WORKING DOCUMENT

Mediterranean Animal Health Network

REMESA

Action Plan
July 2009-June 2010

FAO - Centre Régional
de Santé Animale
pour l'Afrique du Nord
(CRSA-AN)

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Abbreviations and Acronyms

AGAH	Animal Health Services - FAO
AI	Avian Influenza
ALIVE	African Livestock Development Programme
CPC	Committee Conjoint Permanent
CU	Coordination Unit of REMESA (FAO/OIE RACH-NA)
ECTAD	Emergency Centre for Transboundary Animal Diseases - FAO
FAO	Food and Agriculture Organization of the United Nations
FAOR	FAO Representation
FPMIS	Field Program Management Information System
GF-TADs	Global Framework Progressive Control Transboundary Animal Diseases
HPAI	Highly Pathogenic Avian Influenza
IBAR	Inter-African Bureau for Animal Resources
MAHN	Mediterranean Animal Health Network (REMESA)
OFFLU	Joint OIE/FAO Worldwide Scientific Network for the Control of AI
OIE	International Office of Epizootics / World Animal Health Organisation
PDS	Participatory Disease Surveillance Systems
RAHC-NA	Regional Animal Health Centre for North Africa - FAO
REC	Regional Economic Communities
RECOMSA	Animal Health Communication Network
REMESA	Réseau Meditannéen de Santé Animale (MAHN)
REPIVET	Veterinary Epidemiosurveillance Network
TADs	Transboundary Animal Diseases
TCE	Emergency Operations and Rehabilitation Division - FAO
TCEO	Emergency Operations Service - FAO
TCP	Technical Cooperation Programme - FAO
ToR	Terms of Reference
UMA	Arab Magreb Union
UN	United Nations
WAHIS	World Animal Health Information System
WHO	World Health Organization

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1. Introduction

The livestock sector plays a key role in food security in North Africa. Its strategic value lies in its importance as a source of protein and income for large sectors of the population, especially the more vulnerable communities. Transboundary animal diseases and zoonoses are considered to be the greatest impediment to economic animal agriculture in the region. Under the prevailing production systems in the region, characterized by extensive management systems (nomadism or transhumance), these diseases are usually spread by trade-associated livestock movements and importation from contaminated countries, as it has been shown on several occasions. The risk is also high for Southern European countries that have historically maintained intense commercial relationships with the North African countries.

Coordination and support at regional level is essential for ensuring harmonization and consistency of approaches, efficient use of resources, and sharing of information among countries of the same region. Countries in the region are more convinced that controlling contagious livestock diseases at only a national level is bound to fail primarily because of the extensive movement of pastoral herds. It is considered necessary to adopt a regional approach to solve regional animal diseases problems. A regional approach for understanding determinants of disease entry risks and pathways for propagation in the region, combined with harmonization of disease control strategies is the only way to combat transboundary animal and zoonotic diseases in the region. This strategy prevents catastrophic losses caused by a given disease and paves the way to a cost-effective implementation of harmonized control measures, leading to progressive disease control, increase of animal production and opening of new markets for exporting animals and animal products.

Regional coordination and networking are an essential component of the FAO/OIE's GF-TADs (Global Framework for the Progressive Control of Transboundary Animal Diseases). Both, OIE and FAO have expressed the need for regions to develop networks which would facilitate epidemiosurveillance and intelligence of the TADs and thus improve prevention and control activities. This approach harmonizes national priorities in disease prevention and control efforts and builds synergy and efficiency in terms of epidemiological expertise and consequently global efficacy of the overall animal diseases prevention and control.

FAO is promoting the regional coordination of animal health programmes in North Africa through the Regional Animal Health Centre for North Africa (RAHC-NA) established since May 2007 in the FAO Sub-regional Office in Tunis (SNEA). OIE has recently joined the RAHC-NA, in May 2009, thus strengthening the role and capacities of animal health in the region. The FAO programme in the region is currently supported through donors funding, particularly the Spanish Cooperation (AECID), the CIDA and SIDA. As a specialized agency of the United Nations, FAO is in a privileged position to facilitate dialogue, cooperation and exchange of information between the countries of North Africa and between those and their neighbours in Southern Europe.

The RAHC-NA has established a series of coordination mechanisms in the region out of which the twice-a-year regional coordination meetings have become a main event for cross-border discussion and information exchange between the veterinary services of the region. The chief veterinary officers (CVOs), or their representatives, from all countries in the region together with the UMA or EU, FAO and OIE participate regularly in these meetings.

During the Second Regional Coordination Meeting hosted by the Spanish Ministry of Agriculture in Avila, Spain, from 23 to 25 of April 2008, the participants from North Africa and South Europe were unanimous in agreeing that closer ties between countries to strengthen regional cooperation in animal health on both shores of the Mediterranean will be most useful. They welcomed the initiative launched by FAO/RAHC-NA to establish a Mediterranean Euro-Maghreb Animal Health Network (MAHN in English or REMESA in French/Spanish) involving the Maghreb countries and those of the Southern Europe. This network would promote the cross-border cooperation in animal health by facilitating the coordination of the strategies for the prevention and control of transboundary animal diseases, the joint efforts to strengthen the capacities of the veterinary services, the sharing of experiences and the regular exchange of information on the zoo-sanitary situation. The network would also facilitate the access to information concerning the ongoing animal health projects/activities in the region and the available regional resources for disease prevention and control. Such a network would have benefits for all partners in the region by promoting the Euro-Mediterranean partnership initiatives.

A feasibility study was launched by FAO with the support of the Spanish Cooperation to assess the relevance of this kind of network (REMESA) and identify the modalities and the necessary support for its establishment and functioning. The preliminary results were presented during the Third Regional Coordination Meeting, organised in Algiers, on 8-10 February 2009. The participants confirmed their support to REMESA and recommended the RAHC-NA to ensure the network coordination.

The final study was presented to all partners during a side meeting (organised by FAO/RAHC-NA with AECID funding) of the 77th OIE General Session, last 27th May. During this meeting all participants agreed to:

1. Establish a regional scope of action for REMESA that will include 10 countries (Algeria, Egypt, Libya, Morocco, Mauritania, Tunisia, Spain, France, Italy and Portugal).

2. Define an operating structure composed of the following bodies:

    - A Joint Permanent Committee (CVOs, UE, UMA, FAO, OIE).
    - A Coordination Unit (the FAO and OIE RAHC-NA).
    - Thematic working groups.

3. Develop a one year action plan for REMESA. This action plan will be drafted by the RAHC-NA (jointly by FAO and OIE) and presented for discussion during the first meeting of the Joint Permanent Committee to be organised in Tunis by the FAO/RAHC-NA from 15th to 16th July 2009.

2. REMESA Context

2.1. Regional political context for further transboundary institutional cooperation in the Mediterranean.

The Euro-Mediterranean Partnership

The initiative to create a Mediterranean Animal Health Network is in line with the global initiatives of the Barcelona Process (started in 1995) for a Mediterranean partnership, and more recently, with the proposed creation of the Union for the Mediterranean (launched in 2008). This initiative is also consistent with the European policy vis-à-vis the Mediterranean and could be integrated in the future feasibility study to be coordinated by DG SANCO for the enlargement to a wider Euro-Mediterranean partnership between the European Union and the countries from the Southern shore of the Mediterranean. The partnership, involving reciprocity, solidarity and co-development, aims at establishing political, economic and social cooperation. Beyond their bilateral nature and the specificities of each partner State, the Association Agreements tally with a similar pattern. They aim at promoting:

- Commerce, with the progressive liberalisation of the exchange of goods, services and capital. The development of exchanges shall foster a balanced development of the economic and social relations between the parties.

- Social, cultural and human dialogue. These fields, including the scientific, cultural and financial sectors, shall be the focus of a particular cooperation.

Moreover, the partnership aims at fostering regional cooperation among the partner Mediterranean countries, intra-regional integration being a source of peace and stability, as well as of economic and social development. At this level, regional cooperation holds special interest. It is particularly advised for all activities that may impact it, such as regional integration, the development of economic infrastructure, the environment, scientific research and technology, culture, customs and research. In the case of the Maghreb countries, regional integration could result in the establishment of common institutions and the design of joint policies and programs.

European Neighbourhood Policy (ENP)

The European Neighbourhood Policy (ENP) was developed in 2004 in order to avoid the emergence of new dividing lines between the enlarged EU and its neighbours, and to enhance prosperity, stability and security. The EU offers its neighbours a privileged relationship based on mutual commitment to common values. ENP goes beyond existing relationships to offer political links and economic integration. ENP central element is based on the ENP bilateral Action Plans mutually approved by the EU and each of the partners. ENP applies to the Union's immediate land or sea neighbours, including Algeria, Egypt, Libya, Morocco and Tunisia. Given that ENP is based on existing agreements (Partnership and Cooperation Agreements and Association Agreements within the framework of Euro-Mediterranean partnership), ENP has not yet been "activated" for Libya, since no such agreements are enforced.

2.2. Animal health and food security

Though the notion of food security needs to be distinguished from the sanitary security of foodstuffs, related to hygiene and the harmlessness of food, as well as to the maintenance of its safety, there is a growing concern by the challenge that needs to be met by animal health professionals playing a major role in the food chain.

The control of infectious diseases at the regional level, resulting from an effective management of animal health, paves the way for the improvement and optimisation of cattle production, and, by the same effect, an increase of food supply, in terms of quantity, safety and quality for the least privileged.

We should not however separate animal health in the region from the concept of "food security" which was on the agenda of the recent meetings and conferences of all the world major leaders. Among the political initiatives taken recently, the following are worth mentioning:

- The High Level Task Force on food security in developing countries met for the first time on April 15th, 2008.

- The High Level Conference on global food security was held in FAO-Rome, on 3-5 June 2008. The conference final statement reasserted the necessity of doubling global food production from now to 2015 and of encouraging the development of local agriculture.

- On July 3rd, 2008, the French Government, in partnership with the European Commission and the European Parliament, jointly convened a conference on food security. The Conference made it possible to take up the proposals for a new three dimensional global partnership: political, scientific and financial.

- The G8 Summit, held in Japan on July 8th, 2008, signed a joint declaration on global food security.

- The Spanish Government, jointly with FAO, organised on January 26th and 27th 2009 the High Level Meeting on "Food Security for All", aiming at reviewing the state of the arts on the evolution of global food security and the follow up of the financial and strategic commitments taken during the conference convened on June 3rd 2008 in Rome (boosting of purchasing power and bail out of agricultural supply).

2.3. Regional Coordination Networks: Merits and Limitations

The notion of an animal health regional network is based on grouping of various countries, helping to harmonise the surveillance and control methods, and enhancing the national schemes that compose them. They thus aim at supporting the development of national control networks and activities.

The harmonisation of activities, the pooling of competencies and the exchange of information should allow the improvement of the effectiveness of the strategies for the surveillance and control of animal diseases in the whole of the Mediterranean region.

2.3.1 Merits

Geo-sanitary Unity

The existence of an individual region characterised by natural (climate, geography, relief, etc.) or human unity (economy allowing for important trade, political, administrative exchanges, etc.) entails the existence of areas where specific diseases prevail or areas that may be called geo-sanitary areas. On the one hand, the use of international standards for the recognition of a status relating to disease (OIE standards), and on the other hand, the implementation of a plan for the surveillance and control of animal diseases (in the framework of the FAO/OIE GF-TADs), would be harmonised in the countries belonging to the same region. Indeed, the constraints, the necessary methodological adaptations, as well as the interpretation of international regulations are generally the same for these countries. This level makes possible to improve the reliability of the sanitary information issued by the countries concerned.

Pooling Means

The second interest of regionalisation is the common pooling of means, both human and material, to enhance the development of national networks. The technical expertise brought by regional coordination makes possible, in a first stage, to take into account the regional specificities for the interpretation of international standards and, above all, to harmonise the surveillance methods set by each of the national networks. It is this expertise which will later ensure follow up, assistance and the regular assessment of the national networks. This allows an optimal preparation for the status recognition files that may be submitted to OIE or for any assessment required for risk analysis within the framework of exchanges, according to the WTO principles and rules. Not only does the organisation of the training of national officials at the regional level entailing an economy of means, but it also enhances the harmonisation, even the standardisation, of the network methods and operations in each of the countries. More generally, the important need of human and material resources to be mobilised during an outbreak of an epizooty could be partly met owing to the cooperation set between the States within a regional system.

Centralisation and Information Exchange

Coordination and facilitation at the regional level will allow the organisation of regular meetings between the animal health actors in the countries of the region. Such coordination meetings are opportunities for formal or informal exchanges of information, knowledge transfer, methods, know how which add up to regional expertise, training and programming approaches and help to improve the effectiveness of national schemes. The facilitator in charge of the coordination will approach his or her counterpart in each country of the region, and sustain contacts among institutions, organisations and stockbreeders associations. This aspect is equally important to ensure the viability, sustainability and the effectiveness of the regional scheme. Not only does the enhancement of communication warning, but it also improves early warning at a regional level, and consequently, organises better prevention and control during a disease outbreak or when increases its geographical dissemination.

2.3.2. Limitations

Regionalisation in animal health has a certain number of limitations or critical points that should be taken into account for the implementation or management of such systems. To begin with, one must bear in mind that each country is still sovereign in terms of the decisions taken to set up an epidemiological surveillance network, to control an animal disease or disseminate sanitary information beyond its borders. The regional level has no overseeing authority on the individual countries. Persuasion is therefore sometimes needed to convince some parties to set up harmonised or standardised schemes at the regional level. The regional animal health network coordination structures are confronted with the issue of their sustainability. By definition, the epidemiological surveillance network must be sustainable. The regional levels are however often set up because of circumstantial funding over a few years and their survival is not ensured in the long run. The idea is thus to seek the integration of regional coordination structures within sustainable organs which would host them (such as the Barcelona Process-Union for the Mediterranean) and, whenever possible, ensure their long term funding.

The modern tools set up to ensure the circulation of data and information among countries will never make up for the poor quality of the data collected at the national level. It is thus necessary for the regional level not to replace the use of new information technology for the compulsory in-depth work to be conducted in each country of the region, aimed at improving the field of surveillance procedures. Finally, the formalisation of an animal health regional network should complement and build on existing international schemes. The regional network should help to reinforce the OIE information system through the collection and the processing of sanitary information. But it should also facilitate the exchange of information beyond this scheme, by seeking better quantitative and qualitative information flow, beyond the mere exchange of epidemiological data.

2.4. Justification for a Mediterranean Animal Health Network (REMESA)

Various factors justify the creation of a **Mediterranean Animal Health Network.** The existence of a geo-sanitary unity among the countries around the Mediterranean is based on:

- Physical traits such as the sharing of an agro-ecological unity which ignores administrative borders.

- Similar Mediterranean climatic system.

- Increasing circulation, exchanges and sharing of populations (tourism, migration, trans-border social units) between the two shores, taking into account the free circulation of people and goods within EU and the agreements between EU and the Maghreb countries.

- Exchange of animals or animal products. Such exchanges are actual (sometimes difficult to control) or desirable (existence of sanitary barriers now preventing them).

- Free circulation within EU and the will to establish free trade within UMA, with the possible prospect of a future Mediterranean economic space.

This geo-sanitary unity places the countries around the Mediterranean in situations where exist similar epidemiological risks for many contagious or transmissible diseases in the region, such as Bluetongue and rabies present in the area, or diseases from outside the region, such as Foot and Mouth Disease, Rift Valley Fever, African Horse Sickness, etc. Such unity entails the important risk of rapid spread of these animal diseases in the Mediterranean space, with a potential high sanitary and economic impact. The chances of success of the prevention and control of these diseases are closely related to the harmonisation of the activities undertaken by all the countries in the region. The number and variety of experiences in designing animal diseases surveillance and control schemes in the region are as many examples and lessons to be drawn for the development of regional initiatives.

The political, economic and social advantages of working in a spirit of trust and cooperation between the two shores of a common Mediterranean space are there to be reaped. By bringing together countries of south Europe and North Africa into an equal partnership of common interest, the durability of the network will be ensured. Countries of the southern shore of the Mediterranean will improve their access to better information, knowledge and financial resources; the countries of the northern shore will benefit from strengthen animal health services in northern Africa, that act as barriers to diseases coming from sub-Saharan Africa and the Middle East and will improve their access to relevant sanitary information when outbreaks occur. Furthermore, by including countries that are traditional donors in the Mediterranean region (such as France, Spain, Italy or the EU) as members of REMESA, the financial support needed to ensure the sustainability of the network is further affirmed.

2.4.1. REMESA Rationale

REMESA network should be considered as a new structure, a working and mutual cooperation framework, enjoying capacities to supervise and facilitate the development of future animal health projects and programmes on both sides of the Mediterranean.

REMESA should be designed like a service provider in the field of surveillance, prevention, monitoring and control of Transboundary Animal Diseases. The veterinary services of all member countries are its target clients.

2.4.2. Countries covered by REMESA

The definition of a regional sanitary collaboration involving countries in the Northern and Southern shores of the Mediterranean is an innovative project which requires the accurate definition of federating objectives for all the countries concerned, within a balanced spirit of exchange. According to the agreement between the participating countries in the Avila, Algiers and Paris meetings, the suggested perimeter encompasses ten countries: Mauritania, Morocco, Algeria, Tunisia, Libya and Egypt, Italy, France, Spain and Portugal.

The rationale behind this grouping is to represent a unity with territorial continuity, both to the North and the South, where determining factors for the design of a regional scheme can be verified.

3. Regional epidemiological characteristics and priorities

3.1. Animal diseases in the region

Besides endemic epizooties, such as sheep and goat pox and brucellosis, three other animal diseases are economically significant in most Mediterranean countries: foot-and-mouth disease, which affects all countries in North Africa and constitutes a genuine threat to Europe; bluetongue, which appears sporadically in certain countries and represent a great concern in the region; and "*peste des petits ruminants*", whose first outbreak in the region has been reported in Morocco on June 2008. Other diseases, such as avian influenza and rabies are also a constant threat for the region, as the first one has become endemic in Egypt and the second one is already endemic in the region and both could easily cross the borders into neighbouring countries. These diseases can have a dramatic impact on food security and public health, affecting to the livelihood of the more vulnerable populations, as well as to the international trading within and outside the region.

Foot-and-mouth disease (FMD):

FMD is a devastating disease of livestock. All species of cloven-hoofed animals are susceptible and the disease is extremely contagious. Financial losses as a result of FMD can be significant. There are direct losses due to deaths in young animals, loss of milk, loss of meat and a decrease in productive performance. The costs associated with eradication or control can be high and, in addition, there are indirect but very important losses due to the imposition of trade restrictions. For this reason countries which are free from FMD should try to maintain their disease-free status and countries which have the disease should invest in control/eradication campaigns.

FMD outbreaks in North Africa have always been from exogenous sources, which explain the high sensitivity of local livestock to the disease. FMD has penetrated North Africa on several occasions, from South America, the Near East, and more recently, from South-Saharan Africa. FMD also represents a serious threat to neighbouring European countries, which are vulnerable to infection through people and trade movement. The 1999 FMD epidemic in North Africa had serious indirect consequences for the export of fruits and vegetables to Europe.

Bluetongue (BT):

Bluetongue (BT) is an infectious insect-borne viral disease affecting ruminants, with serious economic implications due to loss of production, high mortality rates and the regulatory restrictions which ensue. BT clinical signs are uncommon in domestic animals and are generally found only in sheep and some wild ruminants, which are also susceptible to the disease and could play an important epidemiological role in zones where they are present in large numbers.

There are known to be 24 different types of BT virus and immunity against one type of virus does not protect against a different type, so before vaccinating, the types of virus within a region must be properly identified and as many strains of vaccine as viral strains present have to be used. This is an important point to be taken into consideration due to the probabilities of different virus types circulating within the Mediterranean region, making possible the occurrence of a "two way" infection, between North Africa and Southern Europe, from

different sources of virus. Coordination and networking between the national veterinary services is therefore an essential prerequisite for the control of BT.

Since 1998, BT epidemics have affected the whole Mediterranean basin and the emergence of new virus serotypes is a permanent threat to North Africa and Southern Europe. In 2002 virus serotype 2, probably coming from Maghreb, affected Sardinia, Corsica, the Balearics and Northern Italy. The recent emergence of the disease for the first time in Morocco, in 2003, and then in Spain and Portugal, indicates the potential risk of spread of the disease and its vector within the Mediterranean region.

Sheep and goat pox (SGP):

SGP are contagious viral diseases of small ruminants. These diseases may be mild in indigenous breeds living in endemic areas, but are often fatal in newly introduced animals. Economic losses result from decreased milk production, damage to the quality of hides and wool, and other production losses. SGP can limit trade and prevent the development of intensive livestock production. They may also prevent foreign breeds of sheep or goats from being imported into endemic regions, having an impact also on commercial exchanges North-South.

SGP is endemic in North Africa, but the number of reported outbreaks has recently decreased significantly, however this may not reflect the reality of the disease situation in the region, since SGP seems underreported. Different studies have showed that livestock owners had observed clinical signs related with sheep pox and had not officially notified them to the veterinary authorities. There is a clear need to enhance communication between the production sector and veterinary services within the region in order to control/eradicate this disease.

Most of Europe is now free from endemic SGP, although occasional incursions into Southern Europe have also been recently reported. Even if the risk of infection is relatively low, the consequences would be important due to the high sensibility of European sheep breeds

The strategy to control SGP is based on vaccination (with varying degrees of coverage). Preliminary efforts to improve control of the disease and increase vaccination coverage have produced excellent results (under the RASDISCON initiative developed in 1996-2000). However, regional coordination between veterinary services needs to be improved to ensure continuity.

Brucellosis:

Bovine brucellosis is usually caused by *Brucella abortus*, while sheep and goats brucellosis is typically caused by *B. melitensis*, which is endemic in most of the Mediterranean basin and can affect also cattle. In animals, brucellosis is largely a reproductive disease with economic losses associated with abortion, infertility, and decreased milk production. But brucellosis is also a true and highly pathogenic zoonotic disease in humans and it is estimated that the real incidence in humans may be between 10 and 25 times higher than reported figures.

While many countries in Southern Europe have conducted successful control/eradication efforts, brucellosis remains a major economic and public health problem in North Africa,

where *B. melitensis* is prevalent and the veterinary authorities can not afford to compensate owners of sheep and goats for slaughter of seropositive animals or of entire flocks. Therefore, vaccination with Rev 1 is largely the only effective method of control.

In North African countries different control programmes based on vaccination and/or the slaughtering of infected animals have been applied. Despite the RADISCON 96-00 initiative to harmonize methods of control and epidemiological surveillance, no regional approach has so far been adopted by the countries concerned. However, coordination of control and surveillance is essential to deal effectively with this transboundary animal disease and to curb its economic impact and its threat to human health.

Peste des petits ruminants (PPR):

PPR is an acute highly contagious viral disease affecting small ruminants, especially goats, which are highly susceptible, and occasionally wild animals. The disease is transmitted through close contact between animals and it causes heavy economical losses. It normally occurs in South-Saharan Africa, most of the Middle Eastern countries, and South-West Asia. Control of PPR outbreaks relies on movement control (quarantine), focused ('ring') vaccination and prophylactic immunization in high-risk populations.

PPR was diagnosed for the first time in North Africa last June 2008, more precisely in Morocco. The disease spread throughout the country and the Government of Morocco spent a considerable sum of money on its control, mainly throughout a wide-ranging vaccination targeting millions of animals. The difficulties for the implementation of an effective PPR monitoring and surveillance programme in the region, exposes the whole Mediterranean area to a potential risk of disease introduction, with the consequently substantial costs that control/eradication would entail in countries where small ruminant production is so important. It is necessary to develop regional epidemiological surveillance programs and early warning systems in order to detect any incursion of the disease on time. These measures will also prevent the further spread of the disease, decreasing the risk of introduction into neighbouring countries.

Highly Pathogenic Avian Influenza (HPAI):

Avian influenza A virus strains are further classified as low pathogenic (LPAI) or highly pathogenic (HPAI). Most avian influenza A viruses are LPAI viruses that are usually associated with mild disease in poultry. In contrast, HPAI viruses can cause severe illness and high mortality in poultry. Wild birds are the natural host for all known subtypes of influenza A viruses. Typically, wild birds do not become sick when they are infected with avian influenza A viruses, however, some avian influenza A viruses also can cause serious disease and death in wild birds. Humans can be also infected with Avian Influenza A viruses and the disease can be very dangerous and even mortal in particularly susceptible people exposed to infected animals.

North African countries are particularly exposed to the entry and infection of HPAI, as this is where migratory bird routes converge. The region is in the southern part of the Black Sea/Mediterranean (Spain, Italy) route and, in the winter months, is crossed by a total of 500 known species, more than half migrating from Europe and Northern Asia. In addition, the situation in Egypt, where the disease was first reported in February 2006, is considered

endemic with regular reporting of outbreaks in almost all of the 29 governorates, presents a serious risk, especially as Egypt is a major exporter of poultry products. The Egyptian Government has been obliged to cull million of birds and poultry farms are required to test and receive certification prior to any transportation. The current government policy is to vaccinate poultry in backyard/household settings twice a year and to allow commercial farms to vaccinate their flocks with registered vaccines of their choices. There have already been 68 cases of human infection, 26 being fatal cases (April, 2009).

The ongoing project "Strengthening systems of surveillance and control of Highly Pathogenic Avian Influenza (HPAI) in the Maghreb and Egypt", GCP/RAB/001/SPA financed by AECID, aims primarily to ensure the prevention of the disease and the capacity to control it. However this project will have to ensure the continuity of regional efforts to maintain active and coordinated surveillance of HPAI among all the North African countries.

Rabies

Rabies is a viral zoonotic disease of mammals with an almost worldwide distribution. Disease transmission is invariably via the bite of an infected animal that is excreting the virus in its saliva. Once clinical signs appear in the bite victim, death from rabies is nearly always the outcome. Sylvatic rabies predominates but spill-over to domestic species occurs, total avoidance of rabies in domestic species cannot be achieved unless the disease is eliminated from the wildlife reservoir species. Urban rabies, affecting stray and feral dogs and cats, is by far the more dangerous to man, accounting for an estimated 99% of all recorded human cases and causing probably more than 50 000 human deaths worldwide.

The costs associated with eradication or control can be high and for this reason countries which are free of rabies go to great lengths to maintain their disease-free status; many European countries which have the sylvatic form of the disease invest large sums in eradication campaigns. Key elements in the control of rabies are recognition of the virus and the disease which it causes, its epidemiology and how infection may be prevented.

Despite the efforts to control rabies, the disease remains endemic in the region. The higher migratory flows within North Africa and between the North African and the Sahel countries and those of the Southern Europe (especially Spain, France and Italy) increase the risk of disease spreading to unaffected countries. Because of the severity of the disease and the risk it poses to human health, support needs to be given to actions to improve its control in the region.

3.2. Veterinary Networks for North Africa and Southern Europe

Environmental changes and human activities are influencing the distribution, incidence and intensity of animal diseases. Travels, trade and traffic are major drivers for the spread of transboundary animal diseases (TADs) that are not evenly distributed over the globe, because contained by physical or climatic barriers. Climate change is also creating new ecological niches allowing for the establishment and spread of classical and new vectors and diseases from one region to another. This expansion will continue and increase public health emergencies and huge financial losses that will require adapted and coordinated eradication programmes and control measures.

It is crucial to establish capacities to control this threatening disease and a multi-faceted approach for its prevention and efficient management to avoid its spread. In addition, the actual trend of increase in regional and intercontinental trade for animal products (including live animals) emphasizes the need for a better surveillance and prevention in all regions of the world, and wider sharing of information on epidemiological events of TADs and zoonoses, from national to regional and global levels.

While veterinary services in Southern Europe are generally well equipped and able to deal with Transboundary Animal Diseases (TADs) in an effective way, most of the North African ones still need to be adequately equipped with human and material resources, to improve epidemiological information sharing, to operate collectively and to apply common strategies, if there is to be an effective prevention and control of TADs and zoonoses within the region.

There are several diagnostic laboratories within North African countries with potential animal diseases diagnostic capabilities but some have critical gaps in detecting the etiological agents in a timely and accurate manner. Human and physical resources, including laboratory equipment, supplies and consumables, implementation of Quality Assurance and accreditation need to be sought and their supply needs to be secured in many national laboratories. There is also a clear need to harmonize laboratory protocols within the region.

Disease surveillance and reporting systems in North African countries are functional but need to overcome some shortcomings. The veterinary services epidemiological skills for early warning, timely reporting and feedback are still limited. Obtaining clear and concise baseline data and disease information, as well as disease entry risk assessment, are matters of basic importance that need to be strengthened to be prepared for potential animal diseases outbreaks. Experience and information sharing within the region also needs to be enhanced.

The absence of detailed national action plans for each disease prevents rapid detection and effective control. Such plans need to be supplemented with regional action plans to harmonize strategies and legislation (quarantine, etc.). The capacity of response also needs to be boosted through greater access to vaccines. Related initiatives such as "regional vaccine banks" need to be studied and tailored to regional needs.

FAO’s substantial experience in fighting TADs has shown that networks are an efficient and effective frame for coordinating a multiplicity of actions including the harmonization of protocols; facilitating regular, transparent, and rapid exchange of information and experience, and building mutual respect and trust. Strategically, a regional network also represents an ideal mechanism to foster leadership, enhance performance, and bring tangible results, which can catalyze healthy competitiveness and emulation, within and outside of a region. Indeed, the development of interpersonal relationships and interactions is an excellent way to facilitate honest and open sharing of professional experience, intelligence and data and consequently build mutual trust.

Veterinary networks for specific animal pathogens have already shown to be instrumental for the eradication or control of diseases such as rinderpest and foot-and-mouth disease. Their success has been based on highly motivated scientists from national laboratories and field animal health professionals, that shared more and more easily their technical experience through the strong interpersonal relations built along the various events of the network life.

Lessons learned from a disease event in one country can be invaluable for other countries' preparedness to respond to the same disease. Moreover, chances for eradication of animal diseases augmented if neighbouring countries act in a concerted way as parts of a wider geographical strategy.

The Mediterranean region's networks of animal health laboratories and epidemiosurveillance units have to be strengthened to create and/or enhance reference laboratories and animal surveillance centres. The network is currently not at that level so epidemiological information is not shared between countries, which limit the possibility of adopting common early warning and control strategies among North African countries and among North African countries and Southern European countries. As these networks are mainly based on manpower (both from laboratory and epidemiology teams), emphasis should be put on training/workshops, conducted in a convivial manner through common courses, regular meetings, website platforms, forums, etc.

But veterinary services should not act in isolation and exclusively within the public sector. A system of integrated epidemiological surveillance and control of animal diseases also requires the inclusion of the private sector, so that the veterinarians, farmers and producer associations can participate in the prevention and sanitary control network, in parallel with the public veterinary services. Such integration is at present very limited in most countries of North Africa.

Animal health communication also has to be improved. The idea of creating a regional communication network for TADS, involving members of multidisciplinary communication national teams, has to be imposed gradually in order to facilitate exchanges between protagonists of communication in animal health. The aim is to develop areas of collaboration and exchange, and a range of professional links between communications teams, veterinarians, public health staff, professionals of animal production sector and other civil society actors. These links should be also reinforced with networks of institutions and organizations whose interests and assignments agree on animal health communication field.

Following the discussions during the second regional animal health meeting for North Africa, organized by the RACH-NA in Avila (April 2008), it became clear that laboratory and epidemiology, as well as communication and socioeconomics/animal production networks in North Africa should also include Southern European countries. Strengthening the links between the veterinary services of neighbouring Mediterranean countries in Europe and North Africa will not only ensure the sustainability of the capacity building efforts, but encourage the exchange of information and the building of partnerships for the benefit of both shores of the Mediterranean. This approach constitutes the essential pillar for a Mediterranean Animal Health Network (MAHN or REMESA), coordinated by the RAHC-NA. This action plan has been designed to address the above priorities.

4. Guiding principles for the REMESA Action Plan

Built on the leading role that the FAO/RAHC-NA has developed in animal health coordination among North African and South European countries (as well as other partners) since May 2007, the **REMESA Action Plan** must be considered as a one year plan for FAO/RAHC-NA activity, incorporating regional programmes and projects. The action plan has taken into consideration all existing past and present animal health experiences and ongoing programmes in the region (bilateral cooperation among countries, regional projects, previous experiences such as RADISCON and WAHIS) in order to avoid duplications. The action plan also links and enhances the already existing FAO global programmes, networks, systems for TADs control such as EMPRESS, GLEWS, OFFLU, etc, as well as the animal health networking activities developed by EU/DG-SANCO (including coordination mechanisms of European veterinary services) and the bilateral projects funded by Spain (AECID), France and others.

These principles offer several advantages:

- it informs all REMESA members of the foreseen actions and calendar for their implementation, providing a reference for planning and monitoring FAO/RAHC-NA activity;
- it will be revised regularly, through discussions with the PJC of REMESA in order to be adapted to evolving needs and priorities;
- it is inclusive of all FAO/RAHC-NA managed projects, becoming the single reference framework of REMESA activity implementation;
- it provides the action plan a strong consistency and allows for the elimination of competitive or redundant actions, mainly by maintaining dialogue and inter-institutional transparency;
- it ensures a perfect circulation and sharing of information concerning the activity on a regional scale, making methods and data collected accessible to all concerned stakeholders, as all countries and regional institutions are partners and decision-makers of the network;
- it facilitates the organization and proposal of projects for technical institutions and financial donors that have the FAO/RAHC-NA as a single representative negotiation partner for the whole area;
- it gives credibility to the regional initiatives which are straightaway supported by all the countries and so it facilitates the access of specific projects to financial sponsors;
- it provides institutional and political legitimacy to its activities so far as REMESA, altogether in its objectives, functioning and decisions, may be supported by the regional organizations concerned (namely UMA and EU).

5. Action Plan: Objectives, expected results and activities

5.1. General Objective

To improve animal health in the Mediterranean region, thus contributing to the improvement of food security and public health.

5.2. Specific Objectives

To build capacities for a better coordination and performance of animal health services in the prevention and control of transboundary animal diseases and animal diseases transmissible to humans (zoonoses), through the constitution of a Mediterranean Animal Health Network at the service of 10 countries :Algeria, Egypt, Libya, Morocco, Mauritania, Tunisia, Spain, France, Italy and Portugal.

5.3. Expected outputs and activities.

Building an efficient animal health network entails the improvement of coordination mechanisms, enhanced performance and constant upgrading of the different structures, centres, institutions and experts that constitute the animal health services in the region. Effective coordination of animal health services to prevent and control TADs and zoonoses, can only be achieved through reinforced networking of relevant structures in different fields of expertise and specific diseases, both at the technical and policy level, through regular meetings on the main animal health actors, exchange and transfer of information and capacities, facilitated discussion forums, regional risk and capacities assessment, and regional strategic planning. In order to build the REMESA animal health network at the service of the 10 member countries the following outputs must be attained:

O.1. Regional coordination and performance for the diagnosis of TADs and Zoonoses has been improved.

A.1. Establishment of working groups of laboratory experts for each priority TADs and zoonoses in the region: ideally regular meetings will be organised at least once a year for each working group and online discussions forums will be facilitated through the RAHC-NA for the REMESA countries. The working groups of laboratory experts will provide technical support and orientation to the laboratory network members. Regional disease diagnosis action plans to be proposed and submitted for discussion to the laboratory network.

A.2. Establishment of a regional laboratory network with lead national central laboratories. Designation of lead laboratories for each TADs and zoonose in the region providing support, backup, training and needs assessment to the laboratory network members. Interlaboratory proficiency test carried out regularly for each TAD and zoonose by the network members. Improved mechanisms of information and transfer of knowledge within the network.

A.3. Promote collaboration agreements between laboratories and research centres within the countries of REMESA**,** including bio-security upgrading programmes**.** These agreements will entail medium term collaboration, support and transfer of knowledge in specific TADs and zoonoses relevant to the region**.** The FAO/RAHC-NA will facilitate contacts, discussions and access to information (fields of expertise, funding sources, etc.) and will support in the drafting of the agreements and monitoring of performance.

A. 4. Access to relevant information, documentation enhanced through a regional website for laboratories at the service of the 10 REMESA countries. The preliminary steps to establish this regional website have already been established through the creation of the "RECOMSA" discussion forum and online database in the FAO-ECTAD/RAHC-NA website. All relevant information, from events to technical documents, will be posted is this regional website and technical discussion forums will be facilitated by FAO/RAHC-NA experts.

O.2. Cooperation for epidemiological control and surveillance for TADs and zoonoses has been improved.

A.1. Establishment of working groups of epidemiology experts for each priority TADs and zoonose in the region: regular meetings will be organised at least once a year for each working group and online discussions forums will be facilitated through the RAHC-NA, providing technical support to the epidemiology network members. Regional disease epidemiology action plans to be proposed and submitted for discussion to the epidemiology network.

A.2. Establishment of a regional epidemiology network of national veterinary service epidemiology disease focal points. The network will improve mechanisms for information and transfer of knowledge and provide support, backup, training and needs assessment to the epidemiology network members. The discussions of the network will be animated online through the existing REPIVET forum of the FAO-ECTAD/RAHC-NA webpage.

A. 3.Enhance epidemiological surveillance by developing activities coordinated and harmonised at the inter-regional level, in order to:

- Standardise procedures for the surveillance of animal diseases, collection of samples, etc.
- Use common epidemiological indicators
- Share sanitary information to facilitate decisions for animal disease monitoring
- Contribute to Develop and implement the WAHIS notification international standards

A.4. Establishment of a regional online epidemiological disease mapping facility. The FAO/RAHC-NA will conduct a programme for GIS training and support the development of national disease mapping. Though the epidemiology network a set of

focal points will be nominated for this purpose and exchange of information facilitated though the discussion forum.

A.5. Regional risk analysis studies launched for major diseases. Regional disease risk analyses are carried out for each of the most relevant TADs and zoonoses in the region. These studies will involve the recruitment of multidisciplinary teams of specialised experts/institutions and the compilation of epidemiological and socio-economic information national and regional level. The studies/mission will be coordinated through the FAO/RAHC-NA and the support of the epidemiology network. On the basis of these studies specific project proposals will be drafted to address major needs.

A.6. Regional regular simulation exercises between two or more countries for each priority TADs and disease. Simulation exercises will be carried out at regional level for most relevant diseases. These will be either desk or field simulation exercises and will involve two or more countries of the region, within the framework of the epidemiology network. Relevant diseases with a number of circulating serotypes like Blue Tongue will be given priority.

A.7. Wildlife epidemiological surveillance networks established between REMESA countries (with priority given to wild bird and countries sharing common migratory routes). Based on the work already launched by the FAO/RAHC-NA a network of focal points of animal health and environmental services will be constituted among the REMESA countries. Priority will be given to wild bird networks, with emphasis given to countries sharing common migratory routes (Spain-Morocco, Italy-Tunisia, etc.). Eventually an online space/discussion forum for wildlife epidemio-surveillance could be established if agreed by all partners.

A. 8. Regional upgrading and coordination of early warning systems for main TADs and diseases. Crisis management protocols will be developed at regional level for each priority disease, including the procedures to establish regional crisis task forces when outbreaks occur. A feasibility study for the establishment of a "regional vaccine bank", tailored to regional needs, will be developed, with emphasis on new diseases in the region such as PPR.

A.9 Establishment of regional contingency plans for priority TADs and zoonoses. Contingency plans must be developed at regional level for each priority TADs and zoonose. These will describe preparedness actions, standing operating procedures, roles and responsibilities, communication channels, and contingency budget in line with each country's legislation and national plans**.**

A.10. Regional trazability studies and monitoring established for countries exchanging livestock and livestock products. National trazability programmes will be developed in coordination with the different actors involved in the food chain or upgraded with the support of the FAO/RAHC-NA. Based on these national plans regional cross-border plans will be developed.

O.3. A regional integrated approach for animal health communication for TADs and zoonoses has been developed.

A.1. Establishment of animal health communication working group: regular meetings will be organised at least once a year and online discussions forums and information exchange will be facilitated through the FAO/RAHC-NA with the support of the existing RECOMSA website space.

A.2. Establishment of a communication network including focal points for public health and online discussion forum for all countries in the region. Based on the work already developed by the FAO/RAHC-NA a regional communication network will be established. The network will include the communication focal points for veterinary services, but also Ministry of Health and Ministry of Information actors responsible for communication on animal health. The network discussions will be facilitated through the FAO/RAHC-NA RECOMSA discussion forum. The network will seek to harmonise communication messages and strategies at the regional level.

A.3. Coordination of regional communication strategies and plans including targeted programmes for migrant populations and tourism. A regional communication strategy will be developed for each priority disease. Emphasis will be placed on major zoonoses posing a risk for human health. Specific regional communication campaigns will be organised for countries sharing borders, relevant migrant circulation and intense trade.

A.4. Exchange of communication methodologies, materials and information at the regional level. Communication materials and methodological approaches should be shared among countries, with the support of the FAO/RAHC-NA and the FAO/ECTAD communication thematic unit, fostering a greater cohesion in the content of messages and transferring know how from one country to other.

A.5. Launch of harmonised regional public awareness campaigns. In the event of outbreaks and countries at risk awareness campaigns will be organised jointly by affected countries and with the support of the communications network and working group.

O.4. Knowledge on the regional socio-economics of animal health improved and regional livestock producer's networks established.

A.1. Establishment of a regional database for animal trade. A multidisciplinary team of experts will be deployed to compile trade data from different sources to constitute a database of relevant information concerning livestock trade within the region. This database will be posted online to facilitate consultation and updated on a regular basis.

A.2. Livestock sector reviews on production and trade carried out at regional level. Poultry sector reviews have been launched by FAO/RAHC-NA for Morocco, Tunisia and Mauritania, which will be soon be joined by the Algerian and Libyan. Similar reviews will be carried out for other relevant livestock in North Africa.

A.3. Compensation schemes developed and regional animal health contingency funds identified. Compensation schemed will be designed for HPAI and other relevant TADs with potential economic impact. These schemes will be have a regional focus studying the possibility of creating regional compensation contingency funds.

A.4. Establish networks and online forum for livestock/animal health producers' associations. Producers should be given a larger role in TADs control and prevention. REMESA will enhance the creation of regional networks of livestock producers based on the existing major national producer's associations. These networks will be facilitated through the FAO/RAHC-NA website and discussion forums.

O.5. Regional coordination, harmonisation and cooperation for animal health policy on TADs and zoonoses ensured.

A.1. Regional regular coordination meetings of the REMESA CPC (Joint Permanent Committee) to monitor network progress and validate initiatives. Following the regular regional animal health coordination meetings in Rabat, Avila and Alger, throughout 2007-2009, the CPC will meet twice a year to monitor progress of REMESA Action Plan, revise it discuss when needed and validate regional initiatives. These meetings will also be the opportunity to discuss technical issues concerning the status of priority diseases in the region. The REMESA coordination unit (FAO/OIE RAHC-NA) will ensure the preparation of the meetings, distributing information for discussion in advance. For technical issues the REMESA Coordination Unit (CU) will work closely with the thematic groups that will provide the scientific orientations for discussion. Reports and conclusions of the meetings will be drafted by the CU for distribution, validation and posting in the FAO/RAHC-NA webpage.

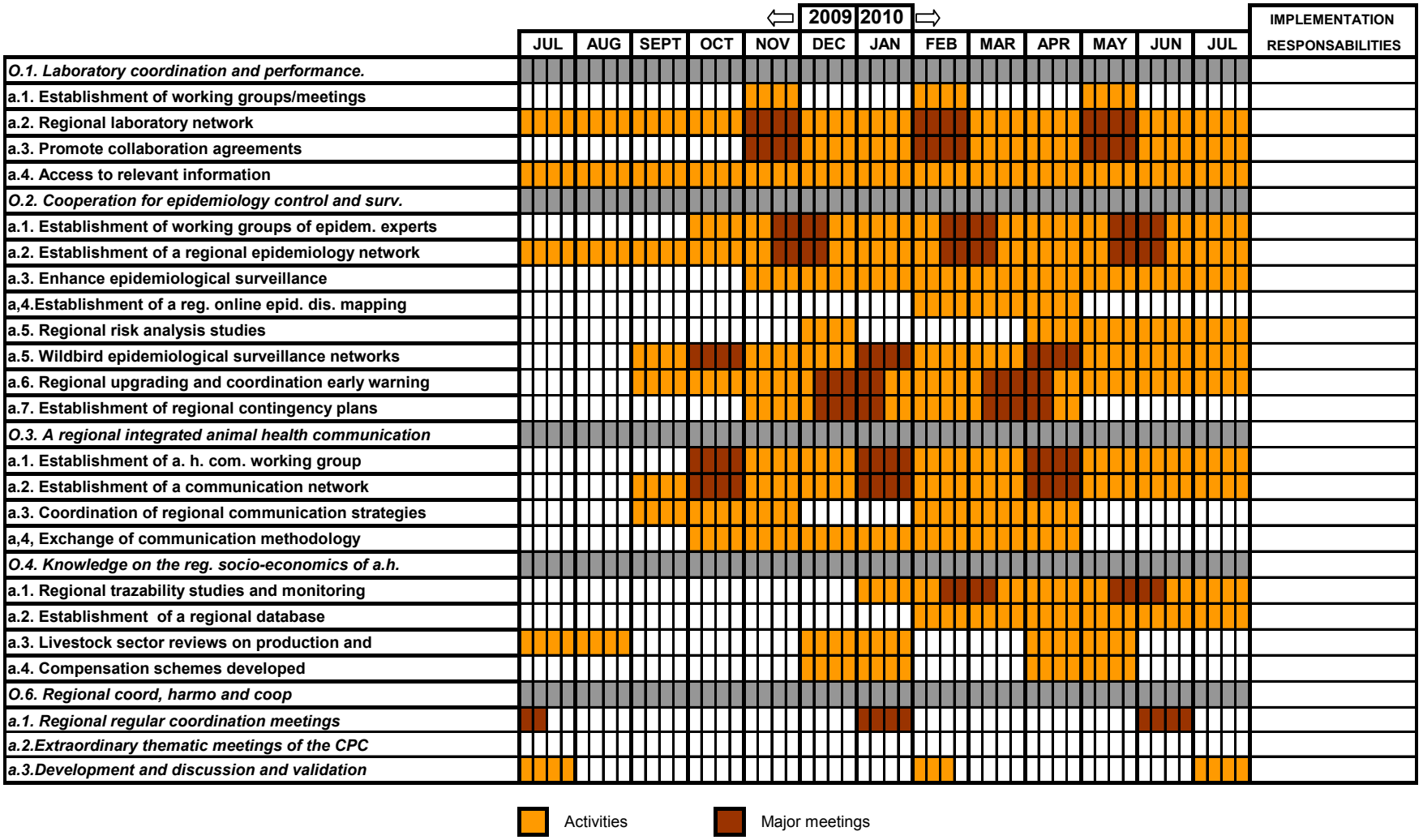
A.2. Extraordinary thematic meetings of the REMESA CPC organised at the request of one or more countries. At the request of any of the 10 REMESA member countries or the suggestion of the REMESA CU, extraordinary coordination meetings of the CPC will be organised. These meetings will be essential to coordinate efforts and harmonise strategies when new outbreaks occur. The meetings will be organised by the REMESA CU and technical discussions will be prepared in close coordination with the thematic working groups.

A.3. Development, discussion and validation of regional prevention and control strategic plans for each priority TADs and zoonoses. In order achieve a homogeneous progress in the control and eradication of the diseases and maintain the current disease status regional prevention and control plans for priority TADs and zoonoses will be developed. The plans will be monitored by the CU with the support of the technical thematic groups and the recruitment of technical experts/institutions.

6. Workplan and budget

FAO RAHC-NA

REMESA WORKPLAN *JULY 2009 - JULY 2010*



FAO RAHC-NA

REMESA ESTIMATE BUDGET JULY 2009 - JULY 2010

	DONORS (US$)				
	CURRENT			PIPELINE	
	AECID	CIDA	UE (DG-RESEARCH)	AECID	UE (DG-RESEARCH)
O.1. Regional coordination and performance for the diagnosis of TADs and Zoonoses					
O.2. Cooperation for epidemiological control and surveillance for TADs and zoonoses					
O.3. A regional integrated approach for animal health communication for TADs and zoon.					
O.4. Knowledge on reg. socio-economics of A.H. improved and reg. livestock producer's networks					
O.5. Reg. coord, harm. and cooperation for A.H. policy on TADs and zoonoses ensured					
TOTAL (US$)	1 700 000	500 000	50 000	2 500 000	