activities. To date, all countries rely on external support for the implementation of animal health related activities. Pakistan and Afghanistan have ongoing projects dealing with animal health, which can assure a partial (but still unbalanced) coverage of veterinary costs. Other countries will dramatically reduce their capacity to cope with diagnosis and control of TADs after July 2012, unless further external aid is mobilized. Catching new funds would be easier if their approach towards the control of TADs would have changed and become more efficient and in line with international standards.

76. All national FAO projects with a livestock component liaise with the FAO's coordination groups through the FAO resident representative or livestock officers, where existing. Even if relationships between the project and the FAO office and team are ruled by a quite clear *modus operandi*, personal attitudes and behavior sometimes risk to jeopardize the smooth implementation of a project, especially where important development and emergency actions exist. This is to some extent the case in Afghanistan, in particular by the emergency actions carried out by FAO on brucellosis through other specific projects, which are not linked or coordinated with those supported and desired by the Government. The GTFS programme's approach, based on long-term commitment to disease control through capacity building and on the spot screening to determine the exact epidemiology of a disease, would have avoided such problems. It seems that it has been not possible to convince others within the national FAO programmes' team of the importance of such an approach.

77. As in most countries, technical officers are very aware of the importance of animal health care and disease control, but don't have enough arguments and tools to influence the public opinion and convince decision makers on the need to fund such activities. The project should in a next phase make more efforts to provide national veterinary services with adequate arguments to demonstrate in a quantifiable way the benefit of serious prevention and control measures on animal diseases, including zoonoses, compared to the cost of emergency measures after an outbreak occurs. This could have been achieved through an earlier starting of studies on the economic impact assessment of animal diseases on farmers and the national economy.

78. The project was driven by the needs of participating countries, as expressed during the CVOs' meetings and confirmed/assessed during the tripartite meetings. The scientific results of studies and investigations carried out during the project helped greatly in achieving the status of countries free from rinderpest, knowing better the spatial distribution and prevalence of TADs in the region, identifying new FMD virus strains and test the efficacy of vaccines for PPR and HS in farm and laboratory conditions. These valuable results have been shared among regional partners and with the international scientific communities. Project countries should now have the technical knowledge and capacity to go on with serious control programmes for any TAD considered as priority disease in their territory, if and when the respective governments will give this control priority and make funds available.

79. The approach chosen can guarantee a certain degree of sustainability in both Pakistan and Afghanistan, where there is a strong local ownership of the activities implemented and results achieved. These are freely shared and used in policy and strategy

making. It is realistic to assume that the equipment and training provided will be used not only for FMD and PPR, but also for the control of other diseases. In the former USSR Republics old habits die slowly: although the project did expose a large number of people in the veterinary services to different ways of thinking and working the old Soviet normative approach towards the work (don't do anything that is not in the year plan) still largely exist. The chosen approach has not led to permanent changes to such an extent that it can be called sustainable.

4.6.2 The annual investment required to maintain project activities

80. Considering that major investments in non-expandable technical and laboratory equipment have already been sustained by the project it will be interesting to see whether countries would be able to cover the recurrent cost required to maintain a similar level of sero-surveillance as the programme initiated and possibly expand to include other TADs and/or zoonoses. As there was no provision for co-financing of the recurrent expenditures countries have not been encouraged to make provisions for these costs and it is therefore unlikely that there will be made budget funds available for routine sero-surveillance in any of the countries.

81. While Afghanistan and Pakistan "internalized" and committed themselves to the project from the very beginning, the other three countries were not equally committed. Indeed, according to FAO procedures, a regional project can start even if only one or two of the countries involved have signed the project agreement. This is the case of the GFTS project. It took about 18 months and several missions on the spot to get signatures from the three former CIS countries. Afghanistan and Pakistan have secured the continuity of the activities started through attracting other projects to engage in the control of TADs. Tajikistan has partly achieved this with the small ruminants respiratory diseases TCP, but would need to increase its budget allocation drastically to maintain the level of activities after the programme funding stops. As the priority of Tajikistan's government lies on control of zoonoses (especially anthrax and Brucella melitensis, the only animal diseases for which almost 100% of the required vaccine is made available by government, whereas for other diseases this is not more than maximum 10-20% of requirement,) it is unlikely that it will any time soon start larger scale vaccination against FMD and PPR without a project to support this. In the case of Uzbekistan the government strategy of animal disease control is still biased towards financing control in the "formal" sector (state farms and privatized state farms), whereas there is little to no support for the household smallholders, like in most former Soviet Republics in Central Asia. There is need for a drastic reconsidering of the current animal disease control strategies before it will be effective: one cannot ignore the sector where in most cases between 70 to 90% of the animal inventory of a country is being kept. Therefore in these countries drastic changes in the policy and strategies are required before effective control of TADs will be feasible. This programme has shown to a certain extent the reality on the ground, but in most cases it has not been taken on board by the policy makers to reconsider their policies and strategies.

4.7 Overall project performance

82. The programme did what it set out to do in the case of RP and a "freedom from" status was reached in all countries. In the other objectives various levels of achievement can be seen. Although the initial design was for 3 years and for that period was already planned what now has been done in 7 years, it is only fair to mention that in the assumptions of the initial logframe was already written "the expectation is that only some countries will reach

this point (of appropriately qualified staff, sufficient knowledge of livestock distribution to permit survey design, cooperation of field veterinary staff and livestock owners and adequate laboratory capacity) during the project period. It means that from the start of the project the project team contemplated that some countries would not reach the required status and level of understanding. If this was already clear from the beginning it might have been better not to aim at the same activities in all countries but have had a more tailor-made approach per country or group of countries.

5 Conclusions and recommendations

5.1 Conclusions

83. The programme had a clear measurable objective in phase I (working towards freedom of RP), which was achieved within that phase. It was most probably the main reason why Turkmenistan and Uzbekistan agreed to participate in this programme; the other objectives of the project were not universally accepted by all participating countries to the programme and after phase I the activities in the various countries diverted a little bit in different directions.

84. It would probably have been wise to review the project when passing from one phase to another through an external independent mid-term evaluation and eventually modify results and outputs according to the changing project paradigm and needs. The project could at that stage have been re-oriented towards a more broader approach of general animal health policy and strategy for the control of priority TADs, not only restricting one self to FMD and PPR, for which 2 of the participating countries still deny that it is endemic in their countries, also after 7 years of this project.

85. The staff training in disease investigation and participatory epidemiology methods were all conducted, but only had a positive outcome in the countries that were truly interested in investigating in a transparent way the prevalence of the TADs in the country. For RP this capacity and skills acquired through the training programmes were used fully; for FMD and PPR it was only partly used, as there still needs to come a political acceptance that all countries have these TADs. The training in these countries only to a limited extent led to a wider understanding of the prevalence of FMD and PPR in Central and South Asia.

86. The programme worked with the same Logical Framework, which was drawn up for a 3-year project during the 7 years. It has become thus a little time bound and not easily quantifiable document, which can be used for monitoring or even evaluation. In the extensive list of assumptions and risks all the reasons for non- or partial compliance with what was planned are already given. It is clear that 'GTFS/INT/907/ITA' is not covering a traditional project subject, with a clear beginning and ending, precisely defined activities and results to achieve, but more a programme to render support to regional veterinary services to adapt their mode of operation in the control of TADs. Some countries were prepared to do so, others were not.

87. In the light of the above remark it can thus be concluded that this approach has been highly effective in Pakistan, effective in Afghanistan, somehow effective in Tajikistan and with mixed results in Turkmenistan and Uzbekistan. Although individuals were exposed to new ways of thinking and working their influence on the veterinary system's mode of operation is too limited to achieve these changes.

88. In a situation in which even within country it is difficult for some countries to share e.g. prevalence of zoonoses information with the medical sector for joint action it might be a step too far to assume that such countries would share information at a regional or even international level through reporting to the OIE. The project has invested in bringing

representatives into contact with one another and with representatives and specialists of international organisations, but its impact has been limited. There was not introduced dedicated software for national animal health databases and many of the participating countries have a backlog in reporting in the WAHID system.

89. Communication with and between veterinarians has proven to be not sufficient to make significant changes in countries' attitudes towards animal health issues. The project did not seem to have an answer to this other than to continue in the same way. Buy-in from politicians and decision makers in government is of critical importance. Although for technical reasons (in near contact with all the specialized organisations and agencies) it was an advantage to have the programme's leadership and administration in Rome, it could have been better for the animal health political objectives of change to have had the leadership and administration in the region, which would have resulted in a much closer contact between international programme management and the respective national governments. Government seconded specialists are unsuitable messengers for contentious issues.

90. Whereas in some of the countries in the programme the technical data could not be communicated these data could have been translated into economic impact figures, which would most probably have been a more powerful tool to initiate changes in policy and strategies. The programme was mainly concerned about sero-surveillance and improved diagnostics so that the prevalence of TADs could be better determined. The next step, to utilize such information to formulate the least cost highest effectiveness national control strategy, preferably in line with its neighbours' strategies becoming a regional overall strategy has in the case of FMD been partly made through the adoption of the PCP (FAO/OIE); in the case of PPR the outcome of the programme's activities on studying the epidemiology of PPR in the region has been not more than reports on the incidence. It would have increased the impact of the programme if it would have helped the individual countries to formulate a PPR control strategy, using similar principles as the PCP for FMD, so that also for that disease countries would have been clear on what should be done to control this disease in the most effective way.

91. Communication in this type of regional programmes is of paramount importance: the right messages have to be transmitted to the right people, formulated in the right and understandable language. The project has produced many technical messages, which were usually translated into Russian, but those with political and strategic consequences were not systematically translated in a form understandable for policy and decision makers. Through the improvement of the diagnostic and testing capacity both in the field (participatory epidemiology) and in labs (building the capacity for ELISA and PRC diagnostics), the project contributed to the increased national capacity to meet the international standards set by OIE and FAO (as far as Codex Alimentarius and Laboratories are concerned) for the control of animal diseases, both TADs and zoonoses; unfortunately some of the countries are still not ready to apply this capacity to meet these standards.

92. The training and capacity building will only bear fruit if and when there are technical follow up and financial means to use that capacity in the regular work of the veterinary services. In the cases of Pakistan and Afghanistan this is guaranteed through other projects, in Tajikistan partly; in Uzbekistan and Turkmenistan it seems that the training and capacity building will not be used as long as the prevalence of FMD and PPR in the country have to remain hidden from the outside world. Especially the economic impact of these TADs would have been a language policy makers would have understood. Activities in this area of the

impact have started late in the programme and only in Pakistan to have an impact on the policy makers, which could have lead to a change in their attitude towards financing animal health services through the national budget.

93. In retrospect it seems that a regional project that centred around Afghanistan's animal health developed into one for the whole region, whereby it especially after the first phase was over became clear that we were dealing with two completely different groups of countries, with different language, background of veterinary services and different levels of experience how to use time restricted projects to improve regular on-going activities of a veterinary services. It would probably have been more effective if Pakistan, Afghanistan and observer Iran, possible with Turkey, would have had a programme concentrating on the control and prevention of FMD and PPR, which through the westward stream of livestock form a danger for Europe; the former Soviet Republics in Central Asia, Turkmenistan, Uzbekistan, Tajikistan, and observers Kyrgyzstan and Kazakhstan, would all have benefited more from a programme that would have brought the basic principles of a modern veterinary service and its requirements and obligations towards the international community and one another as members of the OIE under their attention. Whereas the first group would most probably due to the already advanced level of understanding and diagnostic capacity have been able to work through a "remote control" project approach, the second group would have needed a concerted effort from various collaborating organisations and agencies with a much closer and frequent contact than was the case in this programme. The upcoming WB funded "One Health" initiatives in some of these countries, together with the on-going OIE PVS and gap analyses, in collaboration with WHO programmes for the human side of zoonosis control and treatment, could maybe muster sufficient critical mass to initiate change at government level, through which the veterinary services can be reformed away from normative politicized entities into professional risk analysis, management and communication based organisations.

94. Collaboration between various organisations, such as FAO, OIE, WHO, WB, EU and others working in the field of veterinary services, whereby vets, health specialists and environmentalists have to increasingly work together to tackle zoonoses, need to be based on open communication and transparency between the different organiations and the government services concerned. Currently it seems that donors and organisations "plug in" their activities, without a national government being able to see what is planned, leave alone decide what it wants and how. Without such coordination and communication between the various donors and programmes there is risk of duplication of effort or even contradicting one another. One example is the DTRA programme in Uzbekistan, Kazakhstan and Kyrgyzstan, which works also on increased diagnostic capacity, upgrading of laboratories. Due to the character of its financer (USA Ministry of Defense) it is not readily forthcoming with information. If a national government/veterinary services is not in the driver's seat and capable to oversee what is needed and what is on offer there is a risk of overlap or not responding to the highest priorities of the country.

5.2 Recommendations

Recommendation 1: To FAO Senior Management, on better alignment of short-term emergency department TCP activities with (longer-term) projects/interventions of the technical departments

FAO has a Strategic Framework 2010-2019. Besides that there are outcomes of regional and national workshops for priority setting. It should not be that FAO actions in the livestock sector are driven by emergency projects: livestock requires a longer term horizon than emergency projects can provide. Too often the quick actions of emergency projects (e.g. free distribution of drugs and vaccines) interfere with long-term actions to e.g. build a privatized veterinary services. Also in this project there are a few examples how this project either worked well together with a TCP or had to keep distance not to compromise itself technically. For this purpose it would be good for the sub-regional office, together with its representatives in the various countries together with the regional conferences with stakeholders to develop a FAO regional livestock development support strategy within the general Strategic Framework, which sets out the mode of action and the modalities for interaction with existing national policies, as well as other organisations and projects. Emergency projects must fit within this context.

Recommendation 2: To FAO Senior Management on a more effective way of influencing national policy and strategies in a country

There are two ways how one can influence policy change and better strategies for animal health in a country: by talking to and convincing policy makers with sound arguments and examples from other countries and by example. Most project and programmes try to create in-country the arguments for changes in policy and strategies in animal health practices, but fail to transmit these to the policy makers. It is therefore important that project and programmes such as the one just evaluated receive high-level support of FAO HQ or (sub-) regional offices to lobby for policy changes. Such visits could also potentially strengthen the way that various FAO projects within the same country in the livestock/animal health sector collaborate. At the moment it seems difficult for usually national staff to reach such a level of collaboration.

Recommendation 3: To FAO AGAH technical department for more quantification, timing of interventions in project design and updating the logical framework accordingly

It is increasingly difficult in times of reduced availability of funding for projects and programmes and increasing demand for timely quantifiable programme/project results to justify a programme as this one, where this is not the case. The high flexibility and capacity to adapt to changing needs and conditions will have to be "anchored" in some way into the log-frame and other planning documents through more quantification, timing and milestones. This can be achieved through e.g. an annual update of the logframe, but definitely a critical review and reformulation of the log-frame at the end of a project phase: it "protects" the programme staff from critical remarks, provides more guidance and gives clearer targets. Too much in the current logframe was already obsolete before the first phase was over.

Recommendation 4: To FAO AGAH technical department on more guidance to and cohesion with livestock activities of the emergency department

The emergency department of FAO has steadily increased in size, financial means and in the level it determines the technical image of the FAO in the field. With its increasing number of livestock related projects it is important to keep the general overview and needs of animal production and health in the picture. A FAO country livestock development strategy with an e.g. 5 year time horizon would be a good instrument to force the organisation to think strategically, position itself in the market of projects and show its technical skills and superiority. It will create a platform that will help the organisation to maintain project quality consistent and to the highest professional levels.

Recommendation 5: To FAO AGAH technical department on choice of disease to be used in a capacity building project/programme

Whereas TADs are interesting and important for veterinarians, policy and decision makers in countries would most probably have given priority to the control of zoonoses as the subject for the capacity building in preparedness, response and prevention. If the programme is generic in terms of the disease to tackle it would be a more strategic move to chose for zoonoses, through which a veterinary services' capacity for surveillance, diagnostics, determining control strategies and implementing them would be developed. It is likely that in the coming years there will come funds available to control zoonoses under a "One Health" paradigm: under this concept veterinarians, health professionals and environmentalists work together to eradicate diseases at the "human-animal-environment" interface. This approach has taken a high flight and is becoming a priority area for the national governments, probably at the expense of controlling TADs. Control of zoonoses makes use of similar diagnostic capacity facilities and human resources as TADs, it requires an even more intricate mode of communication because of more parties involved than TADs and should form an integral part of future animal disease control strategies of veterinary services in the region.

Recommendation 6: To FAO AGAH technical department on economic impact assessment of TADs

The study on the economic impact of FMD in Pakistan, which commenced during phase III, should quantify both direct and indirect costs of an outbreak and calculate what the benefit cost relationship of a control programme would be. This Pakistan experience in economic impact assessment should be translated in a well-described and documented methodology, which can be applied in other countries and with other diseases to calculate the cost of disease, the cost and benefits of disease control.

Recommendation 7: To FAO AGAH technical department on strategic choice of participating countries in a future project

Any future regional programme on animal health has to group countries, which form a logical epidemiological unit, facing similar animal disease problems, having the same veterinary structure, having similar trade links and speaking the same language. In the case

of TADs control in Central Asia there would be a programme for the "axis" Pakistan, Afghanistan, Iran, Turkey, which all have veterinary services based on the European system and using English on the one hand and the former Soviet Republic on the other hand. In this way the project objectives can be more specific and relevant for the different groups than they were now and resources can be used more efficiently (e.g. Russian speaking trainers for 5 instead of 3 countries, meetings in Russian, more benefits from translating documents etc.).

Recommendation 8: To FAO AGAH technical department on the right balance between technical, economic, managerial and political aspects of animal disease control and prevention

This programme has put a heavy emphasis on the technical aspects of TAD diagnostics and control, which almost gave it the character of a research programme with capacity building. To make sure that the information gathered will be operationalized any future programmes should have a more balanced approach in which technical, political, managerial and economic aspects are all included within the planning: after determining the prevalence and improved epidemiological information on a disease, be it TAD or zoonosis, an economic impact assessment could contribute the convincing arguments with which a national control strategy can be made acceptable to national government's policy and decision makers and donors for future funding. An approach in which the various aspects are carefully balanced will increase the overall outcome of a similar future programme. The PCP (FAO/OIE) model can and should be enriched with cost estimates for the various steps and be elaborated into a national disease control (and eradication?) strategy.

Recommendation 9: To National Governments on the role of the FAO in the process of their alignment and compliance with SPS measures

All members and aspiring members of WTO agreed to comply with the SPS measures. The standard for the SPS agreement for terrestrial species is the OIE Terrestrial Animal Health Code. This will require changing one's veterinary services to comply with what this document says in terms of veterinary services and disease control strategies and diagnostic methods. The OIE Performance of Veterinary Services (PVS) assessment, together with the gap analysis (basically trying to estimate what it would cost to bring the veterinary services up to the performance level aspired by a country in 5 years' time) provide powerful management, policy and advocacy tools to change the operations of a veterinary service, the veterinary legislation and search for funding from both national budget and donors to implement the strategic plan as laid down in the gap analysis. When individual countries have reached an OIE standards conform approach and methodology in their TAD and zoonoses control it will be much easier to come to a regional control strategy as everybody speaks the same language, follows the same paradigm and only minor harmonization, fine-tuning of national strategies and development of coordination mechanisms are required for a regional approach to the control of TADs. The FAO should be allowed to play the role of moderator, referent and back stopper in the process of countries' alignment with the international standards and procedures, for which the FAO always works along the OIE standards.

Recommendation 10: To National Governments involved in this project and FAO AGAH technical department on gender mainstreaming in veterinary projects and programmes

Although it looks as if a programme like this has no gender issues they are always there. The direct visible ones are to make provision in future project write ups and budgets for female laboratory staff to be able to accept training through the provision of funds for a male relative to accompany her on training trips or to regional technical meetings. It would be good to let a gender specialist have a look through future project or programme proposals to assess whether there are any possible negative effects on gender relations or negative impact on women. An example is e.g. test and slaughter in brucellosis control, whereby a woman might lose a cow providing her and her family with milk and income: such an animal is irreplaceable on short notice and the compensation offered is never enough to buy a comparable animal back.

Recommendation 11: To international organisations and donors working in the Central Asian Countries

The changes in the national animal health and public veterinary health systems required in the various Central and South Asian countries are profound. Countries would need all the support, be it technical, financial, political and moral, to stay the course. One Health makes increasing demands on the animal health care system's capacity to communicate to and collaborate with human health and environmental services/ministries. It would be important for the international organisations to speak with one voice to national governments and follow one agenda, which is science based, transparent and accountable to avoid duplication of efforts or even contradictory messages. In this way maximum results can be expected from the various programme and project interventions. It is suggested to align the earlier suggested FAO livestock production and health 5 year development plan into a document acceptable to and accepted by all and to plan and organize all activities in such a way so as to avoid overlap and gaps.

Annexes

Annex 1: TOR

Terms of Reference (ToR) for the evaluation of project GTFS/INT/907/ITA "Controlling Transboundary Animal Diseases in Central Asian Countries"

1. Background

The Italian funded project "Controlling Transboundary Animal Diseases in Central Asian Countries" (from here after "The Project") officially started in August 2004 with the recruitment of Mr. Giancarlo Ferrari as Project Coordinator. His selection was in line with the agreement between FAO and Italy under the Trust Fund for Food Safety and Food Security – Italian Contribution, which envisages the participation of Italian personnel and institutions in project implementation. The direct beneficiary countries of the project are: Afghanistan, Pakistan, Tajikistan, Turkmenistan and Uzbekistan. The Project was initially planned to terminate on 31 December 2007 (Phase I), but it has been extended until 31 August 2010 (Phase II) and further extended to 31 July 2012 (phase III). Main reasons for these extensions are due to the recognition that diseases known to be present in the region, such as FMD and PPR, do not pose a real issue of early warning and early reaction but rather need a better understanding of the dynamics and factors associated with those diseases and for which a long-term approach was deemed to be necessary.

The development objective is to increase food security by reducing livestock production losses caused by infectious diseases. The project contributes to this by enabling national veterinary services to gain a better understanding of disease prevalence and impact in their countries and to plan and implement appropriate control measures. Sharing goals and adopting common vision on surveillance and control strategies will allow to greatly enhancing mutual confidence between neighboring countries. Institutional building support is a key component of the project objectives whereas the control of TADs is recognized as a public good and consequently public veterinary services play a crucial role in addressing control measures.
The project has contributed to the global rinderpest eradication by providing data to verify regional freedom from the disease.

The key objectives of the project are:

- To verify progress of freedom from rinderpest, enabling countries to enter the OIE Pathway for official recognition of freedom from rinderpest. Beneficiary countries will progressively benefit from avoiding the losses due to the disease and the insecurity of living with the constant risk of a rinderpest epidemic;
- To better understand the impact of Trans-boundary animal diseases focusing specifically on *peste des petits ruminants* (PPR) and foot-and-mouth disease (FMD). An improved knowledge of these diseases in the region will enable more effective planning for control and thus result in reduced animal losses within the countries and in neighbouring countries;
- To establish communication between the countries for collaborative disease control. An improved knowledge of the livestock disease situation in neighbouring countries will

enable national veterinary authorities to assess threats and establish priorities for disease control activities;

- To establish national disease investigation, control and contingency planning for TADs. Establishment or improvement of disease control and contingency plans for disease emergencies, will limit the risk and impact of diseases on livestock farmers, improving the productivity and security of livestock production.

Key outcome(s) – PHASE I:

Although an effective and timely implementation of project activities was slowed down pending endorsement of the project document in Uzbekistan and Turkmenistan and due to the volatile security situation in Afghanistan, some important objectives have been fully achieved:

- **Recognition of freedom from rinderpest.** The major outcome carried out during Phase I was the recognition of freedom from rinderpest. All project beneficiary countries were assisted in carrying out field activities and formulating a dossier to be submitted to the World Organization for Animal Health (OIE) for the official recognition of freedom from the disease. During the OIE General Session in May 2008, Afghanistan, Tajikistan and Uzbekistan were declared and certified as free from rinderpest. Pakistan had obtained such recognition in 2007, while the dossier submitted by Turkmenistan (in 2008) was accepted only in 2010 because of issues unrelated with project activities.

- **Strengthening national disease epidemiologic surveillance abilities of national veterinary services.** The achievement on rinderpest required a great deal of support in order that the whole surveillance system could provide reliable information whether the disease was absent or not. Different training components have been implemented (in addition to laboratory support) targeting: (i) field veterinarians, who improved their clinical abilities to recognize major TADs (rinderpest, FMD and PPR); (ii) farmers, who were reached through the Participatory Disease Surveillance (PDS) approach. In short, the process adopted to ensure that the beneficiary countries were indeed free from rinderpest was based on three different main components: (i) field veterinarians to act as sentinels of the health status of the susceptible population; (ii) farmers as the ones who look after their own animals daily and can provide significant information on their health status; (iii) sample collection and testing which has provided a more objective indication that there was no evidence of Rinderpest in any of the GTFS/INT/907/ITA beneficiary countries. Training activities have been delivered to 2,202 field veterinarians in the five beneficiary countries, while through the PDS activities 571 villages have been reached with 8,336 farmers attending the PDS meetings (on average 15 farmers per meeting). In addition, and in accordance with the provision of OIE, 12,000 blood samples in each country were collected and tested to prove absence of rinderpest.

- **Strengthening diagnostic capacity.** The Project has provided central veterinary laboratories with equipment, supplies and diagnostic kits (along with *ad-hoc* training sessions for local staff) in order to implement the two prescribed rounds of sero-surveillance program aimed to prove the absence of rinderpest from cattle and buffalo population of the region. In addition, the support provided by the project has enabled the beneficiary countries to establish diagnostic protocols for major TADs, such as FMD and PPR.

- **Improvement of technical-institutional relationships.** Sharing goals and adopting common vision on surveillance and control strategies has greatly enhanced mutual confidence between neighbouring countries. The result itself of the Rinderpest campaign appeared to be more robust by knowing that neighbouring countries had achieved similar results adopting the same surveillance approach.

Key outcome(s) – PHASE II

The implementation of phase II has required a major change in the project approach. Once it had become clear that Rinderpest was no longer an issue in the region the project initiated to assist on diseases known to be present and for which field activities had to be redesigned in the framework of a progressive control and stepwise approach knowing that beneficiary countries are to be considered, to different extents, endemic settings for diseases such as FMD and PPR.

In this regard, the project - in close collaboration with the European Commission for the control of Foot-and-Mouth Disease (EuFMD) based in FAO Headquarters in Rome – has designed a regional progressive approach for the control (PCP) of FMD in the West Eurasia region (which includes GTFS/INT/907/ITA beneficiary countries). This approach has been subsequently (in 2010) endorsed by the OIE and it is one of the tools under the Global Framework for Trans-boundary animal diseases, a joint FAO/OIE global initiative. The PCP-FMD is based on indicators of country progress in risk identification and risk management, along a progressive control pathway of 5 stages (1- 5), enabling countries to recognize in which phase they are and which set of activities are a priority to move forward to the next stage. This progressive approach has been further formalized in late 2010 (through an expert consultation meeting held in Pirbright - UK).

- **Progressive approach.** The project has assisted beneficiary countries to possibly identify how the overall risk of FMD and PPR may be differently distributed among different animal husbandry systems. The main purpose of this approach is to enable the national veterinary authorities to target control activities (in contexts where financial resources are rather limited). In this regard specific surveillance programs have been implemented, which foresee collection of samples from various animal husbandry systems (household vs commercial vs transhumant etc.). The program was presented at the international conferences "*The Global Control of FMD: tools, ideas and ideals" organized by EuFMD* in Erice (Italy) on 14-17 October 2008 and "*The Development of a roadmap for the progressive control of Foot-and-Mouth disease"* jointly organized by GTFS/INT/907/ITA and EuFMD in Shiraz (Iran) on 9-13 November 2008. Much of the work and approaches has generated from the experience gained in Pakistan, which was a step forward as per the rinderpest eradication process. In this regard, the project was in a position during Phase I to support certain field activities in Pakistan; whereas in other countries these activities started during Phase II. In Pakistan a collaborative study with the Danish Institute for Food and Veterinary Research had been undertaken during 2006, 2007 and part of 2008. The field activities enabled to clearly identify that a particular animal husbandry system (the so-called "dairy colonies", which are present only in Pakistan around big cities like Karachi, Lahore and Islamabad) is a natural reservoir of FMD. In this regard, the project is already in a position to assist in the formulation of targeted control activities ranking this production system as the first that would need to be addressed in order to progressively decrease the overall load of the virus. Based on this,

the issue is now to identify which animal husbandry system in other countries should be firstly addressed. The preliminary results of these activities have been discussed in the Project Technical Meeting, Ankara (Turkey), 15-19 June 2009. The final results have been presented in the Project Tripartite Regional Meeting held in Istanbul (Turkey), 5-9 October 2009, concurrently with the second meeting of the West Eurasia Roadmap.

- **Training component.** In order to support adequately the field activities, the project beneficiary countries needed to upgrade the diagnostic protocols and introduce novel tests that were not in use before. In this regard two letters of agreement (LoA) were signed between the Project and: (i) the *Istituto Zooprofilattico Sperimentale della Lombardia ed Emilia Romagna* (IZSLER), which is the Italian National Reference laboratory for FMD based in Brescia, to provide training and supply with reagents project beneficiary countries. In this regard, six laboratory specialists - three from Afghanistan and three from Pakistan - undertook a training of trainers (ToT) course in Brescia on FMD laboratory diagnosis from 10 to 18 December 2008. Subsequently a master trainer from Pakistan visited the remaining beneficiary countries to make a cascade training to laboratory staff on the same topics; (ii) the Danish Institute for Food and Veterinary Research, Lindholm (Denmark) where a senior scientist from Pakistan has been based (supported by the project) in order to genetically characterize the field samples collected in the framework of the project activities.

The overall results of the FMD activities have been presented during the 4th Annual Meeting of EPIZONE held in St. Malo (France) from 7 – 10 June 2010. The methodological approach proposed by the project has been presented also at the Open Session of the EuFMD Standing Technical Committee which was held in Vienna (Austria) from 28 September to 1 October 2010 and at the General Session of the EU-FMD held in Rome on 27-28 April 2011.
Key outcome(s) – PHASE III

The project is currently operating under its phase III (NTE as per 31 July 2012). The main objectives of this phase is to consolidate the work carried out so far in order that individual countries with minor investments (basically diagnostic kits) may sustain field activities. Phase III aims at further assisting Afghanistan, Pakistan, Tajikistan, Turkmenistan and Uzbekistan in progressing along the pathway. The diagnostic capability will be further consolidated and the project will assist in developing the capacity of designing and implementing monitoring and surveillance systems aimed at generating the desired information.

The current phase is mainly assisting in providing training and support in order to optimize control efforts in situations where financial resources are rather limited. Of note that in countries like Pakistan the background information on FMD generated through the project activities has represented the backbone for formulating an additional project (funded by United States Department of Agriculture – USDA).

Major difficulties encountered along with project implementations are mainly due to two completely different issues: (i) in countries like Afghanistan because of security certain areas were not accessible to project activities; (ii) in countries of the former Soviet Union block TADs is a rather sensitive issue for the veterinary services and the project has been able to assist to an extent such that to move forward is really necessary that countries are encouraged

to report the presence of those diseases. This internal effort has now become an essential pre-requisite for the long-term success of the project.

2. Purpose of the Evaluation

The evaluation is intended, as the project draws to a close, to provide recommendations to the Government, FAO and the donor on the further steps necessary to consolidate progress and ensure achievement of objectives, as well as to extract learned lessons from the intervention. Any further need for external assistance will also be identified.

3. Scope and evaluation approach.

The evaluation team will specifically assess the:

a) Relevance of the project to the countries' priorities and needs for TADs prevention, mitigation and control; in particular, the mission should review the proposed long-term vision approach (progressive control) built through the project;

b) Quality, clarity and adequacy of project design including;
- provisions for programme adjustments and flexible response to opportunities and changing circumstances;
- realism and clarity of capacity building and training approaches;
- realism and clarity of project's coverage and targeting of beneficiaries;

c) Efficiency and adequacy of programme implementation including:
- availability of funds and human resources;
- managerial and work efficiency;
- extent of national support and commitment, and quality and quantity of administrative and technical support by FAO;

d) Sustainability prospects of the proposed approach, taking into account:
- Institutional issues surrounding TADs prevention and control activities;
- The annual investment required to maintain project activities considering that major investments in non-expandable technical and laboratory equipment have been sustained by the project.
- The prospects for sustaining and up-scaling the project's results by the beneficiaries and the host institutions after the termination of the initiative.

The evaluation will also assess any possible effects that the project might have had on national policy reform and programme development, national investment in – and attention for – animal health. Gender mainstreaming[1] will also be evaluated.

[1] This may cover: i) Analysis of how gender issues were reflected in project objectives, design, identification of beneficiaries and implementation; ii) analysis of how gender relations, gender equality and processes of women's inclusion were and are likely to be affected by the project, including in relation to access to resources and benefits and to empowerment aspects; and, iii) extent to which gender issues were taken into account in project management.

4. Composition of the Mission

The evaluation team will consist of:
A team leader, who will be a senior expert in Veterinary Sciences with over 15 years of international experience in animal health issues, an excellent knowledge of the Central and South Asia region, and previous experience in evaluation;

- A senior evaluation consultant, who will be an expert in Veterinary Science with over 10 years of international experience in animal health issues, and documented experience in veterinary service delivery with specific reference to Trans-boundary animal diseases;

5. Timetable and Itinerary of the Mission

The Mission will be fielded for about 3-4 weeks (in November 2011). Its itinerary will comprise of a briefing at FAO HQ (on the way down to the countries that will be visited). All the relevant documentation as well as an updated and comprehensive Progress Project Report will be made available to the Mission at least one week before the start of the mission.
The itinerary of the mission will tentatively comprise:

- Desk Study (one week)
- Briefing by FAO HQ Project Coordinator (estimated two days);
- Travel to Pakistan and briefing by FAO Representation and national staff;
- Meetings with Government and Partners (estimated three days);
- Travel to Afghanistan and briefing by FAO Representation and national staff;
- Meetings with Government and Partners (estimated three days);
- Travel to Tajikistan and briefing by FAO national staff;
- Meetings with Government and Partners (estimated three days);
- Travel back to his/her own country;
- Report Writing and submission to FAO.

6. Consultations

The mission will maintain close liaison with the Representatives of the donor and FAO and the concerned national agencies, as well as with national and international project staff. Although the mission should feel free to discuss with the authorities concerned anything relevant to its assignment, it is not authorized to make any commitments on behalf of the Government, the donor, or FAO.

7. Reporting

The mission is fully responsible for its independent report which may not necessarily reflect the views of the Government, the donor or FAO. The report will be written in conformity with the headings shown in Annex 1.
The report will be completed, to the extent possible, in the country and the findings and recommendations fully discussed with all concerned parties and wherever possible consensus achieved.

Outline of the Project Evaluation Report

I. Executive Summary (Main Findings and Recommendations)

II. Introduction

III. Background and Context

IV. Assessment of Project Objectives and Design

- A. Justification
- B. Objectives
- C. Project Design

V. Assessment of Project Implementation, Efficiency and Management

- A. Project Budget and Expenditure
- B. Activities and Outputs
- C. Government Support
- D. Project Management
- E. Technical and Operational Backstopping

VI. Assessment of Results and Effectiveness

- A. Effects and Impact
- B. Sustainability of Results
- C. Gender Mainstreaming
- D. Major Factors Affecting the Project Results

VII. Conclusions and Recommendations

- A. Conclusions
- B. Recommendations

VIII. Lessons Learned

Annex 2 Profile of team members

Anton van Engelen, team leader/livestock specialist
Mr. van Engelen is a consultant with extensive experience in project identification, formulation, implementation, monitoring and evaluation, built up during 15 years working in projects in different countries in Africa and 11 years' international consulting. During the last 7 years he has been active in agribusiness sector development through value chain analyses, project formulation, livestock sector studies, advisory services and policy advisory work with World Bank, IFAD, ADB and FAO in West Africa, Eastern Europe, the Balkan and Central Asia. He has executed evaluations for EU, NGOs, FAO, OIE and the World Bank. He has worked and lived in Central Asia since 2006 up till now. He has been extensively involved in the improvement of the Kyrgyz veterinary services and in a number of livestock sector studies in Central Asia. His involvement with Afghanistan started in January 2003, where he has done various assignments in different parts of the country for a range of organisations. He has been involved in a number of evaluations for WB, FAO and NGOs. He just concluded a 4 months' "One Health" economic impact assessment of 2 zoonoses, for which he travelled extensively through Uzbekistan, Tajikistan, Kazakhstan and Kyrgyzstan. Through these visits he was well aware of the state of affairs in the veterinary services in the various countries. He has worked for the last 8 years intermittently in Afghanistan.

Andrea Massarelli, veterinarian
Dr. Massarelli is a veterinarian with more than 26 years of professional experience -most of which spent in less developed and transition countries- He gained considerable experience in animal health project management, monitoring and evaluation following the procedures of UN agencies, EU and bilateral donors and worked from 2001 to 2009 for large regional animal diseases control projects, aiming at the control and eradication of Rinderpest from the African continent (PACE Programme, 2001-2007) and for the control of FMD in the southern region of Africa (SADC FMD Control programme, 2007-2009). Dr Massarelli participated in the design of the Pan-African HPAI control and eradication mechanism and the establishment of the FMD Progressive Control Pathway for Southern Africa. Since 1997 Dr Massarelli took part as team leader or technical expert to 7 external evaluation missions. During his career Dr Massarelli worked in more than 45 countries, among which China, Afghanistan and Yemen in the Asian continent. He has extensive work experience in the control and eradication of FMD in Southern Africa and in general epidemiology in other parts of the world. He knows the Italian veterinary "scene", which was important for the training and technical backstopping of this programme.

Together the team possessed both the specific geographical and subject matter knowledge and experience to attempt to understand the issues of this programme in a short period and make recommendations for future needs and approaches.

Annex 3 List of documents reviewed

Author	Title	Date
Italian Trust Fund for Food Security and Food Safety	Project document: "Controlling Transboundary Animal Diseases in Central Asian Countries"	2003
GTFS Project	Project Progress Reports (15 reports)	2004-2011
GTFS Project	Tripartite meetings minutes (3 reports)	2006-2009
Various	Back to Office Reports (51 reports)	2004-2011
GTFS Project	Technical Report on FMD in Afghanistan 2008-2010	2011
GTFS Project	Design of FMD surveillance	2011
GTFS Project	Design of PPR surveillance	2010
GTFS Project	FMD Prevalence results Tajikistan	2010
GTFS Project	FMD Prevalence results Turkmenistan	2010
GTFS Project	Design of FMD sero-Survey in Caucasus Region	2010
GTFS Project	Prevalence of Brucellosis in Milk - Pakistan	2011
EUFMD	West EurAsia Roadmap Report – 1st Meeting, Turkey	2009
EUFMD	West EurAsia Roadmap Report – 2nd Meeting, Turkey	2010
Central Asia OH Project	Economic Impact Assessment of Zoonoses in C. Asia	2011

Annex 4 List of institutions and stakeholders met during the evaluation process

Name	Function	Organisation	Country	Place
Kashkuloev,Makhmadnazar	Chairperson	Taj.Vet.Association	Tajikistan	Dushanbe
Toshmatov,Nodir	Deputy Chairperson	Taj.Vet.Association	Tajikistan	Dushanbe
Khamroev, Karomatullo	Nat. Epidemiologist	CCPP project	Tajikistan	Dushanbe
Musoev,Zohir	Trainer	Taj.Vet.Association	Tajikistan	Dushanbe
Khakimov, Tolibdzhon	Project Assistant	CCPP project	Tajikistan	Dushanbe
Murvatulloev, Sangimurod	Nat. Epidemiologist	TAD project FAO	Tajikistan	Dushanbe
Yuldosheva, Kamila	Project Assistant	TAD project FAO	Tajikistan	Dushanbe
Amirbekov, Mulojon	Chief Vet. Officer	MinAg	Tajikistan	Dushanbe
Mahmadshoev, Abdurahmon	Director	Central Vet. Diagnostic Lab	Tajikistan	Dushanbe
Jawad, Nassim	Coordinator	FAO office	Tajikistan	Dushanbe
Yatimov, Bobojon	Senior Rur. Dev. Officer	World Bank	Tajikistan	Dushanbe
Azizbek Sharipov	Chief	Nat. Ass. Of Dehkan Farms	Tajikistan	Dushanbe
Irzoevov ????	Dep. Minister Livestock	MinAg	Tajikistan	Dushanbe
Sharipov, Murodali	Director	Vet. Expeditia	Tajikistan	Dushanbe
Shurad	Dep. Director	Biol.Prep. Enterprise	Tajikistan	Dushanbe
Sumption, Keith	Coordinator	EUFMD	Italy	Rome
Ferrari, Giancarlo	Project Leader	GTFS TADs Projects	Italy	Rome
Ciniglio, Umberto	Operation Clerk	GTFS TADs Projects	Italy	Rome
Lora, Enrique	Evaluation Officer	OEDD/FAO	Italy	Rome
Moore, Robert	Director	OEDD/FAO	Italy	Rome
Tekola, Berhe	Director	AGA/FAO	Italy	Rome
Ulugmuradov, Azamat	Dep. Director	Vet. Services	Uzbekistan	Samarkand
Muhamad Jan	Specialist	Vet. Services	Uzbekistan	Samarkand
Del vio Rias,Victor	Nat. Coordinator	DTRA	Uzbekistan	Tashkent
Eranov, Mukhidin	Nat. Epidemiologist	TAD project FAO	Uzbekistan	Tashkent
Shamurad	Head Epidemiologist	Vet. Services	Uzbekistan	Tashkent
Ashurov, Sabir	Head	FMD Institute	Uzbekistan	Tashkent
Zabeeh Ahmad	Assistan Representative	FAO office	Pakistan	Islamabad
Mohammad Ahmad	National Coordinator	TAD project FAO	Pakistan	Islamabad
Masud Khan	Project Assistant	TAD project FAO	Pakistan	Islamabad
Qurban Ali	Director General	National Veterinary Lab	Pakistan	Islamabad
Muhammad Afzal	Project Coordinator	FAO/USDA FMD Project	Pakistan	Islamabad
Manzoor Hussain	National Project Director	FAO/USDA FMD Project	Pakistan	Islamabad
Aamer Bin Zahur	Senior Scientific Officer	Animal Science Institute	Pakistan	Islamabad
Mohammed Sawid Arshed	Principal Scientific Officer	National Veterinary Lab	Pakistan	Islamabad
Ghulam Sarwar Shaikh	Director General	Livestock & Fishery Dept	Pakistan	Karachi
Ahmad Arash Aslami	Laboratory Specialist	FAO Afghanistan	Afghanistan	Kabul
Tamim Latifzada	Project Assistant	TAD project FAO	Afghanistan	Kabul
Mohammed Ibrahim Frotan	Head Planning & Policy	MAIL	Afghanistan	Kabul
Tania Dennison	Project Manager	EU AHD Programme	Afghanistan	Kabul
Jorgen Hanssen	Senior Advisor – MAIL	EU/GRM International	Afghanistan	Kabul
Osmani	Former CVO	MAIL	Afghanistan	Kabul

Annex 5 Itinerary of the field mission

Date	Activity	Place
07-Nov	Briefing at FAO HQ	Rome
08-Nov	Briefing at FAO HQ	Rome
09-Nov	Travel to Tajikistan	Travel
10-Nov	Arrival in Dushanbe - official meetings	Dushanbe
11-Nov	Evaluation of Tajikistan project component	Dushanbe
12-Nov	Evaluation of Tajikistan project component	Dushanbe
13-Nov	Travel to Pakistan via Urumqui	Travel/Islamabad
14-Nov	Official meetings Islamabad	Islamabad
15-Nov	Field mission to Karachi	Karachi
16-Nov	Evaluation of Pakistan project component	Islamabad
17-Nov	Travel to Afghanistan - Official meetings	Kabul
18-Nov	Evaluation of Afghanistan project component	Kabul
19-Nov	Evaluation of Afghanistan project component	Kabul
20-Nov	Evaluation of Afghanistan project component	Kabul
21-Nov	Travel to home station	Travel

Annex 6: Comparative table on annual disease reports to OIE

Year	2011								2010								2009								2008								2007								2006								2005							
Country	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN
Disease	👎		👎	👎	👎	👎		👎			👎		👎	👎						👎	👎	👎						👎								👎								👎								👎		👎		
Acarapisosis of Honey Bees																✓								✓								✓								✓																✓
Actinomycosis																✓								✓													✓	✓		✓					✓	✓		✓					✓			✓
American Foulbrood of honey bees												✓				✓								✓								✓								✓																
Anthrax		✓							✓	✓					✓	✓	✓	✓	✓					✓	✓	✓	✓			✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓				✓	✓	✓	✓	✓						✓
Aujeszky's Disease																							✓																																	
Avian Chlamydiosis																		✖																																						
Avian Infectious Bronchitis																✓		✖	✓					✓			✓					✓								✓								✓								✓
Avian Infectious Laryngotracheitis		✓								✓		✓						✖																	✓																					
Avian Mycoplasmosis (M. synoviae)																✖			✓								✓					✓			✓					✓																
Avian Spirochaetosis																																						✓								✓										
Avian Tuberculosis																																																					✓			
Blackleg										✓						✓								✓													✓	✓		✓					✓	✓		✓					✓			✓
Bluetongue																✓		✖	✓					✓		✓	✓					✓			✓													✓								✓
Botulism																																								✓																
Bovine Anaplasmosis												✓				✓		✖						✓								✓							✖	✓								✓								✓
Bovine Babesiosis																✓		✖	✓					✓			✓					✓			✓				✖	✓								✓								✓
Bovine Brucellosis$																																																	✓				✓		✓	✓
Bovine Cysticercosis																																																								✓
Bovine Genital Campylobacteriosis		✓								✚						✖		✖						✖					✓			✖					✓			✖					✓								✓			
Bovine Tuberculosis		✓								✓						✓		✖	✓					✓			✓		✓			✓			✓		✓		✖	✓	✓				✓		✓	✓	✓				✓		✓	✓
Brucellosis (B. abortus)		✓					✓		✓	✓		✖			✓	✓	✓	✖	✓				✓	✓	✓		✓		✓	✓		✓	✓		✓		✓	✓	✓	✓	✓				✓	✓	✓	✓								
Brucellosis (B. melitensis)		✓					✓		✓	✓		✖			✓	✓	✓		✓				✓	✓	✓		✓		✓	✓		✓	✓		✓		✓	✓	✓	✓	✓				✓	✓	✓	✓								
Brucellosis (B. suis)																														✓									✖																	
Camelpox																✓								✓								✓								✓																
Caseous Lymphadenitis																✓								✓																✓								✓								✓
Coccidiosis																✓								✓														✓		✓						✓		✓								✓
Contageous Agalactia																✓								✓								✓								✓								✓								✓
CBPP																		✖																																						
CCPP		✓							✓	✓						✓	✓	✖	✓					✓		✓	✓					✓			✓					✓			✓					✓		✓	✓					✓
Contageous Ophtalmia																																					✓								✓								✓			
Contageous Pustular Dermatitis										✓								✖																				✓								✓										
Crimean Congo Haemorragic fever																✖			✓					✖			✓					✖			✓				✖	✖																
Distomatosis (liver fluke)																✓								✓													✓	✓		✓					✓	✓		✓					✓			✓
Dourine												✓						✖	✓								✓			✓					✓			✓	✖	✓						✓										
Echinococcosis/Hydatidosis		✚								✚		✓																	✓	✓							✓	✓	✓	✓					✓	✓		✓					✓			✓
Enterotoxaemia										✓						✓								✓		✓											✓	✓		✓					✓	✓		✓					✓			✓
Enzootic Abortion (Chlamydiosis)		✓																						✖					✓	✓		✖					✓	✓		✚					✓	✓							✓			
Enzootic Bovine Leukosis																✓								✓						✓		✓					✓	✓		✓					✓	✓		✓					✓			
Equine Infectious Anemia																		✖																			✓								✓								✓			
Equine Influenza																																							✖																	
Equine Piroplasmosis																		✖																					✖																	
European Foulbrood of Honey Bees																✓								✓								✓								✓																
FMD		✓					✓			✓					✓	✓		✓	✓							✓	✓			✓		✓		✓	✓			✓	✓	✓		✓	✓			✓		✓		✓	✓					✓
Foot-rot																																					✓	✓		✓					✓	✓		✓					✓			✓
Fowl Cholera		✓								✓								✖	✓								✓								✓						✓								✓							
Fowl Typhoid												✓						✖	✓								✓										✓								✓								✓			
Glanders		✓														✓		✖						✓								✖								✖																
Gumboro Disease		✓														✓		✖						✓			✓					✓			✓					✓								✓		✓						✓
Haemorragic Septicemia		✓								✓						✓		✓	✓					✓		✓	✓					✓		✓	✓						✓	✓	✓					✓	✓	✓	✓					✓
HPAI																		✖									✓					✓		✓						✓		✓	✓				✓	✓								

Year	2011							
Country	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN
Disease	👎		👎	👎	👎	👎		👎
Infectious Bovine Rinotracheitis (IBR/IPV)								
Infectious Haematopoietic Necrosis								
Infectious Pancreatic Necrosis								
Intestinal Salmonella Infections								
Leishmaniosis		✦						
Leptospirosis								
Listeriosis								
Low Pathogenic AI								
Lumpy Skin Disease								
Marek's Disease								
Malignant Catarrhal Fever								
Mucosal Disease (BVD)								
Mycoplasmosis (M. Gallisepticum)								
Newcastle Disease		✓						
Nosemosis of Bees								
O.W. Screwworm (C. bezziana)								
Other Avian Salmonellosis								
Other Chlostridial Infections								
Other Pasteurelloses								
Ovine Epididymitis (B. ovis)								
Ovine Pulmonary Adenomatosis								
Paratuberculosis		✓						
Peste des Petits Ruminants		✓						
Porcine Cysticercosis								
Pullorum Disease								
Q fever		✓						
Rabbit Haemorragic Disease								
Rabies		✓						
Salmonellosis (S. abortus ovis)		✓						
Scrapie								
Sheep/goat Brucellosis*								
Sheep Mange								
Sheep/goat Pox		✓						
Spring Viraemia of Carp								
Strangles								
Surra (Trypanosoma evansi)		✓						
Swine Erysipelas								
Theileriosis								
Toxoplasmosis								
Transmissible Gastroenteritis								
Trichinellosis								
Trichomonosis								
Trypanosomosis								
Turkey rhinotracheitis								
Ulcerative Lymphangitis								
Varroosis of honey bees								
Vescicular Stomatitis								
Vibrionic Dysentery								
Viral Haemorragic Septicemia								
Warble Infestation								
White Spot Disease								

Year	2010							
Country	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN
Disease			👎		👎	👎		
Infectious Bovine Rinotracheitis (IBR/IPV)								✓
Infectious Haematopoietic Necrosis								
Infectious Pancreatic Necrosis								
Intestinal Salmonella Infections								✓
Leishmaniosis		✦		✓				✖
Leptospirosis	✓			✓				
Listeriosis		✓						✓
Low Pathogenic AI								✓
Lumpy Skin Disease								
Marek's Disease								
Malignant Catarrhal Fever								
Mucosal Disease (BVD)								✓
Mycoplasmosis (M. Gallisepticum)								✓
Newcastle Disease		✓		✓				✓
Nosemosis of Bees								✓
O.W. Screwworm (C. bezziana)								
Other Avian Salmonellosis								
Other Chlostridial Infections								✓
Other Pasteurelloses								✓
Ovine Epididymitis (B. ovis)								
Ovine Pulmonary Adenomatosis								
Paratuberculosis								✓
Peste des Petits Ruminants		✓						✓
Porcine Cysticercosis								
Pullorum Disease				✓				
Q fever								
Rabbit Haemorragic Disease								
Rabies	✓	✓		✓				✓
Salmonellosis (S. abortus ovis)		✖						
Scrapie								
Sheep/goat Brucellosis*								
Sheep Mange								✓
Sheep/goat Pox	✓	✓					✓	✓
Spring Viraemia of Carp								
Strangles								
Surra (Trypanosoma evansi)		✖		✦				✓
Swine Erysipelas								
Theileriosis		✓						✓
Toxoplasmosis								
Transmissible Gastroenteritis								
Trichinellosis								
Trichomonosis								
Trypanosomosis								
Turkey rhinotracheitis								✓
Ulcerative Lymphangitis								
Varroosis of honey bees				✓				✓
Vescicular Stomatitis								
Vibrionic Dysentery								
Viral Haemorragic Septicemia				✓				
Warble Infestation								
White Spot Disease								✓

Year	2009							
Country	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN
Disease				👎	👎	👎		
Infectious Bovine Rinotracheitis (IBR/IPV)								✓
Infectious Haematopoietic Necrosis								
Infectious Pancreatic Necrosis								
Intestinal Salmonella Infections								✓
Leishmaniosis		✖						✖
Leptospirosis	✓	✖	✓					✓
Listeriosis								✓
Low Pathogenic AI		✖						✓
Lumpy Skin Disease		✖						
Marek's Disease		✖	✓					
Malignant Catarrhal Fever								
Mucosal Disease (BVD)								✓
Mycoplasmosis (M. Gallisepticum)		✖	✓					
Newcastle Disease		✖	✓					✓
Nosemosis of Bees								✓
O.W. Screwworm (C. bezziana)								✓
Other Avian Salmonellosis								
Other Chlostridial Infections								✓
Other Pasteurelloses								✓
Ovine Epididymitis (B. ovis)								
Ovine Pulmonary Adenomatosis								
Paratuberculosis		✖						✓
Peste des Petits Ruminants	✓	✓	✓					✓
Porcine Cysticercosis								
Pullorum Disease		✖	✓					
Q fever		✓						
Rabbit Haemorragic Disease								
Rabies	✓	✖	✓					✓
Salmonellosis (S. abortus ovis)		✖						
Scrapie								
Sheep/goat Brucellosis*								
Sheep Mange								✓
Sheep/goat Pox	✓	✓	✓				✓	✓
Spring Viraemia of Carp								
Strangles								
Surra (Trypanosoma evansi)		✖	✓					✓
Swine Erysipelas								
Theileriosis		✖	✓					✓
Toxoplasmosis								
Transmissible Gastroenteritis								
Trichinellosis								
Trichomonosis			✓					
Trypanosomosis			✓					
Turkey rhinotracheitis								
Ulcerative Lymphangitis								
Varroosis of honey bees								✓
Vescicular Stomatitis		✖	✓					
Vibrionic Dysentery								
Viral Haemorragic Septicemia								
Warble Infestation								
White Spot Disease								

Year	2008							
Country	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN
Disease				👎				
Infectious Bovine Rinotracheitis (IBR/IPV)								✓
Infectious Haematopoietic Necrosis								
Infectious Pancreatic Necrosis								
Intestinal Salmonella Infections								
Leishmaniosis					✓			✖
Leptospirosis			✓			✓		✓
Listeriosis								
Low Pathogenic AI								✓
Lumpy Skin Disease								
Marek's Disease			✓					
Malignant Catarrhal Fever								
Mucosal Disease (BVD)								✓
Mycoplasmosis (M. Gallisepticum)			✓					
Newcastle Disease			✓					✓
Nosemosis of Bees								
O.W. Screwworm (C. bezziana)								✓
Other Avian Salmonellosis								
Other Chlostridial Infections								
Other Pasteurelloses								
Ovine Epididymitis (B. ovis)					✓	✓		
Ovine Pulmonary Adenomatosis								
Paratuberculosis								✓
Peste des Petits Ruminants	✓	✓	✓					✓
Porcine Cysticercosis					✓	✓		
Pullorum Disease			✓					
Q fever		✓						
Rabbit Haemorragic Disease								
Rabies	✓		✓		✓	✓		✓
Salmonellosis (S. abortus ovis)					✓			
Scrapie								
Sheep/goat Brucellosis*								
Sheep Mange								
Sheep/goat Pox	✓	✓	✓					✓
Spring Viraemia of Carp								
Strangles								
Surra (Trypanosoma evansi)			✓					✓
Swine Erysipelas								
Theileriosis			✓		✓			✓
Toxoplasmosis								
Transmissible Gastroenteritis								
Trichinellosis					✓			
Trichomonosis			✓		✓			
Trypanosomosis			✓					
Turkey rhinotracheitis								
Ulcerative Lymphangitis								
Varroosis of honey bees						✓		✓
Vescicular Stomatitis			✓					
Vibrionic Dysentery								
Viral Haemorragic Septicemia								
Warble Infestation								
White Spot Disease								✓

Year	2007							
Country	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN
Disease				👎				
Infectious Bovine Rinotracheitis (IBR/IPV)								✓
Infectious Haematopoietic Necrosis								✦
Infectious Pancreatic Necrosis								
Intestinal Salmonella Infections					✓	✓		✓
Leishmaniosis					✓			✖
Leptospirosis	✓		✓			✓	✖	✓
Listeriosis						✓		✓
Low Pathogenic AI								✓
Lumpy Skin Disease								
Marek's Disease			✓					
Malignant Catarrhal Fever								
Mucosal Disease (BVD)								✓
Mycoplasmosis (M. Gallisepticum)			✓					✓
Newcastle Disease			✓					✓
Nosemosis of Bees								✓
O.W. Screwworm (C. bezziana)								
Other Avian Salmonellosis					✓			
Other Chlostridial Infections						✓		✓
Other Pasteurelloses						✓		✓
Ovine Epididymitis (B. ovis)					✓	✓	✖	
Ovine Pulmonary Adenomatosis								
Paratuberculosis								✓
Peste des Petits Ruminants	✓	✓	✓					✓
Porcine Cysticercosis					✓	✓		✓
Pullorum Disease			✓					
Q fever								
Rabbit Haemorragic Disease						✓		
Rabies	✓		✓		✓	✓	✓	✓
Salmonellosis (S. abortus ovis)					✓			
Scrapie								
Sheep/goat Brucellosis*								
Sheep Mange						✓		✓
Sheep/goat Pox	✓	✓	✓					✓
Spring Viraemia of Carp								✦
Strangles								
Surra (Trypanosoma evansi)			✓					✓
Swine Erysipelas						✓		
Theileriosis			✓		✓			✓
Toxoplasmosis								
Transmissible Gastroenteritis								
Trichinellosis					✓		✖	
Trichomonosis			✓		✓			
Trypanosomosis			✓					
Turkey rhinotracheitis								
Ulcerative Lymphangitis					✓			
Varroosis of honey bees						✓		✓
Vescicular Stomatitis			✓					
Vibrionic Dysentery					✓			
Viral Haemorragic Septicemia								✦
Warble Infestation					✓	✓		
White Spot Disease								✓

Year	2006							
Country	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN
Disease				👎				
Infectious Bovine Rinotracheitis (IBR/IPV)								✓
Infectious Haematopoietic Necrosis								✓
Infectious Pancreatic Necrosis								✓
Intestinal Salmonella Infections					✓	✓		✓
Leishmaniosis					✓			
Leptospirosis	✓					✓		✓
Listeriosis						✓		✓
Low Pathogenic AI								
Lumpy Skin Disease								
Marek's Disease								
Malignant Catarrhal Fever								
Mucosal Disease (BVD)								✓
Mycoplasmosis (M. Gallisepticum)								✓
Newcastle Disease	✓	✓						✓
Nosemosis of Bees								
O.W. Screwworm (C. bezziana)								
Other Avian Salmonellosis					✓			
Other Chlostridial Infections						✓		✓
Other Pasteurelloses						✓		✓
Ovine Epididymitis (B. ovis)					✓	✓	✓	
Ovine Pulmonary Adenomatosis								
Paratuberculosis								✓
Peste des Petits Ruminants		✓	✓					✓
Porcine Cysticercosis					✓			✓
Pullorum Disease								
Q fever								
Rabbit Haemorragic Disease						✓		
Rabies	✓				✓	✓	✓	✓
Salmonellosis (S. abortus ovis)					✓			
Scrapie								
Sheep/goat Brucellosis*								
Sheep Mange						✓		✓
Sheep/goat Pox	✓	✓	✓			✓		✓
Spring Viraemia of Carp								
Strangles								✓
Surra (Trypanosoma evansi)								✓
Swine Erysipelas						✓		
Theileriosis					✓			✓
Toxoplasmosis								✓
Transmissible Gastroenteritis						✓		
Trichinellosis					✓			
Trichomonosis					✓			
Trypanosomosis								
Turkey rhinotracheitis								
Ulcerative Lymphangitis					✓			
Varroosis of honey bees						✓		
Vescicular Stomatitis								
Vibrionic Dysentery					✓			
Viral Haemorragic Septicemia								
Warble Infestation					✓	✓		
White Spot Disease								

Year	2005							
Country	TDJ	AFG	PAK	TUR	UZB	KYR	KAZ	IRN
Disease				👎		👎		
Infectious Bovine Rinotracheitis (IBR/IPV)								✓
Infectious Haematopoietic Necrosis								✓
Infectious Pancreatic Necrosis								✓
Intestinal Salmonella Infections					✓			✓
Leishmaniosis					✓			✓
Leptospirosis	✓							✓
Listeriosis								✓
Low Pathogenic AI								
Lumpy Skin Disease								
Marek's Disease		✓						
Malignant Catarrhal Fever								✓
Mucosal Disease (BVD)								✓
Mycoplasmosis (M. Gallisepticum)								✓
Newcastle Disease	✓	✓						✓
Nosemosis of Bees								
O.W. Screwworm (C. bezziana)								
Other Avian Salmonellosis					✓			
Other Chlostridial Infections								✓
Other Pasteurelloses								✓
Ovine Epididymitis (B. ovis)					✓		✓	
Ovine Pulmonary Adenomatosis					✓			✓
Paratuberculosis								✓
Peste des Petits Ruminants		✓	✓					✓
Porcine Cysticercosis					✓			
Pullorum Disease		✓						
Q fever								
Rabbit Haemorragic Disease								
Rabies	✓	✓			✓		✓	✓
Salmonellosis (S. abortus ovis)					✓			
Scrapie	✓							
Sheep/goat Brucellosis*	✓				✓		✓	✓
Sheep Mange								✓
Sheep/goat Pox	✓	✓	✓					✓
Spring Viraemia of Carp								
Strangles								
Surra (Trypanosoma evansi)		✓						✓
Swine Erysipelas								
Theileriosis					✓			✓
Toxoplasmosis								
Transmissible Gastroenteritis								
Trichinellosis					✓			
Trichomonosis					✓			
Trypanosomosis								
Turkey rhinotracheitis								
Ulcerative Lymphangitis								
Varroosis of honey bees								✓
Vescicular Stomatitis								
Vibrionic Dysentery					✓			
Viral Haemorragic Septicemia								✓
Warble Infestation					✓			✓
White Spot Disease								

AFGHANISTAN

Disease	2011	2010	2009	2008	2007	2006	2005
Anthrax	✓	✓	✓	✓	✓	✓	✓
Avian Chlamydiosis			✦				
Avian Infectious Bronchitis			✦				
Avian Infectious Laryngotracheitis	✓	✓	✦				
Blackleg		✓					
Bluetongue			✦	✓			
Bovine Anaplasmosis			✦				
Bovine Babesiosis			✦				
Bovine Genital Campylobacteriosis	✓	✦	✦				
Bovine Tuberculosis	✓	✓	✦				
Brucellosis (B. abortus)	✓	✓	✦				
Brucellosis (B. melitensis)	✓	✓					
CBPP			✦				
CCPP	✓	✓	✦	✓			✓
Contageous Pustular Dermatitis		✓	✦				
Dourine			✦				
Echinococcosis/Hydatidosis	✦	✦					
Enterotoxaemia		✓		✓			
Enzootic Abortion (Chlamydiosis)	✓						
Enzootic Bovine Leukosis							
Equine Infectious Anemia			✦				
Equine Piroplasmosis			✦				
FMD	✓	✓	✓	✓	✓	✓	✓
Fowl Cholera	✓	✓	✦				
Fowl Typhoid			✦				
Glanders	✓		✦				
Gumboro Disease	✓		✦				✓
Haemorragic Septicemia	✓	✓	✓	✓	✓	✓	✓
HPAI			✦		✓	✓	
Leishmaniosis	✦	✦	✦				
Leptospirosis			✦				
Listeriosis		✓					
Low Pathogenic AI			✦				
Lumpy Skin Disease			✦				
Marek's Disease			✦				✓
Mycoplasmosis (M. Gallisepticum)			✦				
Newcastle Disease	✓	✓	✦			✓	✓
Paratuberculosis	✓		✦				
Peste des Petits Ruminants	✓	✓	✓	✓	✓	✓	✓
Pullorum Disease			✦				✓
Q fever	✓		✓	✓			
Rabies	✓	✓	✦				✓
Salmonellosis (S. abortus ovis)	✓	✖	✦				
Sheep/goat Pox	✓	✓	✓	✓	✓	✓	✓
Surra (Trypanosoma evansi)	✓	✖	✦				✓
Theileriosis		✓	✦				
Vescicular Stomatitis			✦				

✓ Clinical Disease
✖ Confirmed Infection
✦ Suspected

PAKISTAN

Year	2011	2010	2009	2008	2007	2006	2005
Disease	👎	👎					
Anthrax			✓	✓	✓		
Avian Infectious Bronchitis			✓	✓			
Avian Infectious Laryngotracheitis					✓		
Avian Mycoplasmosis (M. synoviae)			✓	✓	✓		
Bluetongue			✓	✓	✓		
Bovine Babesiosis			✓	✓	✓		
Bovine Tuberculosis			✓	✓	✓		
Brucellosis (B. abortus)			✓	✓	✓		
Brucellosis (B. melitensis)			✓	✓	✓		
CCPP			✓	✓	✓	✓	✓
Crimean Congo Haemorragic fever			✓	✓	✓		
Dourine			✓	✓	✓		
FMD			✓	✓	✓	✓	✓
Fowl Cholera			✓	✓	✓		
Fowl Typhoid			✓	✓			
Gumboro Disease				✓	✓		
Haemorragic Septicemia			✓	✓	✓	✓	✓
HPAI				✓		✓	
Leptospirosis			✓	✓	✓		
Marek's Disease			✓	✓	✓		
Mycoplasmosis (M. Gallisepticum)			✓	✓	✓		
Newcastle Disease			✓	✓	✓		
Peste des Petits Ruminants			✓	✓	✓	✓	✓
Pullorum Disease			✓	✓	✓		
Rabies			✓	✓	✓		
Sheep/goat Pox			✓	✓	✓	✓	✓
Surra (Trypanosoma evansi)			✓	✓	✓		
Theileriosis			✓	✓	✓		
Trichomonosis			✓	✓	✓		
Trypanosomosis			✓	✓	✓		
Vescicular Stomatitis			✓	✓	✓		

👎 No information
✓ Clinical Disease
✘ Confirmed Infection
✦ Suspected

TADJIKISTAN

Year	2011	2010	2009	2008	2007	2006	2005
Disease	👎						
Anthrax		✓	✓	✓	✓	✓	✓
Bovine Brucellosis[$]							✓
Bovine Tuberculosis						✓	✓
Brucellosis (B. abortus)		✓	✓	✓	✓	✓	
Brucellosis (B. melitensis)		✓	✓	✓	✓	✓	
CCPP		✓	✓				
Fowl Cholera						✓	✓
Haemorragic Septicemia						✓	✓
Leptospirosis		✓	✓		✓	✓	✓
Newcastle Disease						✓	✓
Peste des Petits Ruminants			✓	✓	✓		
Rabies		✓	✓	✓	✓	✓	✓
Scrapie							✓
Sheep/goat Brucellosis*							✓
Sheep/goat Pox		✓	✓	✓	✓	✓	✓

👎 No information

[$] not differentiated

✓ Clinical Disease

✖ Confirmed Infection

✦ Suspected

TURKMENISTAN

Year	2011	2010	2009	2008	2007	2006	2005
Disease	👎		👎	👎	👎	👎	👎
American Foulbrood of honey bees		✓					
Avian Infectious Laryngotracheitis		✓					
Bovine Anaplasmosis		✓					
Brucellosis (B. abortus)		✖					
Brucellosis (B. melitensis)		✖					
Dourine		✓					
Echinococcosis/Hydatidosis		✓					
Fowl Typhoid		✓					
Leishmaniosis		✓					
Leptospirosis		✓					
Newcastle Disease		✓					
Pullorum Disease		✓					
Rabies		✓					
Surra (Trypanosoma evansi)		✦					
Varroosis of honey bees		✓					
Viral Haemorragic Septicemia		✓					

👎 No information
✓ Clinical Disease
✖ Confirmed Infection
✦ Suspected

UZBEKISTAN

Year	2011	2010	2009	2008	2007	2006	2005
Country	UZB	UZB	UZB	UZB	UZB	UZB	UZB
Disease	👎	👎	👎				
Actinomycosis					✓	✓	✓
Avian Tuberculosis							✓
Blackleg					✓	✓	✓
Bovine Brucellosis[$]							✓
Bovine Genital Campylobacteriosis				✓	✓	✓	✓
Bovine Tuberculosis				✓	✓	✓	✓
Brucellosis (B. abortus)				✓	✓	✓	
Brucellosis (B. melitensis)				✓	✓	✓	
Contageous Ophtalmia					✓	✓	✓
Distomatosis (liver fluke)					✓	✓	✓
Echinococcosis/Hydatidosis				✓	✓	✓	✓
Enterotoxaemia					✓	✓	✓
Enzootic Abortion (Chlamydiosis)				✓	✓	✓	✓
Enzootic Bovine Leukosis					✓	✓	✓
Equine Infectious Anemia					✓	✓	✓
Foot-rot					✓	✓	✓
Fowl Typhoid					✓	✓	✓
Intestinal Salmonella Infections					✓	✓	✓
Leishmaniosis				✓	✓	✓	✓
Other Avian Salmonellosis					✓	✓	✓
Ovine Epididymitis (B. ovis)				✓	✓	✓	✓
Ovine Pulmonary Adenomatosis							✓
Porcine Cysticercosis				✓	✓	✓	✓
Rabies				✓	✓	✓	✓
Salmonellosis (S. abortus ovis)				✓	✓	✓	✓
Sheep/goat Brucellosis*							✓
Theileriosis				✓	✓	✓	✓
Trichinellosis				✓	✓	✓	✓
Trichomonosis				✓	✓	✓	✓
Ulcerative Lymphangitis					✓	✓	
Vibrionic Dysentery					✓	✓	✓
Warble Infestation					✓	✓	✓

👎 No information
* not Brucella ovis
[$] not differentiated
✓ Clinical Disease
✘ Confirmed Infection
✦ Suspected

Annex 7: Missions performed/contracted

Sem	Expert	Date	Mission
II	G. Ferrari	Oct 2004	Turkmenistan, Tajikistan, Pakistan: meeting with project stakeholders
	G. Ferrari	Nov – Dec 2004	Tajikistan, Pakistan: meeting with project stakeholders; training of vet field units
	G. Ferrari	Jan – Feb 2005	Tajikistan, Pakistan, Afghanistan, Uzbekistan: project launching, planning of activities
	G. Ferrari	Feb 2005	Pakistan, Afghanistan: liaison with stakeholders and partners, planning of activities
	J. Lubroth	Jan 2005	Pakistan, Afghanistan: project implementation modalities and planning of activities
III	G. Ferrari	Apr 2005	Tajikistan, Afghanistan: project inception workshop and training on TADs
	Ferrari/Ciniglio	May – Jun 2005	Pakistan: follow up and monitoring mission
	Ferrari/Ciniglio	Jul 2005	Pakistan, Afghanistan: activities planning and Regional workshop on PDS
	G. Ferrari	Jun 2005	Turkmenistan: project negotiation and start-up
	S. Jamal	Jul 2005	Afghanistan: ELISA lab assessment
	S. Jamal	Aug 2005	Afghanistan: ELISA lab upgrade and training of technicians
	M. Hussain	Mar 2005	Pakistan: follow up and monitoring mission
	M. Hussain	Apr 2005	Tajikistan, Afghanistan: project inception workshop and training on TADs
	M. Hussain	May 2005	Tajikistan: follow up and monitoring mission
	M. Hussain	Jun – Jul 2005	Turkmenistan: project negotiation and start-up
	M. Hussain	Aug 2005	Afghanistan: follow up and monitoring mission
IV	G. Ferrari	Sep 2005	Uzbekistan, Turkmenistan: follow up and monitoring/negotiation mission
	G. Ferrari	Dec 2005	Pakistan, Afghanistan: trainings on ELISA & Epidemiology; planning HPAI activities
	G. Ferrari	Jan – Feb 2006	Pakistan, Afghanistan: follow up and monitoring mission
	M. Hussain	Sep 2005	Turkmenistan: project negotiation and start-up
	M. Hussain	Oct 2005	Pakistan: follow up and monitoring mission
V	G. Ferrari	Feb - Mar 2006	Turkmenistan, Uzbekistan: follow up and monitoring mission
	G. Ferrari	Mar - Apr 2006	Afghanistan, Uzbekistan: follow up and monitoring mission, CVOs meeting

	G. Ferrari	Jun 2006	Kazakhstan: attend HPAI meeting
	M. Hussain	Feb – Mar 2006	Turkmenistan, Uzbekistan: follow up and monitoring mission
	M. Hussain	Mar – Apr 2006	Afghanistan, Uzbekistan: follow up and monitoring mission, CVOs meeting
	M. Hussain	May 2006	Afghanistan, tripartite meeting
VI	G. Ferrari	Nov - Dec 2006	Pakistan, Afghanistan: monitoring mission, workshop on RP contingency planning
	M. Hussain	Jan 2007	Tajikistan: follow up and monitoring mission
	M. Hussain	Feb 2007	Afghanistan: ELISA training, monitoring mission
	Abu Bakar	Sep – Oct 2006	Tajikistan, Turkmenistan, Uzbekistan: ELISA training
	Abu Bakar	Feb 2007	Afghanistan: ELISA training
VII	G. Ferrari	Mar 2007	Tajikistan, Regional CVO Meeting
	G. Ferrari	Apr – May 2007	Afghanistan, Pakistan: follow up and monitoring mission
	G. Ferrari	Jul 2007	France, attending international conference
VIII	G. Ferrari	Nov 2007	London, UK, attend FAO/EU/OIE tripartite meeting on control of FMD
	G. Ferrari	Dec 2007	Kyrgyzstan, attending regional meeting
	Ferrari/Ciniglio	Jan 2008	Afghanistan and Pakistan: follow up and monitoring mission
	Ferrari/Ciniglio	Feb 2008	Turkmenistan: follow up and monitoring mission
	M. Hussain	Sep 2007	FAO HQ Italy
	M. Hussain	Sep 2007	FAO HQ Italy
	M. Hussain	Oct – Nov 2007	Turkmenistan: follow up and monitoring mission
	M. Hussain	Nov 2007	Turkey, Project meeting
IX	G. Ferrari	Mar 2008	IZS Brescia, Italy, discuss potential areas of collaboration
	Ferrari/Ciniglio	Mar – Apr 2008	Turkey, Regional CVOs meeting
	Ferrari/Ciniglio	May 2008	Turkey: follow up and monitoring mission, design surveillance on FMD & PPR
	G. Ferrari	Apr 2008	Uzbekistan: follow up and monitoring mission; assess progress of HPAI WB project
	G. Ferrari	Jun 2008	Kyrgyzstan: international conference
	G. Ferrari	May 2008	Iran, attend Regional workshop on HPAI Prevention and Control Strategies

	G. Ferrari	Jul 2008	Tajikistan, Uzbekistan: follow and monitoring up mission
	Ferrari/Lubroth	Sep 2008	Tajikistan: follow and monitoring up mission
	M. Hussain	Apr 2008	Turkmenistan: follow and monitoring up mission
	Hussain/Ciniglio	Jul 2008	Uzbekistan, Turkmenistan: follow up and monitoring mission
X	Ferrari/Lubroth	Sep 2008	Tajikistan: follow and monitoring up mission
	G. Ferrari	Oct 2008	Erice, Italy. EUFMD Conference on global control of FMD
	Ferrari/Ciniglio	Nov 2008	Iran. Regional meeting on FMD (PCP)
	Ferrari/Ciniglio	Dec 2008	IZS Brescia, Italy: training of laboratory staff, technical & administrative support
	Ferrari/Ciniglio	Jan – Feb 2009	Pakistan – Afghanistan: follow up and monitoring mission
	Hussain/Ciniglio	Oct 2008	Tajikistan, Turkmenistan: follow up and monitoring mission
	M. Hussain	Dec 2008	Afghanistan: follow up and monitoring mission
XI	Ferrari/Ciniglio	Jun 2009	Turkey, Project technical meeting
XII	G. Ferrari	Aug 2009	Tajikistan, follow up and monitoring mission, planning for PPR control actions
	Ferrari/Ciniglio	Oct 2009	Turkey, attend FMD PCP Progress meeting and Tripartite meeting
	J. Lubroth	Oct 2009	Turkey, attending FMD week
	G. Ferrari	Sep 2009	Slovenia, attend EUFMD Standing Technical Committee
	G. Ferrari	Dec 2009	Torino, Italy: attend international conference
	G. Ferrari	Jan 2010	FYRM: attend international conference
	Ferrari/Ciniglio	Feb 2010	Pakistan, attend a trilateral regional meeting on FMD
XIII	Ferrari/Ciniglio	Mar 2010	Turkey, Technical project meeting
	G. Ferrari	Apr 2010	Pakistan, follow up and monitoring mission; national meetings
	G. Ferrari	Apr 2010	Afghanistan, follow up and monitoring mission; national meetings
	G. Ferrari	Jul 2010	Tajikistan, follow up and monitoring mission; national meetings
	G. Ferrari	Jun 2010	France, attend international meeting on epidemiology
XIV	G. Ferrari	Oct 2010	Pakistan, FMD project formulation
	Ferrari/Ciniglio	Nov 2010	Turkey: project technical meeting

	Ferrari/Ciniglio	Dec 2010	Turkey: 2nd EUFMD PCP roadmap meeting
	Ferrari/Ciniglio/Kiani	Feb 2011	Afghanistan, Pakistan: follow up and monitoring mission
	Kiani/Shirazi	Feb – Mar 2011	Tajikistan: follow up and monitoring mission; training
XV	G. Ferrari	Mar 2011	Pakistan: follow up and monitoring mission
	Kiani/Shirazi	Apr – May 2011	Turkmenistan; follow up and monitoring mission; training
	Ferrari/de Leeuw	May 2011	Paris, France, attend the joint FAO/OIE meeting on FMD
	Ferrari/Guberti	May 2011	Tajikistan: training on veterinary epidemiology
	Kiani/Ciniglio	May 2011	Uzbekistan: follow up and monitoring mission
	Kiani/Shirazi	May – Jun 2011	Afghanistan: follow up and monitoring mission; training
	G. Ferrari	Jul 2011	Palermo, Italy, presentation on risk of introduction of TADs from Northern Africa
	Kiani/Shirazi	Jul – Aug 2011	Turkmenistan: follow up and monitoring mission; training
	V. Rosata	Sep – Oct 2010	Pakistan, assessment of dairy farming system for economic study on impact of FMD
	Shirazi	Feb 2011	Afghanistan, Laboratory survey

Annex 8: Personnel involved in the project

Name	Charge	Base	In	Out
Giancarlo Ferrari	Project Leader	FAO HQ	Sem 1	Still in
Umberto Ciniglio	Operation Clerk	FAO HQ	Sem 3	Still in
Manzoor Hussein	Regional Coordinator	PAK	Sem 2	Sem 14
Sanguinmorod Murvatulloev	National Coordinator	TAJ	Sem 2	Still in
Gulinoza Khazanova	Project Assistant	TAJ	Sem 2	Sem 10
Abdul Nawroz	National Coordinator	AFG	Sem 3	✞ Sem 15
Mariam Habib	ELISA Specialist	AFG	Sem 3	Still in
Mukhiddin Eranov	National Coordinator	UZB	Sem 3	Still in
Mohammedow Hudayberdy	National Coordinator	TUR	Sem 3	Still in
Mohammad Ahmad	National Coordinator	PAK	Sem 3	Still in
Masud Khan	Project Assistant	PAK	Sem 3	Still in
Aziz Kuvatbekov	Project Assistant	UZB	Sem 4	Sem 8
Tamim Latifzada	Project Assistant	AFG	Sem 4	Still in
Merdan Muhammedow	Project Assistant	TUR	Sem 5	Sem 8
Akmal Mahmudov	Project Assistant	UZB	Sem 8	Still in
Amanguly Tatov	National Epidemiologist	TUR	Sem 8	Still in
Sapar Ashyrov	Project Assistant	TUR	Sem 8	Sem 9
Ahmad Arash Aslami	Laboratory Specialist	AFG	Sem 8	Still in
Diana Chariyeva	Project Assistant	TUR	Sem 9	Sem 11
Kamila Yuldasheva	Project Assistant	TAJ	Sem 10	Still in
Rahat Ekeyev	Project Assistant	TUR	Sem 11	Still in
Ali Kiani	Regional TA	IRN	Sem 14	Still in

Sem = Semester

Annex 9: Trainings held

Date	Venue	Title	Attendance
11/2004	Tajikistan	Control of TADs for Field veterinarians	400
07/2005	Pakistan	Diseases investigation/Participatory Epidemiology	18
04/2005	Afghanistan	Control of TADs for Senior veterinarians	56
05-07/2005	Afghanistan	Control of TADs for Field veterinarians	168
03-05/2005	Tajikistan	Control of TADs for Field veterinarians	689
09/2005-02/2006	Afghanistan	Control of TADs for Field veterinarians	121
02/2006	Pakistan	Control of TADs for Field veterinarians	450
10/2005-02/2006	Uzbekistan	Control of TADs for Field veterinarians	630
12/2005	Pakistan	ELISA for RP, PPR, FMD, AHI (lab technicians)	9
12/2005	Pakistan	Veterinary Epidemiology (National Coordinators)	5
03-08/2006	Uzbekistan	Control of TADs for Field veterinarians	144
12/2006	Pakistan	RP Contingency Planning + TADInfo + Veterinary Epidemiology	75
11/2007	Turkey	Epidemiology of Infectious Diseases	29
06-08/08	Afghanistan	Control of TADs for Field veterinarians (6 sessions)	229
04-08/08	Tajikistan	Control of TADs for Field veterinarians (14 sessions)	288
08/2008	Turkmenistan	Control of TADs for Field veterinarians (2 sessions)	20
05/2008	Uzbekistan	Control of TADs for Field veterinarians (4 sessions)	120
03-06/08	Pakistan	Control of TADs for Field veterinarians (4 sessions)	412
12/2008	Italy	Training of trainers FMD ELISA (lab specialists)	6
09/2008-03/2009	Afghanistan	Control of TADs for Field veterinarians (4 sessions)	181
09-10/08	Turkmenistan	Control of TADs for Field veterinarians (4 sessions)	116
11-12/08	Uzbekistan	Control of TADs for Field veterinarians (4 sessions)	660
11/08-02/09	Pakistan	Control of TADs for Field veterinarians (4 sessions)	337
10-12/09	Tajikistan	Control of TADs for Field veterinarians (4 sessions)	80
03-10/09	Denmark	PCR for laboratory specialists	2
01/2011	Tajikistan	Use of Excel for epidemiologic data management	10
02/2011	Pakistan	FMD Outbreaks investigation (2 sessions)	41
05/2011	Tajikistan	Epidemiology	21
05/2011	Italy	FMD diagnostic techniques for lab specialists	3
07/2011	Turkmenistan	Training to laboratory technicians	3
08/2011	Afghanistan	Clinical recognition of FMD and PPR	284
04/2011	Turkmenistan	Clinical recognition of FMD and PPR	30

Annex 10. Log framework of the Project GTFS/INT/907/ITA "Controlling Transboundary Animal Diseases in Central Asian Countries"

Project Elements	Objectively key verifiable indicators	Means of Verification	Assumptions and Risks
Development Objective			
To increase food security by reducing livestock production losses caused by infectious disease.			Regional peace and security are maintained. Countries are committed to the project and continue with improvements to livestock disease control after termination.
Immediate Objectives			
1. To progress the verification of freedom from rinderpest, enabling countries to enter the OIE Pathway to Rinderpest Freedom.	- Message sent to OIE announcing provisional freedom of rinderpest (self declaration). - Five countries progressing along the OIE Pathway to Rinderpest Freedom.	OIE records.	No evidence of rinderpest will be found. If it is, the emphasis of the project will change to an emergency control program.
2. To better understand the impact of PPR, FMD and other major livestock diseases in the countries.	Information on the prevalence and impact of PPR, FMD and other major diseases in the five countries.	Project and national records collated.	Government infrastructures are in place or can be strengthened to enable disease surveillance and reporting to be undertaken.
3. To establish communication between the countries for collaborative disease control.	- Availability of national disease prevalence data within the region.	Quarterly disease information bulletins.	Commitment to sharing of information. Internet availability and reliability.
4. To establish national disease investigation, control and contingency planning for TADs.	- Information on national disease reporting and investigation. - National contingency plans for a rinderpest emergency. - Countries develop emergency funds not subject to fiscal diversions	National records of disease investigation and control activities. Documented rinderpest contingency plans. Project records. Existence of a fund	Government resources are sufficient to implement the outcomes of project activities. Donors are found to assist with maintaining activities after termination of the project.
Outputs			
1.1 Staff trained in disease investigation and participatory epidemiology methods.	- At least 10 staff trained in participatory epidemiology methods - Quality of information/investigations obtained from field work within 4 months from course training.	- Project records of field work. - Records of participant assessment. - Project records of implementation of field activities in each country	- Suitable staff available to undertake training and field work. - Appropriate staff selected by project management and governments.
Activities:			
1.1.1 Regional training course in TAD recognition, disease investigation and participatory epidemiology methods.			
1.1.2 Training of national staff in disease search for rinderpest			

Project Elements	Objectively key verifiable Indicators	Means of Verification	Assumptions and Risks
1.2 Evidence for clinical presence of, or freedom from, rinderpest.	- Data on disease search activities undertaken - Presence or absence of clinical rinderpest in each country is established_ - Countries submit dossiers to DIE for declaration of freedom from rinderpest disease	- Documented reports of disease search teams. - Examination of regular field reports_ - Project records. - DIE records	- Security situation allows project staff to access all areas. - Logistic support for project staff is available. - Countries reach point of at least declaring provisional freedom within the project period.
Activities			
1.21 Field surveillance for rinderpest— market monitoring and participatory disease search.			
1.2.2 Compilation of data from historical records and field surveys and presentation to 01E.			
1.3 **Serological evidence for presence or absence of rinderpest.**	- Laboratory testing of samples collected for serology in each country delivered according to time-scale required. - National laboratories undertake ELISA diagnostic testing by skilled staff_ - Programmes designed for each of the 5 countries - Samples tested for rinderpest antibody and analysed. - Countries submit dossiers to DIE for declaration of freedom from rinderpest infection.	- Laboratory reports of serological testing_ - Reports from national and regional epidemiologists of analysis of serology results. - Project reports_ - DIE records	- Countries accept arrangements for serological testing, which may involve samples being tested in another country. - Appropriately qualified staff available for training_ - Equipment and supplies delivered in a timely fashion_ - Sufficient knowledge of livestock distribution to permit survey design. - Cooperation of field veterinary staff and livestock owners is forthcoming_ - Laboratory capacity is adequate for the testing. Remark: The expectation is that only some countries will reach this point during the project period.
Activities			
1.3.1 Regional training for senior laboratory staff in [LISA methods			
1_3_2 Training of national staff and establishing testing in national labs.			
1.3.3 Design of rinderpest serosurveillance programmes			
1.3A Collection of samples for rinderpest serosurveillance.			
1.3.5 Serological testing for rinderpest antibodies.			
1.3.6 Compilation of serology data and presentation to 01E.			
2.1 Data on the prevalence and impact of PPR, FMD and other major diseases.	- Data available for examination. - Disease priorities for each country are established. - Improved understanding of the prevalence, distribution and impact of priority diseases. - All significant reports of TADs are followed	- Project records. - National reports to 01E. - National records of disease data available early and late in the	- If rinderpest occurs, project resources may be directed to rinderpest eradication. - Security situation and logistic support permit access to all areas_ - It is possible that concern about any one disease may direct project emphasis away

Project Elements	Objectively key verifiable indicators	Means of Verification	Assumptions and Risks
	up by investigation, - Samples are sent to regional and world reference laboratories_ - The impact of TADs in each country is understood_	project period. - Records and reports from reference laboratories.	from others. - A high level of disease activity could prevent project resources addressing all outbreaks_ - Samples collected are representative and of good quality. - A greater than expected prevalence of disease could divert staff from other field work, including PE activities.
Activities			
2_1_1 PE to determine TAD and other disease priorities.			
2.1.2 Epidemiological studies, serology and other testing for PPR, FMD and other diseases of concern.			
2_1_3 Investigation of outbreaks of TADs and other priority diseases_			
2.1.4 Testing of samples for HAD and PPR at regional and world reference laboratories.			
21.5 Assessment of impact of TAD diseases.			
3.1 Improved understanding by senior national staff of project objectives and **activities.**	- National veterinary staff support project activities and implement changes. - Workshops are conducted_	- Project records of national veterinary structuring and activity_ - Project records.	- Senior staff are responsive to objectives of the project. - National governments consent to travel of senior staff. - National governments consent to travel of junior staff.
Activities			
3.1.1 Regional workshop for senior national veterinary start			
31.2 Regional coordination workshops (2) for senior veterinary staff.			
3.2 Regional information on prevalence of FMD and PPR,	- Chief Veterinary Officers are aware of the disease situation in neighbouring countries. - Workshops are conducted. - Software is modified and available for use in the countries. - National disease data are stored on the database and national epidemiologists are able to analyse and interpret findings, - Information is available at the regional level. - Regional analysis of the prevalence, distribution and impact of FMD and PPR. - Bulletins are published and distributed.	- Interviews with CVOs_ - Project records_ - Demonstration of functioning software_ - Database records. - Interviews with staff from epidemiology units - OIE records. - Copies of bulletins,	- Project staff and CVOs fully participate in regional coordination meetings. - Mapping information is available for each country_ - Internet connectivity is available. - National authorities accept the need for transparency in providing national disease information. - National governments permit publication of information_

Project Elements	Objectively key verifiable indicators	Means of Verification	Assumptions **and Risks**
Activities			
31.1 Regional training of national epidemiologists on disease reporting and TADinfo software.			
311 Customise TADinfo to individual country requirements_			
31.3 Application of computerised database (TADinfo) to recording, analysis and transmission of disease data.			
31_4 Regional collation of data on FMD and PPR_			
31_5 Preparation of quarterly information bulletins			
4.1 Effective disease reporting and investigation system established in **each** country.	- CVOs have access to disease investigation information throughout their country. - At least 10 staff are effectively trained in information management of diseases. - Posters are prepared and distributed and can be seen in key points around the country. - Meetings are conducted. - Disease reporting systems are in place. - Disease outbreak reporting to OIE consistent with known disease activity in the countries_ - Emergency reporting is accomplished within 24 hours of confirmation (and after CVO approval). - Monthly reports regularly received by OIE within the two first weeks of each month_	- Routine and emergency disease reports available for examination. - Examination of TADinfo records_ - Examination of trainee assessment records_ - Interviews with livestock owners. - Examination of national records_ - DIE and project records.	- Logistics and communications in each country facilitate transmission of data to national headquarters. - Government infrastructure is well enough developed to identify the people for training. - Livestock owners have the interest to become informed about livestock diseases. - Communications within country enable reports from field staff to be sent to headquarters. - Countries must accept the principle of transparency and the value of building credibility by international reporting of their livestock disease situation_
Activities			
4_1_1 Training for disease reporting for field staff			
4_11 Preparation of posters and undertaking farmer meetings for disease awareness			
4.1.3 Development and application of national disease reporting systems for TADs			
4.1A Disease occurrence reports sent to 01E_			
4.2 Contingency plans prepared for rinderpest emergencies in each country.	- Countries are equipped to deal with a rinderpest emergency (personnel matched with required activities, funding, transportation contingencies, etc.). - Specific legislation I regulation exist. - Training course conducted_ - Contingency plans are prepared. - Project budgeting provides for funds during for the period of project implementation.	- Examination of national contingency pJans. - Project records - Plans available for critical review, - Financial records for the project. - Field exercises (simulations) planned	- Countries are able to implement the needs (which may include legal reform) during the project period. - The Donor consents to the annual carry over of unspent contingency funds.

Project Elements	Objectively key verifiable indicators	Means of Verification	Assumptions and Risks
Activities			
4.2.1Regional training in preparation of contingency plans			
4.2.2 Preparation of national contingency plans for a rinderpest emergency			
4.2.3 Establishment of regional contingency fund for TAD emergencies.			
4.3 Regional quality assurance capability for FMD and PPR vaccines.	- Countries refer to the Project Leader and Regional Epidemiologist for guidance when purchasing vaccines. - Procedures are documented and made available to national authorities. - Government able to process tenders.	- Project records. - Critical review of documentation	- Countries accept the need for stringent quality specifications when purchasing vaccine supplies. - National authorities recognize the need for quality assurance and thus support development / legislation in the procedures.
Activities			
4.3.1 Establish procedures for auditing quality control and quality assurance procedures for FMD and PPR vaccine production.			
4.4 Priorities identified for disease control programmes and applied research on regional problems.	- Post-project activities in each country are clearly prioritised and identified. - Donor support for new projects drafted. - Technically appropriate national strategic plans developed in all 5 countries. - Research needs identified and documented.	- Project records. - Documented project proposals - Donor funding agreements. - Critical review of national plans. - Critical review of documentation. - Critical review of documentation.	- Progress throughout the project has been sufficient to justify continued support. - National authorities committed to long term strategy planning for disease control
Activities			
4.4.1 Assist national authorities in the development of disease control strategic plans.			
4.4.2 Identify needs for continuing epidemiological studies for regional disease control.			
4.4.3 Identify needs and donors for continuing support and prepare project proposals.			

Annex 11: List of meetings and workshops held

			Countries Represented								
Date	**Venue**	**Meeting**	**AF**	**PK**	**TJ**	**UZ**	**TK**	**TU**	**KY**	**KZ**	**IR**
Apr 2005	Dushanbe, Tajikistan	1st CVO Regional Meeting	✓	✓	✓	✓	✓		✓	✓	✓
Mar 2006	Dushanbe, Tajikistan	2nd CVO Regional Meeting	✓	✓	✓	✓	✓		✓	✓	✓
Mar 2007	Dushanbe, Tajikistan	3rd CVO Regional Meeting	✓	✓	✓	✓	✓		✓	✓	✓
Apr 2008	Ankara, Turkey	4th CVO Regional Meeting	✓	✓	✓	✓	✓		✓	✓	
Nov 2008	Shiraz, Iran	1st Regional FMD Road Map Meeting[10]	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oct 2009	Istanbul, Turkey	2nd Regional FMD Road Map Meeting	✓	✓	✓	✓	✓		✓	✓	
May 2010	Istanbul, Turkey	3rd Regional FMD Road Map Meeting	✓	✓	✓	✓	✓	✓	✓	✓	
July 2005	Islamabad, Pakistan	2nd Regional Project Workshop (PDS)	✓	✓	✓	✓			✓		
Dec 2005	Islamabad, Pakistan	3rd Regional Project Workshop (ELISA)	✓	✓	✓	✓	✓				
Nov 2006	Lahore, Pakistan	4th Regional Project Workshop (contingency plan)	✓	✓	✓	✓	✓				
May 2006	Kabul, Afghanistan	Phase I Tripartite Meeting	✓	✓	✓						
Sep 2007	Rome, Italy	Phase II Tripartite Meeting	✓	✓	✓	✓	✓				
Oct 2009	Islamabad, Pakistan	Phase III Tripartite Meeting	✓	✓	✓	✓	✓		✓	✓	
May 2008	Ankara, Turkey	Project Technical Meeting	✓	✓	✓	✓	✓				
Jun 2009	Ankara, Turkey	Project Technical Meeting	✓	✓	✓	✓	✓				
Jun 2010	Ankara, Turkey	Project Technical Meeting	✓	✓	✓	✓	✓				

[10] Russia, Syria, Iraq, Azerbaijan, Armenia, and Georgia also attended the meeting

Annex 12: Participatory Disease Search activities

Date	Country	Provinces	Villages	Farmers
08/2005	Afghanistan	Kabul	23	171
09/2005-02/2006	Afghanistan	Kunduz, Tahkar, Balkh	50	433
09/2005-02/2006	Tajikistan	Sogd, DRD, Kathlon	125	1267
11/2005-02/2006	Uzbekistan	Bukhara, Naldy, Samarkand, Djizak, Kashkaoarya	150	4505
03-08/2005	Afghanistan	Bamyan, Gazhni, Nangharara	71	531
03-08/2005	Tajikistan	Kathon	152	1600
11/2006-02/2007	Tajikistan	DRD, GBAO	90	1075
11-12/2006	Uzbekistan	Namangan	20	634
12/2006	Uzbekistan	Andijan	20	436
02/2007	Uzbekistan	Ferghana	22	550

Annex 13: Specific studies designed and carried out

Start	Title	Country
Sem 3	Comparison of aerosol and oil adjuvant HS vaccine	Pakistan
Sem 4	Duration of immunity and protective efficacy of PPR vaccine	Pakistan / Afghanistan
Sem 4	Isolation and identification of PPR virus	Pakistan
Sem 4	Immunogenicity and protective efficacy of live HS vaccine in buffalo and cattle	Pakistan
Sem 5	FMD virus identification from Landhi colonies	Pakistan

Sem = Semester

Annex 14: Review of outputs and activities of the project, as stated in its logframe

Outputs

1.1 Staff able to undertake disease investigation and participatory epidemiology studies

A regional workshop and a series of national workshops will be conducted. These will train staff in the recognition of specific diseases and the process of participatory epidemiology, thus giving them the capacity to undertake disease investigation and surveillance. Field staff will improve their skills in interacting with livestock owners and traders and include community perspectives in determining the priorities for disease investigation initiatives.

Related activities

1.1.1 Regional training in rinderpest and participatory epidemiology methods

An estimated two participants from each of the five project countries and one each from Iran, Kazakhstan and Kyrgyzstan will attend a two-week course to be conducted by the Project Leader and an international consultant, in one of the countries. The course (Y1M6) will cover:

- clinical recognition of rinderpest, FMD and PPR and epidemiology of the diseases; - methods for participatory epidemiology and participatory disease searching; - collection and dispatch of specimens for laboratory testing. Staff attending will include the Regional Epidemiologist, the five National Epidemiologists and other senior national staff to be determined after inception.

1.1.2 Training national staff in disease recognition and participatory epidemiology

In each country, national staff will undergo a training course of two weeks (after Y1M6 and again estimated for Y2M4), conducted by the Project Leader, the Regional Epidemiologist (in Afghanistan) and the National Epidemiologist for that country. The course will cover the same subjects as in 1.1.1 but will be designed to address the specific needs of field staff undertaking the activities. The numbers of staff to be trained will be determined after project inception and would likely require more than one national training course to be conducted in any one country. Backstopping mission to reinforce participatory approaches and training in epidemiology is foreseen.

Evaluators' remarks: These activities were done as planned (see annexes 9 and 12 to the evaluation report). Especially in Pakistan team came across national veterinary staff referring to participatory epidemiology as an important tool, which they now routinely apply in their work. In Tajikistan it was the first time vets have been exposed to an epidemiological training, some of the staff trained was not even able to switch a computer on, or to work with simple excel spreadsheets. It was necessary to offer also a training on the use of PC and most common software.

1.2 Evidence for clinical presence of, or freedom from, rinderpest

Unless countries have neither had disease nor vaccinated within the past five years, a structured surveillance for rinderpest is a requirement for countries to apply for recognition as free from rinderpest disease. It is expected that as an output from the project, all countries will be able to meet this requirement.

Related activities

1.2.1 Field surveillance for rinderpest – market monitoring and participatory disease search

Surveillance for clinical evidence of rinderpest will be undertaken in a structured manner, to meet the requirements for the OIE Pathway[4]. This work will often be conducted concurrently with the broader participatory epidemiology activities of 2.1.1.

1.2.2 Compilation of data from field surveys and presentation to OIE

Data from the field will be used in development of dossiers for submission to OIE for progression along the Pathway to Rinderpest Freedom. Progress will be different in the different countries. Pakistan has already declared provisional freedom from the disease (February 2003). Other countries should aim to do this at such time during the project that sufficient data has been collected and appropriate reporting structures are in place.

Evaluators' remark: Fully complied with: all countries declared provisional freedom of rinderpest disease and received certificates of freedom from rinderpest infection. Also the observer status countries were assisted to understand the process and comply with the requirements, especially Kyrgyzstan. Results of field survey have discussed during CVOs and tripartite meetings before being submitted to the OIE.

1.3 Serological evidence for presence or absence of rinderpest

Serosurveillance is an essential process for countries to progress from freedom from rinderpest *disease* to freedom from rinderpest *infection*. Some countries will be in this phase during the period of project implementation. Other countries will not reach this point during the project period. However, preliminary serological surveillance may still be conducted toobtain an indication of the serological status of the whole or part of a country. The details of such surveillance to be conducted will be determined during project implementation, on the basis of information collected.

Related activities

1.3.1 Regional training for senior laboratory staff in ELISA methods

Estimated two laboratory staff from each country will receive two weeks of training (Y1M10) in ELISA methods, for the detection of rinderpest/PPR antibodies and antigen and for FMD antigen detection. An international consultant from a recognised reference laboratory or the FAO/IAEA Joint Division will be contracted for the three week mission. Backstopping mission to reinforce laboratory training is foreseen (mid-Y3).

1.3.2 Training of national staff and establishing testing in national laboratories

Laboratory equipment will be supplied and commissioned as required (Tajikistan, Uzbekistan, Turkmenistan), additional national laboratory staff trained and ELISA testing capability established in national laboratories. This in-country training will be undertaken by a TCDC consultant (fourth quarter Y1 and Y2M8), recruited if possible from one of the project countries[5].

1.3.3 Design of rinderpest serosurveillance program

Two rounds of serosurveillance need be undertaken at such time as is appropriate, in order to submit evidence of freedom from rinderpest infection. This must be designed as a stratified, random survey to be capable of detecting rinderpest at a prevalence of 5%, with a confidence of 95%, as indicated by OIE requirements. The exact design will vary for each country.

1.3.4 Collection of samples for rinderpest serosurveillance

Sampling will be conducted by teams comprising project staff, government staff and

district (VFU) veterinarians. Two rounds of structured sampling, according to the design described in Activity 1.3.3 above, will be conducted. Other sampling may be undertaken beforehand, to define areas of concern and clarify vaccination status.

1.3.5 Serological testing for rinderpest antibodies

Samples will be tested by ELISA in national laboratories or, if the capacity is not available, in other laboratories within project countries.

1.3.6 Compilation of serology data and presentation to OIE

Serological data will be compiled together with other data on disease search, border integrity and national reporting capabilities, for preparation of a dossier for submission to OIE for declaration of freedom from rinderpest infection.

***Evaluators' remarks*:** All these activities were executed as planned. For most countries this was the first introduction of ELISA technology and the training was essential. In some cases the trainees were only FAO staff (e.g. in Afghanistan) and unfortunately afterwards not available for the government laboratory. In consecutive trainings more government lab technicians were included in the training. The project assisted the countries with this mandatory rinderpest sero-surveillance for as long as it was compulsory. The design of sero-surveillance requires a fair amount of statistics and it remains to be seen whether anybody in especially Turkmenistan, Uzbekistan and Tajikistan, where blanket testing has always been the routine (on paper) has managed to grasp the intricacies of these procedures. The project did produce a publication on this issue, which was also translated in Russian.

2.1 Data on the prevalence and impact of PPR, FMD and other major diseases

The analysis of national livestock disease data is essential for national disease control and contingency planning. Such analysis will be conducted in conjunction with collation on a regional basis (3.2 below), providing a preliminary indication of the importance of the diseases.

Related activities

2.1.1 Participatory epidemiology to determine TAD and other disease priorities

Project teams, comprising generally the National Epidemiologist, appropriate national or regional district government veterinary staff and a veterinarian from the district in which the study is being undertaken, will undertake visits to villages or other groups of people involved in livestock production (for example, groups of traders). They will discuss, in a participatory forum, the issues that affect them in livestock production, disease problems and specifically transboundary disease problems. Emphasis will be placed on engaging women participants. This will be an ongoing activity to be scheduled by national project participants, to be undertaken until a clear picture of the general disease situation is established. The activity will then be replaced by specific disease search work

2.1.2 Epidemiological studies, serology and other testing for PPR, FMD and other diseases of concern

Activities described under 2.1.1 will indicate the possible prevalence, distribution and impact of specific diseases, including the transboundary diseases of particular concern to the project. Epidemiological studies will then be designed to verify and quantify the preliminary data. Time, budget and staff availability constraints will limit these studies to key diseases of concern.

2.1.3 Investigation of outbreaks of TADs and other priority diseases

Reported occurrences of transboundary and other important diseases will be investigated by project participants to undertake diagnosis and recommend control activities. This will include testing of specimens at national laboratories, to the extent to which they are capable.

2.1.4 Testing of samples for FMD and PPR at regional and world reference laboratories

Where a national capability is not available and in any event to enable global comparative studies to be undertaken, specimens from epidemiologically significant outbreaks of disease will be forwarded to regional and world reference laboratories for further investigation.

2.1.5 Assessment of impact of TAD diseases

From the results of field and laboratory studies undertaken within the project, assessments will be made of the national and regional impacts of the major transboundary diseases, with the expected emphasis being placed on FMD and PPR. This will lead to the activity 4.4.1.

Evaluators' remarks: it is hard to establish to what extent this has been achieved. It is evident that the national coordinators did extensively go to the field and interacted with local veterinarians from the districts, but more for the sero-surveillance than for this type of close interaction with farmers and especially female farmers. In Pakistan the economic impact assessment started in 2011 will definitely have brought the project staff and government veterinary officials in close contact with farmers.

In some countries there was sufficient transparency and desire to come to a closer understanding of the prevalence, incidence and occurrence of TADs, in others this was not the case. In some cases samples could be sent to international reference laboratories, in others further analyses of samples was not appreciated. The impact assessment work has been limited to the impact of FMD on milk production in Pakistan, in other countries

3.1 Improved understanding by senior national staff of project objectives and activities

A workshop in the first year and annual coordination meetings in the following two years will serve to keep chief veterinary officers and their senior staff briefed about project objectives and progress in meeting them, in their own and other countries. The meetings will give these senior staff an increased awareness of international veterinary issues and assist them in bringing their services into conformity with international norms.

Related activities:

3.1.1 Regional inception workshops for senior veterinary staff

National chief veterinary officers[9] and other senior staff will meet in a regional workshop to discuss the objectives of the project and their expectations from it, early in the first year of the project (planned for Y1M5 or M6). They will address the needs for rinderpest verification of freedom and the more general needs for disease investigation, international reporting, the requirements of national veterinary services and principles for preventing and controlling transboundary diseases.

The workshop will also address the requirements of national livestock disease investigation, control and reporting for international trade. While it is not an expectation that the disease status of the countries involved will improve substantially during the project period, such as to permit expanded trade opportunities, this is likely to be a reasonable long-term objective of at least some of the countries. The current international livestock trade environment will be discussed, including the role of the World Trade

Organisation and OIE and the need for development of transparency and quality standards. Prior to the workshop above, the Project Leader, will have visited the Region (Y1M3) and engaged the Directors of the veterinary services to identify apt personnel for the positions stated and planned a regional meeting to plan and create an inventory/assessment of veterinary infrastructures related to surveillance, control, and statistics.

3.1.2 Regional coordination workshops (2) for senior veterinary staff

Chief veterinary officers and other senior staff will conduct a regional meeting in years two and three, in different countries, to monitor progress in the project and coordinate activities in the different countries. Monitoring inputs from professionals from institutes, such as the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise, should be accommodated at this time.

Evaluators' remarks: All the planned meetings were held. Especially the regional coordination workshops developed into a conducive environment, in which veterinary professionals without the political pressure and inhibitions could discuss the issues at hand. In none of the countries the trade issues of TADs were an issue as none of them had official export, except Pakistan some semi-official export to UAEs. It is unlikely that this was in compliance with the WTO-SPS agreement requirements. The project had sufficient flexibility to respond to country specific issues and indeed assisted through training in e.g. Tajikistan in better brucellosis diagnostics. The 3 "observer" status countries showed an increasing interest in the regional information exchange, but this has not led to a change in transparency due to heavy political pressure at home (except for Tajikistan, which declared PPR and CCPP and recently a case of FMD).

3.2 Regional information on prevalence of FMD and PPR

Collection, analysis and distribution of data on the occurrence of FMD and PPR will be an essential part of assisting in the development of national and regional strategies for disease control and contingency planning and for preparing proposals for continuing donor support. ***C3.2.1 Regional training for staff in TADinfo*** The Regional Epidemiologist and four National Epidemiologists will undergo training for two weeks in TADinfo database application and management (Y2M4). If accepted at the national level, this will form the basis of a national animal disease database and by having a uniform system regionally will assist in collation and analysis of information.

Related activities:

3.2.2 Customise TADinfo to individual country requirements

The TADinfo database will be customised for each country that elects to adopt it. This will be supervised by FAO Headquarters staff.

3.2.3 Application of computerised database (TADinfo) to recording, analysis and transmission of disease data

In association with Activity 4.1.3, regular and special disease reports received from the field will be entered into the database and analysed to assist in the determination of the prevalence, distribution and impact of specific diseases.

3.2.4 Regional collation of data on FMD and PPR

The Project Leader and Regional Epidemiologist will collate and analyse national data at the regional level to assist in coordination of transboundary disease control.

3.2.5 Preparation of quarterly information bulletins

Bulletins will be prepared quarterly by the Project Leader but with input from other sources, including the Regional Epidemiologist, the National Epidemiologists and FAO Headquarters staff. It will provide information on the regional situation with TADs but will also include information on global issues concerning TADs and other issues of interest to national veterinary authorities.

Evaluators' remarks: TAD-info was not introduced in the participating countries by this programme, probably because none of these countries wanted and needed it. Most use simple spreadsheets or database programmes for data stoage. In Afghanistan and Kyrgyzstan other FAO programmes introduced this programme without success. It has not been adopted. Each country prepared with the assistance of the project a continegency plan for rinderpest emergencies. It remains however to be seen whether the national veterinary services would have been able to implement such a plan. No simulation exercises could be held and it is not clear whether countries kept e.g. vaccine stocks for ring vaccination or funds to pay for an active control programme in case of an outbreak.

4.1 Effective disease reporting and investigation system established in each country

It is known that the national disease reporting capability in some of the project countries is inadequate and the project will endeavour to redress deficiencies. The FAO/AGAH EMPRES Group has developed a computer database for the recording, analysis and transmission of information on transboundary disease occurrences and this will be introduced as appropriate in each country, enabling improved communication within and between countries.

Related activities:

4.1.1 Training for disease reporting for field staff

Field staff will be trained to provide regular (monthly) reports and special reports in the event of an outbreak of disease in their area of responsibility. The level of training will vary depending on the level of staff responsibility. Training of staff in districts, including private veterinarians in VFUs, will be undertaken in conjunction with other training in disease recognition and together with other project-supported field activities. Monitoring inputs from professionals from institutes, such as the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise, should be accommodated at this time.

4.1.2 Preparation of posters and undertaking farmer meetings for disease awareness

National staff, with assistance from the Project Leader and Regional Epidemiologist as required, will prepare posters and development other awareness material as appropriate in the country (radio, TV broadcasts, press releases). This will be directed to raising community awareness to the threat of transboundary diseases and giving information on how to contact government veterinary authorities in the event of outbreaks of disease.

4.1.3 Development and application of national disease reporting systems for TADs

A national disease reporting system will be introduced or improved as required. Reporting will be to the national veterinary authority, with the national epidemiologist being responsible for collating data on behalf of the chief veterinary officer.

The extent to which it is possible and desirable to decentralize the use of the TADinfo database within a country will need to be determined. In some countries (particularly Pakistan) it should be possible to apply it at the regional level. However, a standard

reporting system will in any event be developed, in collaboration with the chief veterinary officer, to meet national needs but to also be consistent with the requirements of TADinfo (including geo-referencing and quantitative data), with countries being encouraged to apply TADinfo at least at the central level.

4.1.4 Disease occurrence reports to OIE

Reports of occurrences of list A diseases and periodic reports of the national disease situation will be prepared for submission to OIE, through the Chief Veterinary Officer on a monthly basis or within 24 hours if emergency outbreaks are reported.

Evaluators' remarks: Except for Pakistan and Afghanistan and Tajikistan to a certain extent, countries have been extremely reluctant to report any outbreaks of TADs to the OIE. In most cases they also did not officially notify their neighbours, although maybe on personal title. The team saw some posters and press releases, but it was hard to establish whether there had been radio and TV broadcasts. Field staff received training on reporting during the training sessions on e.g. participatory epidemiology. In most cases however, in spite of the efforts made by the project, field staff don't report regularly on disease occurrence. This is however beyond the control of the project, unless there would have been put a monetary compensation for timely reporting in place, which would have had no sustainability. The fact that TAD-info was not introduced in the participating countries contributed to this still poor reporting habit.

4.2 Contingency plans prepared for rinderpest emergencies in each country

An essential requirement for national veterinary authorities is to have emergency preparedness plans for the major transboundary diseases that are a threat to them. The most immediate need, in an environment in which rinderpest eradication is proceeding well and any occurrence must be rapidly and effectively contained, is a contingency plan for this disease. Experience has shown that the most effective means of introducing contingency planning as a discipline is to apply it to an immediate need. National veterinary authorities can then adopt the plan to other diseases. To successfully complete one such plan is an appropriate expectation as an output from this project.

Related activities:

4.2.1Regional training in preparation of contingency plans

The Regional Epidemiologist and National Epidemiologists will receive training in a regional workshop for two weeks on the preparation of contingency plans and provided with documentation available from FAO EMPRES, translated into Russian and other languages as necessary, using project resources.

4.2.2 Preparation of national contingency plans for a rinderpest emergency

National epidemiologists, in collaboration with senior national veterinary staff and with assistance from the Project Leader and Regional Epidemiologist, will prepare rinderpest contingency plans, identifying in the process key deficiencies within their system that need to be addressed.

4.2.3 Establishment of regional contingency fund for TAD emergencies

Contingency preparations will be made at the regional level for assistance with the control of a major TAD incident. In particular, the needs of a country that experiences an outbreak of rinderpest will be addressed. Provision is made in the call for funds, for $200,000 of Year 3 funding to be made available at the start of the project. If it is needed in the course of the project period for an emergency, adjustments will need to be made to

subsequent work plans.

Evaluators remarks: The contingency plans seen were adequate, but fairly generic. The contingency fund was never established, but would have been necessary in case of an outbreak. Once HPAI appeared in the region, the project helped the countries in the preparation of emergency plans. The project did not assist countries with the development of a FMD and/or PPR contingency plan, which would be a good test case to see how much the national staff learned from the training on contingency plans. If countries full-heartedly participate in the PCP approach, the PCP could be considered a control strategy.

4.3 Regional quality assurance capability for FMD and PPR vaccines

Many national veterinary authorities do not have the expertise available to them, to evaluate the quality of vaccines and are therefore at risk of purchasing on the basis of price, without consideration of quality. The project will assist in this.

4.3.1 Establish procedures for auditing quality control and quality assurance procedures for FMD and PPR vaccine production

The basis of this will be provision of expertise to assist national governments in preparing specifications for purchase and evaluating tenders for supply of vaccine, outlining the most important requirements. Desktop audits of vaccine production protocols and batch data will be evaluated. Where necessary and justifiable, on-site audits will be arranged of vaccine production plants. While the emphasis will be placed on manufacturers' quality control and assurance procedures of the vaccines, limited evaluation of vaccine will be conducted when deemed necessary. This may include infectivity titration of rinderpest/PPR vaccine and immunogenicity testing (but not potency testing) of FMD vaccine.

Evaluators' remarks: in most countries vaccines are bought through the government's procurement system, in which the respective ministries of finance play a lead role. The problem of these procedures is indeed that the cheapest offerer wins and that it is hard, especially in times of an outbreak emergency, to time the purchase of the right type of vaccine. The project has clearly shown the countries which strains of especially FMD are circulating and given advice on the right vaccine strains. It remains however difficult for veterinary services to convince their ministries of finance to procure the right vaccine from the right manufacturer. In cases where there is still a national vaccine production capability often two measures are applied for the evaluation of vaccine quality and potency for as far this can be tested. The project at least made an effort to bring these aspects to the foreground, but to really influence the outcome was beyond the mandate of the project.

4.4 Priorities identified for disease control programs and applied research on regional problems

Project data will be analysed and used to provide national veterinary authorities with advice on disease control planning and needs for research. It is expected that this project alone will be insufficient to ensure continuation of a robust and sustainable government veterinary authority in each country. In some of the countries, it will be insufficient to assist them with achieving verification of freedom from rinderpest infection. Assistance from the project will enable proposals to be developed for continued donor funding.

Related activities:

4.4.1 Assist national authorities in the development of disease control strategic plans

Such assistance will be provided as required by the Project Leader, Regional Epidemiologist and other project staff. While the project is more directed to preliminary activities involved with staff capacity building and epidemiological studies, the development of strategic disease control plans is an appropriate extension of this.

4.4.2 Identify needs for continuing epidemiological studies for regional disease control

There will inevitably be important questions left unanswered at the completion of the project that should be subsequently addressed. Project staff should identify those that are considered to be most important, especially at the regional level.

4.4.3 Identify needs and donors for continuing support and prepare proposals for priority projects

The Project Leader, in collaboration with the Regional Epidemiologist and senior national veterinary staff, will identify the needs for additional donor support for transboundary disease control, following project termination. Project proposals will be developed and attempts made to find support within the international donor community.

Evaluators' remarks: It seems that most countries still do not see the importance of a regional control strategies for these TADs, assuming that they are free and the danger comes from the neighbours. Apart from the FMD PCP approach, which has a regional dimension, there was no mention of national disease control strategic plans having been developed. Almost all countries, except Pakistan, rigidly adhere unfortunately to old-time disease control strategies and methodologies and change is only happening slowly. Except for Pakistan, where a USAID funded FMD project continues where this project phases out, there are so far no other projects in the pipeline to continue the activities. It is obvious that the project in its last months will work on this issue.