

## Sector Fiche – IPA National programmes / Component I

### 1. IDENTIFICATION

<b>Title</b>	Support to Agriculture and rural development
<b>CRIS Decision number</b>	2012/022-967
<b>Project no</b>	10
<b>MIPD Sector Code</b>	8. Agriculture and rural development
<b>ELARG Statistical code</b>	03.11
<b>DAC Sector code</b>	31110
<b>Total cost</b> (VAT excluded) <sup>1</sup>	EUR 17.1 m
<b>EU contribution</b>	EUR 15.6 m
<b>Management mode</b>	Centralised
<i>Centralised mngmt:</i> <b>EU Delegation in charge</b>	EU Delegation to the Republic of Serbia
<b>Implementation management</b>	Ministry of Agriculture, Forestry and Water Management
<b>Implementing modality</b>	Sector Based Approach
<b>Zone benefiting from the action(s)</b>	Republic of Serbia

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<sup>1</sup> The total cost should be net of VAT and/or of other taxes. Should this not be the case, clearly indicate the amount of VAT and the reasons why it is considered eligible.

## 2 RATIONALE

### 2.1 LINKS WITH NATIONAL SECTOR OBJECTIVE(S) AND MIPD SECTOR OBJECTIVE(S)

The agricultural and rural development sector encompasses agricultural production, forestry, fisheries, food safety, animal welfare, and sustainable rural development. The Ministry of Agriculture, Forestry and Water Management (MTFWM) is the key government body developing and implementing legislation for the sector. Although MTFWM has responsibilities for water it is important to note that water management is not included within the sector. Under the sector-wide approach water is considered to be part of Environment Sector.

**The Needs Assessment Document 2011-2013** defines the following priorities for Agriculture and Rural Development:

- Increase competitiveness of agriculture, forestry and fisheries, through managing the quantity and quality of Serbian agricultural production resources
- Improve food safety, animal health, animal welfare and plant health to harmonise with the EU integrated approach to food safety
- Support sustainable rural development that encourages diversification of the rural economy, and improves the quality of life in rural areas
- Protect and enhance agri-environmental quality and biodiversity as a contribution to environmental and ecosystem protection

**The MIPD for 2011-2013** sets the following specific objectives for Agriculture and Rural Development:

- Improve capacities within state institutions for policy formulation and implementation with respect to agriculture and rural development;
- Progress in transposition of the *acquis* and alignment in line with the Common Agricultural Policy's (CAP) principles and objectives;
- Develop implementing structures within the management and control system under Component V;
- Further strengthen the food safety and veterinary sectors with a particular focus on the national system of laboratories for food chain control, animal welfare, control of diseases and controls at external borders;
- Increase the competitiveness and environmental sustainability of the agriculture sector and enhance the standard of living in rural areas; and,
- Improve the capacity of advisory and extension services and increase and facilitate access to credits in rural areas.

Support in this sector specified through 5 measures is in line with the recommendations of the **EC Analytical Report**<sup>2</sup>, whereas it is stated that particular attention should be given to strengthening administrative capacity and ensuring fundamental instruments and institutions

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<sup>2</sup> Analytical Report Accompanying The Document Communication From The Commission To The European Parliament And The Council; Commission Opinion On Serbia's Application For Membership Of The European Union (OCT 2011)

for managing the CAP, CMO and rural development activities, while continuing to focus on establishing all IPARD structures. Furthermore, it is stated that additional efforts should be given to achievement of full alignment with the EU acquis and the implementation of the harmonised legislation, focusing on further strengthening of the administrative capacity of the institutions involved in controlling food chain safety, in particular of the veterinary, phytosanitary and national reference laboratories.

Support in this sector is in line with priorities identified in **European Partnership** with Serbia (including Kosovo) of 18 February 2008 (2008/213/EC) and these are related to updating legislation and strengthening implementation and controls in the areas of food safety, veterinary and phytosanitary issues, upgrading veterinary, phytosanitary, wine and sanitary laboratories, inspectorates and controls at external borders, upgrading food-processing establishments to meet EU requirements, expanding animal identification and registration to all relevant domesticated breeds, and strengthening administrative structures and capacity needed to formulate and implement agricultural and rural development policies.

Also, support in this sector is relevant in accordance with the **Stabilization and Association Agreement (SAA)**, under Article 97, where it is stated that: “Agriculture and the agro-industrial sector cooperation between the parties shall be developed in all priority areas related to the Community acquis in the field of agriculture, as well as veterinary and phytosanitary domains”.

## **2.2 SECTOR ASSESSMENT – POLICIES AND CHALLENGES**

### *(1) National sector policy, strategy and context.*

The agricultural sector is economically significant, agriculture, food and beverages together accounting for 18% of exports in 2009<sup>3</sup>, but struggling to adapt to new conditions created by external forces (e.g. new markets, trade rules, EU regulations). Despite the importance of agriculture in the Serbian economy, agricultural production in many areas is weak and uncompetitive; a result of historically low levels of investment, large numbers of very small farms, and an uncertain land market. A key characteristic of Serbian agriculture is the variability between different production sectors, some of which are more competitive than others. The **fruit and vegetable** sector is a good example with a wide variety of produce, but small scale production, old and low yielding varieties, and limited marketing characterise the sector. The **cereals** sector suffers from reductions in total production over the period for all the major cereals including wheat, rye, barley, oats, and maize, with yield per hectare for maize also showing a decline, and yields for other cereals stable. There are, however, some areas of improvement, pepper production, for example, has increased through both higher yields and a larger area under production.

The **livestock** sector is significant in economic terms and both live animals and meat products are significant exports for Serbia, and present significant areas of potential growth. The dairy sector, however, suffers from poor quality and low yields. Across the livestock sector as a whole there are concerns over small production units, low inputs and low yields, with significant concerns over quality, poor sanitary conditions, and food safety.

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3 Statistical Office Communication no.286, 2010

The **rural area** of Serbia includes around 3,900 settlements, with 33% of those in employment working in the primary sector. Other sources<sup>4</sup> suggest up to 75-80% of the active working population in rural areas are involved in farming, but with over 600,000 farms having less than 5ha land much of this activity is for household consumption, rather than production for markets. Agricultural activity is significant with 68% of small rural households identifying agriculture as a source of income. Rural areas in Serbia are diverse: demographically, economically, geographically and socially; and many rural areas have suffered from out-migration and low levels of economic diversification. There is also high unemployment and a lack of job opportunities, which is undermined by weak and undeveloped infrastructure. These factors combine to give rise to low GDP per capita in comparison with urban areas.

A clear policy direction for agriculture is provided in the **Agricultural Strategy for Serbia (2005)** (re-iterated in the **National Agricultural Programme of the Republic of Serbia 2010-2013 (2010)**), which has three overarching aims: restructuring (of producers, ownership and institutions), development of market and market mechanisms, and improving rural development and environmental protection. There is a focus on improving quality of production, through schemes such as Protected Designation of Origin (PDO), and Protected Geographical Designation (PGD) for agricultural products and food. In addition the **National Action Plan for the Development of Organic Farming (2010)** has the overall aim of increasing the amount of land in certified organic production, or in conversion to 50,000 ha by 2014 (from a base level of 596 ha in 2009). Other key areas of activity include plant health, seed and plant materials, plant protection products, and veterinary policy, which are only partially harmonised with EU legislation and need further laws and by-laws to be adopted.

The **Serbian National Rural Development Programme for 2011-13** (adopted in 2011) identifies three strategic objectives relating to improvement of the agricultural and food sector: encouraging improvement in food safety, veterinary and phyto-sanitary activities, attaining standards required by the EU acquis; and, encouraging sustainable development of the rural economy and rural areas by encouraging diversification. The **Forestry Development Strategy of the Republic of Serbia (2006)** has an overall strategic aim of preservation and expansion of forests linked to development of forestry as an economic activity. Key aims include supporting the economic and social functions of forests, while preserving the ecological features, institutional building and support for management that will enable sustainable exploitation of forest resources.

The proposed changes to the Common Agricultural Policy (CAP)<sup>5</sup> for the next programming period suggests some minor directions of change that might be made for Serbian agriculture.

Although Serbia may not benefit at all from the next CAP programming period it will be important to track the direction of change for strategic policy development. The proposed CAP changes aim to provide support for small farmers and focus attention on making agriculture more competitive. Under the changes a basic payment scheme is proposed (with an alternative scheme for small farmers) with gradual reductions depending on the level of funding obtained. There will be a compulsory greening payment for arable farms (>3ha in size), which will have to diversify and grow a minimum of 4 different crops.

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<sup>4</sup> N. Bogdanov, (2007) Small Rural Households in Serbia and the Rural Non-Farm Economy. UNDP.

<sup>5</sup> European Commission. Proposal for a Regulation establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy Brussels, 19.10.2011. COM(2011) 625 final/2.

Farmers will also have to manage at least 7% of their land as an ‘ecological focus area’ (this land could include hedge rows, terraces, buffer strips, landscape features and afforested areas or land left fallow), although farmers who are in certified organic schemes would not be required to carry out greening requirements and would be automatically eligible for the payment. This has significant potential impacts for Serbia’s policy intentions for agri-environment schemes and emphasis on organic farming. The CAP changes also include additional payments to support young farmers (under 40 yrs of age) to encourage new entrants, and facilities to allow member states to use some Pillar 1 funds to provide additional top-up payments for farmers whose land lies in ‘areas of natural constraint’ and to provide limited support linked directly to the crops produced or livestock reared where the sector in question is undergoing difficulties, or is particularly important for economic, social or environmental reasons.

Serbia may also need to re-examine its post-2013 rural development strategy in light of the proposed changes to Pillar 2 (rural development)<sup>6</sup> of the CAP, most significant of which is the removal of the current thematic ‘axes’ to allow greater flexibility, and a stronger focus on competitiveness and innovation. The four ‘axes’ have been replaced by six priorities and there is a new focus on a reduced number of measures working together to deliver these priorities more efficiently. Rural Development as well as forming part of the package of CAP draft regulations, is also covered by the new Common Strategic Framework, along with the Structural and Cohesion Funds and the European Maritime and Fisheries Fund. The six priorities are:

- Fostering knowledge transfer and innovation in agriculture, forestry and rural areas;
- Enhancing competitiveness of all types of agriculture and enhancing farm viability;
- Promoting food chain organisation and risk management in agriculture;
- Restoring, preserving and enhancing ecosystems depending on agriculture and forestry;
- Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors;
- Promoting social inclusion, poverty reduction and economic development in rural areas.

The proposed measures include provisions for increasing innovation and the transfer of knowledge and best practice between businesses. A European Innovation Partnership for productivity is proposed to increase the link between research and the agriculture sector. Farmers and processors will be able to bid into the fund for support to develop innovative projects. Proposals for agri-environment schemes indicate continued strong support for this aspect Pillar 2, but member states must now include an agri-environment-climate measure within their rural development programmes, and there is an additional focus on climate change mitigation and adaptation, and a new organics measure, to support the conversion and maintenance of organic land.

**Other national strategies** affecting the sector include: the Energy Development Strategy of the Republic of Serbia; the Biomass Action Plan for the Republic of Serbia 2010-2012; the

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<sup>6</sup> European Commission. Proposal for a Regulation on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) Brussels, 19.10.2011. COM(2011) 627 final/2.

National Sustainable Development Strategy (2008) with a focus on sustainable development (including preservation and improvement) in the areas of water, land(soil) and forests; and the Strategy for Regional Development (2007-2012), which addresses the specific problems of rural areas and obstacles to their development.

The key strategic documents in this sector have similar goals in terms of balancing the three overarching aspects of the sector: modernisation of agriculture, the economic and social development of rural areas, and agri-environmental and biodiversity protection. The main sector strategies complement each other and their implementation is strongly supported by past and ongoing interventions within the sector.

## *(2) Sector and donor coordination.*

The coordination and harmonisation of donor activities in Serbia, with a particular focus on country ownership over coordinating aid-funded activities, are ensured under the leadership of the Serbian European Integration Office (SEIO) – Sector for Planning, Programming, Monitoring and Reporting on EU funds and Development Assistance.

Serbia has signed the Paris Declaration and Accra Accord to improve the effectiveness and impact of development aid, and to ensure donor aid is aligned and harmonised with nationally adopted strategies. In Serbia, coordination of programming at the highest policy level is the responsibility of the Commission for Programming and Management of EU Funds and Development Assistance. The Commission meets annually and is chaired by the Deputy Prime Minister for European Integration (who also fulfils the role of National IPA coordinator), and is composed of 9 ministers and the Director of the Serbian European Integration Office (SEIO). The task of the Commission is to review draft documents that will be presented to donors, suggest priorities for use of resources of international development assistance, and consider and make proposals to the Government on other significant issues related to the use and management of EU funds and development assistance. As a monitoring tool monthly ‘bottleneck meetings’ have also been established between the EU Delegation (EUD), NIPAC and the line ministries to discuss the progress of IPA funded projects and to ensure their smooth implementation.

In order to better align donor support and IPA funding with national strategies, the NIPAC Technical Secretariat established eight Sectoral Working Group (SWGs) in 2010, among them SWG Agriculture and Rural Development, to prepare the Needs Assessment Document (NAD) for international assistance in 2011-13, and as the basis for identifying annual IPA I programmes, multi-annual IPA III-V programmes and bilateral donor projects. The SWGs comprise representatives from Line Ministries and other beneficiaries as the main actors in programming and project identification. The SWGs contribute to the identification and prioritisation of projects, ensuring co-financing and analysis of project implementation. Additionally, the NIPAC Technical Secretariat prepares annual action plans for programming and reporting on international assistance to ensure synchronization with national planning and budgeting processes. By defining activities, timeframe and roles and responsibilities of relevant institutions, it serves as a tool for coordination and aligning donor activities.

A sub-group of the Sector working Group has been created to focus on developing relationships with donors. This ‘Aid coordination group’ for Agriculture and Rural Development Sector is led by Ministry of Agriculture, Forestry and Water Management and co-chaired by EUD and consists of approximately 20 donors who meet regularly with

representatives of different sectors within the Ministry. This enables an exchange of information and views as well as more focused discussion on technical issues.

*(3) Sector budget and medium term perspective.*

The Memorandum on the Budget and Economic and Fiscal Policy for 2011 with Projections for 2012 and 2013 (August 2010), states that the strategic development goals in the field of Agriculture and Rural Development will be achieved through higher level of investments, and technological modernization of agricultural production as well as structural changes, enlargement of agricultural holdings/farms and adjustment to the EU market. Agricultural reform will also be accelerated in order to prepare the industry for the forthcoming liberalization of the most sensitive sectors in accordance with SSP and thus contribute more to the country's economic growth, especially to export growth.

According to the Memorandum the following funds are planned to be allocated from the state budget in the next two years<sup>7</sup>:

*Table 7 - Total state budget expenditure limits for 2011-2013 (in EUR\*)*

<b>Institution</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Ministry of Agriculture, Forestry and Water Management	33,250,932	38,345,252	38,345,252
Veterinary Directorate	26,339,951	33,167,786	33,167,786
Water Management Directorate	140,864	123,553	123,553
Forestry Directorate	1,872,408	1,647,350	1,647,350
Agriculture Land Directorate	16,803,825	114,448,078	114,448,078
Directorate of National Reference Laboratories	413,641	259,951	259,951
Directorate for Agrarian Payment	165,348,515	165,149,775	165,149,775
Directorate for Plant Protection	6,594,660	10,135,398	10,135,398

*(4) Sector monitoring system.*

The Republic of Serbia implements an integrated approach to planning, budgeting, monitoring and reporting at the central level. Under this approach, a yearly operational planning process methodology ("GOP") aligns the mid-term development objectives with long term commitments (in the national strategies) and with the needs assessment for international assistance. The Ministry of Agriculture, Forestry and Water Management defines the objectives, results and indicators through an Annual Operating Programme and monitors activities and spending against the Programme. The annual Operating Programme includes 3-year projections and is used to monitor activities and spending against across the agricultural sector. Monitoring is conducted quarterly, with a report on implementation

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<sup>7</sup>. The budget expenditure limits have not been amended since the reconstruction of the Government in May 2011; The Economic and Fiscal Program 2012-2014 based on the Report on Fiscal Strategy for the same period – does not present expenditure limits, but it is expected that they will be consolidated and published in the amended Report which will coincide with the budget rebalance for year 2012 and will match the composition of the new Government structure (established upon the 2012 Parliamentary elections).

activities and results, as well as a financial report, provided to the Minister. New reporting facilities will be introduced in 2012 by the Ministry of Finance to enable national level overview of sectoral spending and enhance transparency between government departments in relation to operational activities and spending. Additionally, within the Sector for Agricultural Policy and International Cooperation of the MTFWM, a group has been established for the preparation of projects funded by EU with main responsibilities related to implementation, monitoring and evaluation of IPA funded projects. This unit performs monitoring in line with EU procedures, and is currently preparing to obtain accreditation for a de-centralised implementation system (DIS) for IPA funded projects.

(5) *Institutional setting.*

According to the Law on Ministries, the agriculture and rural development reform policies are predominantly addressed by the following institutions: Ministry of Agriculture, Forestry and Water Management and its respective bodies such as: Plant protection Directorate, Veterinary Directorate, Land Directorate, Forestry Directorate, Directorate for Water, Directorate for Agrarian Payments and National Referent Laboratories.

Significant activities have taken place over the past decade to deal with some of the identified problems in the agricultural sector. New strategies and **national programmes** have been developed for agriculture, forestry, rural development and organic production. In addition, 30 new **primary laws** have been adopted in the past two years in order to harmonise with the *EU acquis*, and 94 **regulations** were passed in 2010 alone, addressing implementation requirements for agriculture, food safety and phyto-sanitary issues, water, forestry and rural development sectors. Agriculture and the rural development sector are operating in a context of adapting to the *EU acquis* with demanding new requirements throughout the food chain and for enhancing rural development.

Within the Ministry, there are two parts that are directly involved in development and implementation of rural development policy:

1. Sector for Agrarian policy and International cooperation – is responsible for development of rural development support programs, measures and related projects. The Sector also carries out the functions of analysis and development of policies in the agrarian field. Part of the sector, namely the Group for Rural Development, represents the Managing Authority.
2. Directorate for Agrarian Payments, established during 2009, carries out duties related to implementation of policy support measures directed towards agricultural and rural development, (i.e. evaluation of applications, monitoring, inspection and payment of subsidies).

These two institutions constitute the IPARD operating structure.

In 2009 MTFWM started with establishment of bodies responsible for implementation of IPARD in the Republic of Serbia. The draft IPARD programme has been developed with three measures included – investments in Agricultural holdings, investments in processing industry, and technical assistance. According to the Ministry's Action Plan for establishment of necessary structures for implementation of IPARD, the Directorate for Agrarian Payments - DAP (the future IPARD Agency) and the Managing Authority are being supported through implementation of an IPA 2007 project: "*Capacity building to implement Rural Development policies to EU standards*" (Twinning).



It is expected that the DAP will be prepared and organized to authorize, execute, account and certify National and IPARD payments in line with EU requirements by the end of the project (end of 2012). It is expected that the DAP will be accredited (conferral of management powers from the EC) by the end of 2012. At the same time the Managing Authority will develop the IPARD programme and will be prepared for monitoring of the IPARD programme using defined measures.

Having in mind that the new EU strategic programmes will start in 2014, the IPARD mechanism and criteria and overall accreditation requirements for IPARD could potentially be altered. Nevertheless, both the DAP and MA will have to be accredited before they can undertake any new measures starting from 2014 and will keep a watching brief on EU developments in order to modify accreditation preparation arrangements in line with any EU changes. This means that apart from the currently developed three measures that are operating the Directorate will need to start preparations for the new IPARD programme with a wider range of Axis 1 and 2 measures.

A range of other institutions exist to support agriculture and rural development, though many of these will require internal capacity building in order to effectively support delivery of programme measures under IPARD. There is currently a network of 35 agricultural stations (22 in Central Serbia and 13 in Vojvodina) with 340 extension services advisors providing advice to farmers, and 15 regional rural development centres (each with 10 branch offices). The extension service offices in Vojvodina are controlled and financed by the Provincial Secretary. The Institute for Applied Science in Agriculture (IAS) based in Belgrade is also involved in coordinating the work of the extension services and provides training. According to the Law on extension services, the IAS is authorised to coordinate activities and reports to the National Board for Extension Services.

An additional support mechanism are the regional development centres (RDCs) and their branches, which are located in municipal buildings throughout Serbia. These offer a means for getting more local involvement and input from NGOs and local authority representatives. They are part-financed on an annual basis from the Ministry to undertake specific small-scale actions (e.g. collection of data). They are viewed as the Ministry's main partners for rural development at the local level, and as precursors for the development of LEADER-type local action groups (LAGs), but again considerable capacity building will be required in order to enable them to support rural development under IPARD. In August 2010 a national association for a rural development network (a volunteer-based non-profit organisation) was established in Belgrade with assistance from a UNDP/SEDA funded project to support sustainable development strategies. The aim of the association is to provide overall co-ordination for NGOs operating in rural development across Serbia. RDCs currently have limited capacity for engaging in rural development and will provide logistic support for implementation of project activities in the field as well in the promotion of IPARD programme.

The agricultural and rural development sector have been the recipient of a significant amount of donor and bilateral aid (see Section 3.5) which has contributed to capacity development over the past decade. The agricultural parts of the sector are in a good position to absorb the measures proposed in this document, while the rural development elements still require support to create effective rural development institutional structures, and to build capacity within the payments agency to enable effective operation of agricultural and rural development support measures.

## *(6) Macro-economic context and Public Financial Management.*

In line with the Government of Serbia's Budget Memorandum, the objectives of economic policy in the aftermath of the global economic crisis include macroeconomic stability, sustainable economic growth and development of a competitive economy, increasing employment and living standards of people, and balanced regional development. Key structural reforms will be necessary in the areas of government administration, health, education, pensions and social allowances. Long-term sustainable economic growth depends as much on privatisation and the creation of a competitive environment, as well as conditions for a free market on a level playing field, with minimum transaction costs and adequately regulated monopolies. It anticipates a change of the overall economic growth model from consumption and import to investments and export. However, the agricultural sector will remain exposed to the volatile nature of input (e.g. fertilisers, feed) prices for some time to come, and must enhance efficiency of production in order to compete for markets outside of Serbia. Overall, this should not adversely affect the implementation of measures proposed in this document, which are aimed at improving and modernising the agricultural sector.

Monetary policy will stay focused on maintaining low and stable inflation, maintaining financial stability, and managing the floating foreign currency rate while maintaining adequate level of foreign exchange reserves. As of 2015, the Law on Budget System foresees that the national budget should be drawn up according to the programme-based model for all budget beneficiaries, with phased introduction for some of them. This will enable more efficient management and utilisation of funds, based on the programmes and activities of budget beneficiaries, thus contributing to the achievement of strategic objectives in accordance with the national economic policy. Since 2008, the programme for developing programme-based budgets has been implemented in five ministries.

Public Financial Management (PFM) in the Republic of Serbia has been recently reassessed in accordance with the Public Expenditure and Financial Accountability (PEFA) methodology<sup>8</sup>. Therefore, a basis for information and monitoring of PFM, for planning of the reform strategy and capacity development program is now available. Assessment of the PFM institutions, processes and systems has been carried out against several important areas: budget credibility; transparency and comprehensiveness; policy-based budgeting; predictability and control in budget execution; accounting, recording and reporting; external scrutiny and audit; and donor practices. A standardized scoring system is applied in the structure (sub-elements) of each of the topics, so that weaker scoring directly signalizes the necessity to concentrate efforts on the improvements in a medium-term perspective. The PEFA Report recognizes the dependency between PFM reforms and the EU accession agenda and recommends a more systematic approach and stronger specific leadership to ensure consistency of future PFM reforms.

## *(7) Sector assessment.*

The Government of Serbia is firmly committed to capacity-building within the Agriculture and Rural Development sector, in pursuit of its national policy objectives and reform agenda, and the path to European integration and accession to the EU.

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<sup>8</sup> The Republic of Serbia PEFA Assessment and PFM Performance Report 2010 has been published in November 2010

The assistance needs of the Agriculture and Rural Development sector for 2011-2013 have been fully articulated by the Sectoral Working Group for Agriculture and Rural Development, and described in the 'Needs of the Republic of Serbia for International Assistance 2011-2013', adopted by the Government in February 2011.

### Gap analysis

The gap analysis has been conducted through a range of actions, including:

- Analysis of the needs assessment
- Analysis of previous IPA programme and project development
- Institutional analysis of current conditions in the Agricultural and Rural Development sectors.

The analysis has revealed that although the Republic of Serbia has adopted a large number of laws and legal instruments in order to harmonise agricultural legislation with the *EU aquis*, implementation remains problematic due to inadequate resources, in terms of both lack of equipment and lack of training. The analysis has shown that in order to achieve the overall goal of modernising the agricultural sector, institutional changes are required across the board that will underpin improvements to competitiveness. Evidence from the needs assessment carried out in 2011 (resulted in preparation of NAD 2011-2013), for example explored IPA and donor support to the sector, identifying weaknesses in human capital, infrastructure and technological equipment (particularly the ability to communicate and transfer information), and in enforcement capacity. The strategic assessment indicated that IPA support has been largely focused on disease control, improving reference laboratories and animal identification (leaving large areas of activity untouched). IPA funding has made a start dealing with disease (with added cross-border benefits) and some structural areas of weakness (e.g. national reference laboratories) but the analysis revealed that more needs to be done with regard to improving food safety. Donor support, on the other hand, was revealed to be largely un-coordinated and focused on the phytosanitary sector, agri-business, and a number of small scale projects dealing with rural development.

The gap analysis also looked in detail at the Directorate for Agrarian Payments (DAP) which was established in July 2009, and started operating in February 2010 and has 66 employees (as of June 2011). DAP is currently preparing for the accreditation process, but still has limited human resources for conducting certain operations (e.g. software development, monitoring and checking, and dealing with the farm registration system), although a recruitment process is currently ongoing for 18 work posts (23 employees), all related to IPARD. In 2010 two small IPARD-like measures were implemented with national funding to support agricultural development and provide the DAP with some experience in programme implementation and introduce new requirements for farmers to familiarize them with stricter rules.

Current weaknesses relate to the following:

- Procedural arrangements not yet finalized
- Land Identification system not yet developed, as a requirement for some new measures that will be developed through IPA 2012 framework
- DAP is not fully staffed and people are not trained

As a result of the gap analysis, four sector priority areas were identified:

- Increase the competitiveness of agriculture
- Improve food safety
- Support sustainable rural development
- Protect and enhance agri-environmental quality and biodiversity

Under these priorities seven measures were identified for the 2011-2013 period of which five have been selected for IPA 2012. Four measures focus on the first two priority areas (i.e. increasing competitiveness and improving food safety), and one measure on rural development. The measures address key issues affecting the sector: food safety, application of pesticides, eradication of animal disease, inspection systems and land registration. The five measures were selected to deal with perceived structural weaknesses that are hindering the modernisation and improved competitiveness of agriculture. The assessments undertaken as part of the gap analysis identified the following weaknesses restricting development in the sector:

- Farmers and food processors are reluctant to invest in the sector while diseases and poor structural conditions in livestock processing threaten the quality of meat & milk products and prevent exports;
- There is inadequate control of pesticide application, resulting in poor application and additional costs, health hazards, and potential damage to the environment.
- Inspection services across the sector are compromised by lack of internal communication and control that result in duplication of effort, non-standardised systems, weak enforcement of laws, and poor quality products;
- There are no adequate systems for tracking on-farm activities and the impact of agriculture on the land.

The four areas of weakness are significant and all require a number of actions to be undertaken in order to improve the agricultural sector. All four areas require action as they are interlinked and improvements in one area alone will not be sufficient unless accompanying actions are undertaken elsewhere. For example, improvements in control of pesticide applications are required to reduce risks of contamination and encourage investment, improvements in livestock conditions (and in pesticide applications and tracking farm activities) require good inspection services, and unless the government can track what is happening on farms then it cannot develop programmes for modernisation and improving competitiveness.

This final point is the primary reason for establishment of an LPIS which is required to integrate with the existing Farm Registration system and GIS database developed within the Geodetic Authority, which will enable the DAP to operate secure and effective payment support systems and grant funding programmes. The Geodetic authority currently hold relevant information for providing DAP with a viable GIS data (digital cadaster, digital orthophoto etc), but support is needed through the measure proposed in this paper to undertake the task of developing software, providing relevant computer support, and developing human resources. The aim of the DAP is to build on IPA 2007 programme support, and the experience from the World Bank STAR pilot LPIS project to define and create a country wide LPIS that will underpin future agricultural support and rural development.

## Current Needs

The MTFWM is institutionally strong with good internal leadership in terms of dialogue, planning, prioritisation and management of its programmes. There is a clear overall sector vision and strategy, strengthened by the 2011 sector wide approach assessing priority needs. There has been significant (if uncoordinated) investment in relevant human resources and institutional capacities through previous EU (and other donor) funded projects. Investment to date is uncoordinated in the sense that some areas have received significant amounts of training, others none at all, one part of the Ministry does not always know what is occurring in other parts of the Ministry, some training has overlapped in content, and there has been a focus on low level rather than advanced training. Within the Annual Operation Programme of the Ministry, capacity building activities are included as part of each project.

The perceived weaknesses have been translated into priority measures for 2012 that will:

- Develop capacity for improving food processing establishments and hence the quality of and safety of meat and milk products;
- Develop strategic direction for managing animal by-products;
- Strengthen controls over pesticide use;
- Continue efforts to reduce incidence of Rabies and Classical Swine Fever (CSF) with consequent potential for improvement in quality of livestock and processing establishments;
- Develop capacity for improved achievements in rural and agriculture development, food safety and consumer protection in Serbia in line with EU standards and requirements
- Develop capacity to manage pre-accession assistance under rural development IPARD
- Provide capacity for managing rural development and agricultural support schemes through development of a strategy and methodology for implementing a land parcel identification system (LPIS) including software development.

The five measures were selected for 2012 address these weaknesses and to fulfill the following needs:

### Measure 1.1

- A national strategy for upgrading existing processing plants, building collection/intermediate plants and/or transfer points and provide for transport of ABPs.
- Compliance with environmental standards as well as meeting EU food and hygiene standards, and the Veterinary acquis.
- Strengthening the inspection and control services and certification systems for food processing establishments (meat and milk sectors) and developing capacity in the agri-business sector to meet food safety standards.

### Measure 1.2

- Implementation of the Serbian national law on PPP's through development of regulations, bye-laws, establishment of trainings and certification systems for distributors and end users of PPP's .
- Control testing of equipment for pesticide application equipment already in use.

- Awareness-raising regarding the use of pesticides, and introduction of the concept of integrated pest management to reduce use of pesticide and support development of organic farming.

#### Measure 1.3

- Continued support for the Rabies control programme building on previous IPA funding, and linking into cross-border disease eradication controls. Previous control programmes are indicating high levels of success, but the control programme must be continued to 2013 when a full evaluation will take place.
- Continued support for control and eradication of Classical Swine Fever, in order to improve competitiveness of farming, improve safety in the food chain and improve quality, safety and security of food production (for local consumption as well as export).
- Development of bio-security controls and a national compensation fund to improve management of disease outbreaks and provide support for those affected by disease.

#### Measure 1.4

- Improvements in food safety through improved administrative and inspection services across the entire agricultural sector.
- Strategic planning to improve efficiency and effectiveness of inspection services.

#### Measure 2.1.

- Strategic planning in preparation for IPARD - Component V. Support for the strengthening of the management and control system under IPARD
- Development of a LPIS for farm support mechanisms and rural development programmes.

### **3 DESCRIPTION**

#### **3.1 OVERALL OBJECTIVE OF THE IPA SECTOR SUPPORT.**

The overall objective of the IPA sector support is modernisation of agriculture and development of a vibrant rural sector, as well as achieving progress in transposition of the *EU acquis* and alignment with the Common Agricultural Policy's (CAP) principles for enhancing competitiveness and creating a sustainable rural economy.

The IPA support outlined in this document is being used to continue establishment of the foundations on which to build a modern and efficient agricultural sector. The key benefits arising from IPA support will be in relation to enhanced capabilities within the Ministry to undertake the following:

- Improve food safety
- Control CSF and rabies
- Control application of agricultural chemicals and plant protection products
- Undertake effective food safety inspections

- Strengthen the administrative structures for implementing rural development programmes.

These enhanced capabilities provide a solid foundation on which to modernize agricultural production aimed at improving both quality of product and enhancing the potential for exporting agricultural produce.

Improved capacity for undertaking food safety inspections and stronger controls on the use of agricultural chemicals will raise consumer confidence in Serbian produce, and create potentially larger markets for local products, as well as supporting improvements in quality needed for export. Support for control of CSF and Rabies continues previous IPA programme support and will have cross-border impacts through lowering the incidence of disease in neighbouring countries and improving quality of livestock. Finally, improved administrative structures will prepare Serbia for undertaking rural development programmes that will eventually benefit the rural environment as well as quality of life of those living in rural areas.

### 3.2 SPECIFIC OBJECTIVE(S) OF THE IPA SECTOR SUPPORT

The overall objective of IPA sector support will be achieved by focusing on the following MIPD sector objectives:

- **Further strengthen the food safety and veterinary sectors with a particular focus on the national system of laboratories for food chain control, animal welfare, control of diseases, and controls at external borders**

Achievement of this objective is based on the implementation of Measures 1.1, 1.2, 1.3 and 1.4 that will secure gradual alignment to the EU acquis, and the attainment of relevant standards in food safety, veterinary and phyto-sanitary field, as well as building capacities of competent authorities for implementation and full enforcement of the transposed legislation.

These measures address current structural deficiencies caused by poor enforcement of standards in processing plants, weak inspection systems, and lack of technical capacity to control pesticide use. The measures will have significant impact in improving the quality and safety of foods from animal origin, securing a higher level of human and animal health, and plant health protection as well as availability of adequate and transparent information about origin of foods. Cross border impacts will occur through improved capabilities to manage and transmit information, particularly in relation to food safety issues, and in control and reduction of animal diseases. Improvements to food safety and quality through improved processing standards, and disease control are likely to improve the quality of Serbian agricultural produce and lead to increased potential for export of food products.

- **To improve capacities within state institutions for policy formulation and implementation with respect to agriculture and rural development**

This objective will be achieved through implementation of proposed Measure 2.1. This will develop capacity within the Ministry of Agriculture, Forestry and Water Management (MTFWM) in preparation for adoption and implementation of IPA rural development measures (IPARD) when candidate country status is achieved. The measure will prepare the Serbian administration for the efficient management, control, and evaluation of IPARD, future CAP policies and programmes, by supporting capacity within the Directorate for Agrarian Payments and relevant units within the Ministry of Agriculture, Forestry and Water Management to manage EU funding streams.

### **3.3 RESULTS**

**Result 1:** Enhanced system of food safety, consumer health and safety, transparency, and a reliable agricultural inspection system in the Republic of Serbia in line with EU standards.

Results will be measured through a range of indicators that relate to:

#### **Measure 1.1**

- Further progress in transposition and implementation of the acquis in the area of food safety, animal health and welfare
- Adoption of a strategy for control of ABPs
- Identification of problems associated with food processing by inspectors trained to carry out activities in relation to control of food safety, animal health and welfare and plant health standards
- Improving trend in attainment of health and safety standards in meat and milk processing establishments

#### **Measure 1.2**

- Adoption of secondary legislation for implementation of the Law on Plant Protection Products (PPPs) relating to their sustainable use including integrated pest management, setting up training and certification of end users and distributors of PPP's and inspection of equipment for application of PPP's already in use.
- Adoption of a national strategy for implementing a sustainable use of PPP's .

#### **Measure 1.3**

- Reduction in number of outbreaks of CSF and cases of rabies in comparison to the previous year
- Adoption of a national programme for improvement of bio-security on pig farms.
- Establishment of a national compensation fund for farmers affected by animal diseases.

#### **Measure 1.4**

- Strategy for development prepared on basis of an organisational development activity (analysis of the operational and organisational structure ) and adopted by the relevant Competent Authorities (CA)
- Training programme prepared and conducted assuming responsibilities after re-organisation process
- An analysis of system requirements and recommendations for creation of information technology and management and communications (ITMC) systems prepared.
- Prepared technical specification for software development
- Software modules and applications for CA developed
- Prepared technical specification of hardware and licenses needs for the supply contract for next IPA programming year 2013



The Log-frame indicates that success is predicated on a number of assumptions. In relation to animal disease the assumption must be made that the disease control operations will be effective, particularly in the case of Rabies which is dealing with disease in wild animals across large areas of territory. In relation to improving food safety the key issue will be the economic situation which will enable widespread investment in improvements throughout the food supply chain.

**Result 2:** Strengthened institutional capacity of relevant authorities to carry out tasks and responsibilities for management of rural development pre-accession funds in accordance with relevant EU regulations.

Indicators for Result 2 relate to:

- Additional information for the IPARD Programme developed for the inclusion of the new rural development measures
- Procedures developed for the implementation of the chosen Axes 2 and Axes 3 measures as well as monitoring and evaluation strengthened
- Extension services trained through ‘Train the Trainer’ approach and prepared for publicity (dissemination of information to farmers and promotion of IPARD programme in the field)
- Technical/delegated bodies prepared for their role relating to the implementation of IPARD
- DAP and MA staff trained in preparation for introduction of AE measures
- Reference agricultural parcel identified
- LPIS software developed (through National co-financing)
- LPIS Unit within the DAP established and staff trained for LPIS implementation
- Pilot areas identified for the implementation of the Agri-Environmental measures (AE)
- Extension services fully informed on their role relating to the implementation of the AE measures
- AE fully implemented only in chosen areas with full support of LPIS in these areas

Progress will depend both on political will to bring about required changes internally within the Ministry, and capacity of the institutional structures to absorb change.

### **3.4 MEASURES/OPERATIONS<sup>9</sup> TO ACHIEVE RESULTS**

#### **Measure 1.1: Capacity building for upgrading of food establishments and for animal by-product management**

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<sup>9</sup> As defined in Article 6(2) of the IPA Implementing Regulation No 718/2006. IPA Component I programmes are subdivided into sectors (priorities), each of which define a global objective to attain and which shall be implemented through measures, which may be subdivided into operations, or directly through operations. Operations shall comprise a project or a group of projects (implemented by the Commission or the beneficiary country).

Support under this measure will concentrate on building capacity in the extension and advisory services, competent authorities, food associations and consumer groups, to enable improved understanding of hygiene and food safety requirements, and delivery of training to relevant persons operating within the agricultural sector. The measure will support development of strategies in two distinct areas: for upgrading of food processing establishments, and for animal by-product management. It will support the development of appropriate standards in the different sectors (e.g. meat and milk), as well as deliver training programmes for inspectors and a broader public awareness campaign. This measure will contribute to better understanding of EU environmental, food safety and hygiene standards, and will support implementation of the Serbian Food Safety Law and Law on Veterinary Matters. The measure will be implemented through a single twinning contract consisting of two components that will run in parallel, one component will focus on upgrading food establishments and the second component will address animal by-product management. Expertise from Member States will be obtained, focusing on developing legislation, standards, procedures, checklists and training.

The Measure builds on the CARDS 2005 Twinning Programme “Institutional Capacity Building for the Veterinary Directorate” which undertook (as one of five functions) an initial exploration of control and disposal of animal waste and animal welfare. This twinning undertook an initial assessment of the existing ABP management system and structural and hygiene conditions in rendering plants. The Measure proposed here will undertake a more strategic and broad based assessment of food processing and ABP establishments in order to develop national action plans and identify investment needs.

This Measure is strongly linked with preparations for IPARD implementation since the IPARD Programme for the IPA 2013 period anticipates two measures – investments in agricultural holdings (101) and investments in processing industry (103) in the sectors of meat, milk, fruit and vegetables. These measures will also form the backbone of the IPARD programme for the next EU financial perspective (2014-2020). In order to be eligible for assistance within measure 103 an applicant, when applying for assistance, has to reach minimum national standards in the field of animal health, public health, occupational safety. On the other side, potential beneficiary has to reach EU standards at the end of investments. Second important issue is that standards has to be checked on the spot which means that Veterinary inspection is considered as technical requirement for implementation of the IPARD programme. The end result would be an upgrade of standards of beneficiaries’ food establishments which would help raising absorption of IPARD funds.

### **Measure 1.2: Implementation of sustainable use of plant protection products and establishing systems for regular technical inspection of pesticide application equipment already in use**

This measure is required in order to implement the requirements of national legislation, specifically Articles 32, 44, 46, 48, 50 and 51 of the Law on Plant Protection Products (adopted in May 2009). Implementing the law will also contribute significantly to meeting some of the requirements of the EU Directive on Sustainable Use of Pesticides (2009/128/EC). According to the national law: all professional users, distributors and advisors involved with plant protection products must have appropriate training by a MAFTWM designated body; all pesticide application equipment in professional use is subject to inspections at regular intervals; and, the Law also calls for an introduction of the concept of integrated pest management. Implementation of national legislation will enhance capacity for Serbian practices to harmonise with EU legislation, which requires training for pesticide

applicators, equipment inspection, and improved controls in use of plant protection products.

The measure consists of two elements: one concerned with preparation for implementation of the Law (e.g. upgrading training for farmers and distributors, development of certification procedures, production of draft regulations, development of procedures and guidelines for integrated pest management, preparation of training materials, and undertaking training workshops); the other is concerned with provision of inspection of equipment for application of plant protection products already in use including training for persons designated by MAFTWM for inspection of equipment.

The project will support creation of a system of training, certification, recording and control according to the national legislative requirements that meet the *aquis* (even though the EU Directive is only now being implemented in the Member States many of the activities surrounding safe use of pesticides have been practiced for some time in all MS). The project will undertake a strategic overview of equipment required to implement the national legislation (related to inspection of equipment already in use) including development of a strategy for siting inspection equipment and inspection personnel, financing the system and for upgrading equipment. The project will improve administrative capacity creating trained staff able to undertake field control in these areas, and build capacity among distributors and professional users of plant protection products regarding use, risk management, inspection, and certification systems. The project will also provide the foundations necessary for undertaking of a more detailed set of activities in a future project programming period to develop a national action plan for sustainable use of pesticides which will ultimately reduce environmental burdens, cross-border pollution (air and water), and provide an impetus to more environmentally friendly agricultural systems (e.g. integrated pest management).

It is envisaged that this measure will be delivered through one twinning contract and one supply tender. The twinning contract will provide support to deliver a range of activities related to development of regulations, awareness raising, developing standards, guidance manuals, inspection and certification procedures, and training targeting persons designated by MAFTWM for inspection of equipment, training of distributors, and professional users of plant protection products. Use of expertise from one or more Member States with experience in dealing with similar problems, through a twinning contract, will be invaluable at this stage, and enable Serbia to focus attention on improving competitiveness of those sectors with highest potential for development, and/or export of produce. The proposed measure is timely in that it will build on recent previous donor support (e.g. USDA and USAID support for development of training manuals and farmer training) and IPA funding to develop capacity in the Plant Protection Directorate.

The supply tender will provide the necessary mobile measuring instruments for inspection of equipment already in use based on the existing indicative specification list developed by the Plant Protection Directorate. Requirements regarding storage and full utilisation of these mobile measuring instruments are already in place. These instruments do not require additional rooms (facilities) for their installation as they will be housed within Faculties in Belgrade and Novi Sad, Agricultural Services and Agricultural Schools. It is not possible to perform inspection of equipment already in use without necessary measuring instruments. A needs assessment has been completed that identifies the requirements for testing equipment in 33 locations across Serbia and in two Agricultural Faculties designated by MTFWM. The needs assessment indicated that, according to number of registered farms, maximising the number of locations for testing equipment would enable easier access for inspection of equipment already in use and reduce the level of disruption to farm operations. Training of

personnel at the 33 agricultural station and two agricultural school in handling and use of measuring instruments for inspection of equipment will be secured through the supply contract, and will build on previous training programmes, held in Dec 2010 and Feb 2011, organised by the Plant Protection Directorate and supported by the USAID Agribusiness project.

There is no sequencing between the two operations of this measure. Bearing in mind that the technical specification for the supply contract already exists, it is expected to purchase equipment at the early stage of the measure implementation to ensure it arrives in time and to enable the training to be performed on schedule through the twinning contract.

### **Measure 1.3: Continuation of support for the control/eradication of classical swine fever and rabies in the Republic of Serbia**

This project is an extension (continuation) of the Project entitled: “*Support of the Control/Eradication of Classical Swine Fever and Rabies in the Republic of Serbia*”, authorized from IPA 2008, IPA 2009 and IPA 2011 to assist Serbia to control and eradicate two high priority animal diseases (CSF and Rabies) not only in Serbia and neighbouring countries but in Europe as well.

In January 2010 the Veterinary Directorate started the IPA 2008 project to control CSF with significant results attained so far. Activities have included development of CSF control strategy and plans for non-vaccination policy. According to a recommendation given by IPA 2008 TA support, Serbia stopped the vaccination of wild boar in fenced hunting grounds in April 2011, which will help veterinary epidemiologists to better understand results from monitoring of this population. There is currently no vaccination programme for wild boars against CSF. According to assessment of available data and in close dialogue with relevant EU institutions and experts, including the Task Force for CSF, there is no need to vaccinate this population against CSF in Serbia with conventional vaccine. Developments of a marker vaccine supported by EU will be considered in the future.

Initially, the Ministry of Agriculture announced discontinuation of the CSF vaccination policy in September 2010 (or latest from 1.1.2011). Unfortunately, the VD detected two outbreaks of CSF in November 2010 (one on a large pig farm) and assessed a high risk of new outbreaks if vaccination would be stopped, especially on small backyard holdings. Significant development in the field of the strengthening of biosecurity on pig farms is demonstrated in veterinary sector in 2011 and resources for further development allocated in the agricultural budget for 2012. The future control strategy of CSF is based on a gradual and phased approach which includes gradual phasing out of vaccination of domestic pigs. At present Serbia controls the CSF via constant preventive mass vaccination.

According to the experience of other countries like Netherlands, Germany etc. the risk of possible disease spread after stopping of vaccination is constantly present because of wild reservoirs of virus, and due to the fact that entire population of pigs will be susceptible and not immune. The scale of possible outbreaks will be much bigger than in the case when mass preventive vaccination is practiced. According to the retrospective case control studies performed, and also according to Monte Carlo simulation methods, it is estimated that a possible outbreak could affect more than 30,000 animals in one outbreak and disease could spread over 40 settlements which means that we could expect more than 1800 tonnes of carcasses to be disposed.

In the current situation the available surveillance and laboratory equipment is appropriate for small scale outbreaks when preventive vaccination is main control measure. But preparedness

plan for non vaccination control strategy comprises more surveillance and laboratory equipment than that is already in place now which has to be purchased. In parallel work should be continued on raising awareness of farmers and stakeholders, improving biosecurity, conducting training, and also to allocate an emergency fund which is going to be used for indemnification, surveillance, disposal of animals, cost for labour, etc. Based on a simulation for possible outbreak with 30,000 animals and 40 settlements affected expected costs are as follows: indemnification: 2.547.169 €, disposal: 271.698 €, cleaning and disinfection: 15.094 € and for euthanasia: 56.603 € based on market prices for live animals, disposal services and cleaning and disinfection. Monte Carlo simulation assumes the worst case scenario.

The first national oral vaccination against rabies (ORV) in Serbia started in November 2010 and lasted 5 weeks during which a total 1.4 million of vaccines have been distributed across the whole country. A second (spring) vaccination was finished in May 2011. After delivery of surveillance and laboratory equipment to the VD, including diagnostics, monitoring of oral vaccination started in September 2011, and a third ORV (autumn 2011) was finished at the end of December 2011. Effectiveness and considerable success of ORV is expressed, among other indicators, by significant decrease of cases of rabies in 2011 (46 cases) in comparison with 2010 (106 cases) and 2009 (185).

The proposed IPA 2012 measure will evaluate the current CSF and rabies programmes, and update regulations to address bio-security measures on commercial and large farms, implement a vaccination programme where needed (backyard and open space holdings, risk zones, emergency vaccination, etc.), review and update regulations, standard operating procedures and contingency planning for all programme activities. It will also supply relevant response and surveillance equipment and continuation of training and awareness programmes for producers, veterinarians, farmers, keepers of animals, and other stakeholders.

This measure will be implemented through the following:

- one supply tender for purchase of vaccines for eradication programme for rabies in wildlife (mainly fox) population (three ORV campaigns, estimated 1.630.000 vaccine baits per campaign)
- a second supply tender for purchase of vaccines, for vaccinations of domestic pigs against Classical Swine Fever and laboratory investigations as a part of monitoring and surveillance programs for rabies and CSF in authorized and accredited laboratories
- a third supply tender for purchase of diagnostic and laboratory investigation supplies, surveillance and IT equipment and equipment for improvement of biosecurity measures on pig farms (divided in Lots). This tender for supplies is proposed in line with Ministry strategy to stop CSF vaccination policy as a control measure (according to EU legislation) on the territory of some regions or channels
- one service contract for verification of deliveries, development of the National Animal Diseases Compensation Fund and continuation of training programmes for MTFWM staff, veterinarians, pig farmers, and other stakeholders involved in the CSF and Rabies programmes, and general awareness raising for the general public.

**Measure 1.4: Development of a sustainable inspection services information system for the Ministry of Agriculture, Forestry and Water Management (MTFWM)**

Support under this measure will focus on developing more efficient agriculturally related IT management, communications and control systems (ITCM). It will include all administrative

and inspection services in the MTFWM covering food safety and risk management issues (Veterinary Directorate with Veterinary Inspection, Plant Protection Directorate with Phytosanitary Inspection and Agriculture Inspections – Competent Authorities (CA)).

The measure is based on principles of integration within the Ministry of agriculture and the need for achieving Cross Compliance goals. The Ministry and its competent authorities (CA) involved in standard setting and official controls in the field of food safety and agricultural payments will use the similar approaches to establishing registers as well as risk-based controls. Consequently, all field checks would be standardized and uniform but also supported with an up-to-date software platform which will enable Competent Authorities to make decision based on results of inspections/controls.

It is envisaged that this measure will undertake a needs assessment in order to identify clear organizational arrangements including description of line responsibilities. Furthermore the measure will undertake an analysis of system, software and application requirements in order to develop the necessary software platform and applications capable of integrating information management systems, based on web-based secure networks, and to establish monitoring, control and audit systems, which will enhance control and decision making in the area of food safety.

Applications in the Phytosanitary field include support for development of the following: Phyto register, Phyto lab, Phyto survey, Phyto GIS, Seed registers (Register of suppliers, marketing of seeds and propagating material), Register of national plant varieties, Registers of protected plant varieties, Records on marketing labels and seed quality, Register of plant protection products (PPP), Register of PPP shops, Records on annual selling of PPP, Records on education in PPP field, Records of testing of application equipment, GMO (Bio-safety Clearing House - BCH). Also, the Phytosanitary field must be covered by electronic document and records management system, WEB applications and Phyto-info – web portal.

In addition, new policies and strategies would be supported by reliable information based on official collection and evaluation information system. There are some positive examples of sustainable use of such modules which are fully operative for years, confirmed by official controls of European Commission (e.g. animal identification and registration control system in Veterinary Directorate assessed by Food and Veterinary Office audit teams).

There are operative systems in the Veterinary Directorate (animal identification and registration, animal disease notification system, laboratory information system etc.) implemented nationally and used by veterinary services as a whole (hundreds of authorized veterinary organizations) but there is strong need to integrate, re-develop and harmonize existing software and to develop new ones in correspondence with new EU requirements and Food Safety Law (registers of FBO's, border control system, RASFF and TRACES, integrative model for development and implementation of multi-annual and annual official controls of animal health, animal welfare and veterinary public health, modules for establishments of official animal disease statuses of holdings, regions or the country based on geo-referenced data, labelling of food and feed etc.).

A significant part of the Veterinary Directorate use the Document Management system but there is necessity to implement it across the whole Ministry in a standardized way enabling authorities to improve effectiveness of the service. Although there is significant improvement in the hardware capacities of the Veterinary Directorate, supported by the EU, there is a real need for knowledge transfer and development of supportive software platforms.

The measure will be implemented through one service contract (TA) which will assess the needs in three units of the MTFWM, analyse system and application requirements and proceed with system and software design. That means the strategy development has to be set up on basis of an organisational development activity, which will analyse the operational and organisational structure for the **inspection services information system** within the ministry and its involved directorates. The technical assistance has also to train the human resources to assume responsibilities after such a re-organisation process. It will also monitor the progress of design and development of software modules and applications for relevant inspection services and directorates. Finally the TA will also prepare specification for hardware, software implementation and license needs for the supply contract in the next IPA - programming year 2013.

The strategy development, the organisational development, a specific training programme for human resources in MATWFM and the elaboration of tender documents to cover the specifications of hardware and software for the entire system will be implemented through a single service contract in the framework for this measure.

### **Measure 2.1: Institutional capacity building and support to agriculture and rural development in Serbia for IPARD management**

Further harmonization with the EU IPA Implementing Regulation will require capacity building both within and outside of government bodies to prepare actions for the implementation of agri-environmental measures (Axis 2) and to strengthen development of the rural economy (Axis 3 measures). Areas that need to be developed include: further preparation for the new IPARD programme, development of procedures of the new measures envelope for operating structure within IPA Component V (DAP – future IPARD Agency and Managing Authority) from the point of new EU financial perspective 2014-2020; and communication and dissemination of information, including the role of extension services in awareness-raising activities. Support in this area would be expected to include development of legal and institutional framework for agri-environment schemes and development of rural economy programmes, procedural development, skills training (targeting MA and DAP staff and extension personnel) and awareness-raising. Furthermore support will include development of capacities in the Directorate for Agrarian Payments for introduction of an LPIS in Serbia, by undertaking a review of the state of play in the sector, defining the roles of actors in the system, definition of methodology for LPIS development, development of software for the implementation of LPIS and implementation of LPIS in chosen pilot areas to be covered by defined agri-environment (AE) schemes.

It is envisaged that this measure will be delivered through one twinning, one service contract and one supply tender (through National co-financing and not supported with IPA funding). The twinning contract is connected to capacity building within Directorate for Agrarian Payments (DAP – Future IPARD Agency (IA)) and MTFWM – The Unit for Rural Development (Managing Authority – MA), while a second service contract will focus on introduction of a land parcel identification system (LPIS) as a key element for the future leading role of the Directorate for Agrarian Payments in development of an IACS system pursuant to the Council Regulation 73/2009.

As a part of preparation for the establishment and strengthening the IPARD operating structure there is on-going IPA 2007 TW project within MTFWM (namely within the Directorate for Agrarian Payments and Sector for Agrarian Policy and International Cooperation). The main results of this TW will be preparation of the procedures for the implementation of an IPARD programme starting from late 2013 for measures 101

(investments in agricultural holdings) and 103 (investments in processing industry), as well as for the measure of technical assistance 501. IPA 2007 Twinning is expected to be extended until the end of 2012.

IPA 2007 will produce an IPARD 1 Programme that will set procedures for accreditation. Nevertheless, during the self-assessment and external audit assessment some issues may arise which would have to be settled with needed expertise. Also, MA and DAP will need to prepare the IPARD programme for the new financial perspective starting in 2014. It is essential to avoid any gaps in IPARD implementation, and therefore, EU assistance will be followed by two Twinning light projects that will plug the gap between IPA 2007 and IPA 2012 assistance. They will most probably start in January 2013 and will last for 6 to 8 months and will be focused on:

- Managing Authority – development of IPARD 2 programme (definition of measures, preparation for subsector analysis, further trainings on IPARD 1 programme)
- IPARD Agency – further training of employees and possible review of procedural arrangements, if necessary, depending on external audit findings

In addition to this, National Fund (within Ministry of Finance) has been awarded Framework Contract as well, aiming to support NF structures for IPARD.

IPA 2012 will continue upgrading of defined IPARD 2 programme measures and developing the legal framework and procedures both for the MA and IPARD Agency (IA), including preparation for relevant activities, such as preparation of extension services for publicity, training for MA and IA etc.

LPIS introduction will be carried out through a service contract and supply tender. The supply tender is based solely on National financing. The service contract will last two years, and within the first implementation year a strategic assessment and development of the methodological approach for LPIS establishment will be undertaken, along with a definition of an ‘Agricultural reference parcel’, establishment of LPIS unit within the DAP and technical specification of software needs for LPIS. At the beginning of the second year of the service contract implementation, a supply tender (using national funds) will be launched for procuring software for LPIS introduction and setting up the software in place with capacity for full coverage of the territory of the Republic of Serbia. The final goal of both operations is to ensure full implementation of the LPIS software only in defined pilot areas where AE measures will be implemented. The project will make use of a Geographical Information System developed within the Geodetic Authority as the technical basis of a future LPIS in Serbia and possible interlinks between two institutions. In order to define the right methodology and identify the relevant reference agricultural parcel a service contract will identify pilot areas in Serbia for testing the LPIS implementation. Timing is of crucial importance (see picture 1.1 which identifies the timing for developing capacity to undertake IPARD activities), since it is envisaged that the Twinning contract should deliver procedures for the implementation of the Axes 2 measures by the end of the project, while on the other hand LPIS for selected areas has to be prepared to fully support implementation of AE measures in those areas.

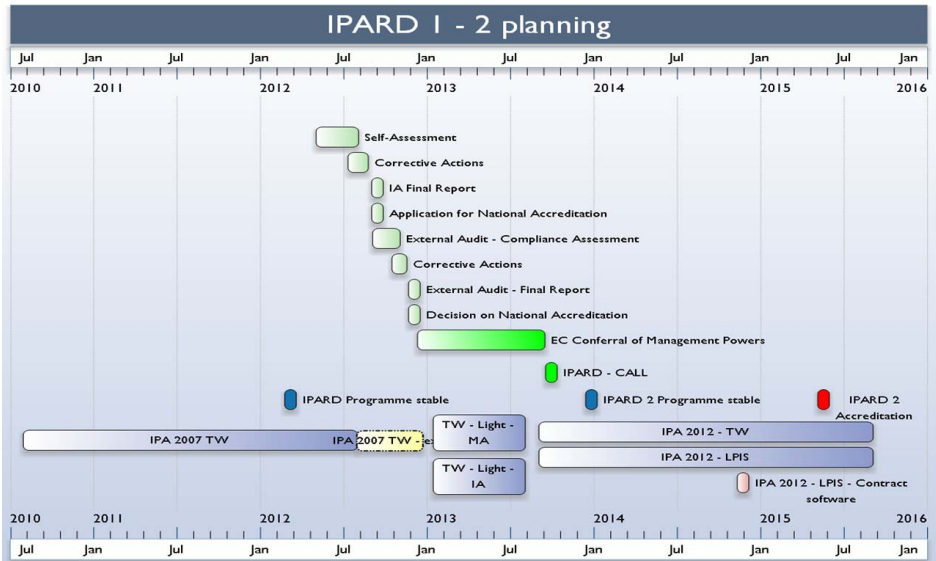
The logical continuation of this project will follow in the upcoming IPA programming periods by extending the LPIS over the whole territory of the Republic of Serbia.



Activities under IPA 2012 are expected to begin by the end of 2013. The major deliverables would be development of at least two new measures based on the 2014-2020 EU strategy, training of extension services for improved programme implementation, technical assistance for preparation and implementation of communications relating to IPARD 2014-2020, and development of procedural arrangements related to the new measures.

Thus the proposed activities under IPA 2012 form a logical continuation of the IPA 2007 project, which will further strengthen operating structures for IPA Component V and foster integration of Serbian Agriculture with the EU CAP in the coming years, including preparatory development of LPIS as a substantial part of the IPA 2012 package.

Picture 1.1



**3.5 OVERVIEW OF PAST OR ONGOING ASSISTANCE, LESSONS LEARNED, MECHANISMS FOR DONOR COORDINATION/SECTOR WORKING GROUP AND/OR POLICY DIALOGUE**

In the five annual programmes 2007-2011, IPA Component I has financed the following projects in the agriculture and rural development sector:

**IPA 2007 (In implementation phase)**

- Strengthening the capacities of the Republic of Serbia for the absorption of EU Rural Development funds in the pre-accession period

**IPA 2008 (In implementation phase)**

- Support for the Control/Eradiation of Classical Swine Fever and Rabies in the Republic of Serbia
- Harmonisation of national legislation with EU legislation for placing on the market and control of Plant Protection Products and implementation of new legal provisions
- Capacity Building and Technical Support to Renewal of Viticulture Zoning and Control of Production of Wine with Designation of Origin

**IPA 2009 (In tendering and contracting phase)**

- Support for the Control/Eradication of Classical Swine Fever and Rabies in the Republic of Serbia – Publicity services for Rabies and Classical Swine Fever Vaccination Campaigns and Supply of rabies vaccines and equipment for surveillance of animal diseases,

#### **IPA 2010 (In implementation phase)**

- Equipment and courier service supply and capacity building of Serbian National Referent Laboratories Directorate
- Establishment of the Serbian Farm Accountancy Data Network (FADN)

#### **IPA 2010 (In contracting phase)**

- Effective Land Management (that will be implemented through delegation agreement with GIZ)

#### **IPA 2011 (In tendering and contracting phase)**

- Support for Food Safety, Animal Welfare and Control/Eradication Classical Swine Fever and Rabies,

**Upgrading of Food Chain Safety Laboratories (FCSL) and Animal Identification -** (8,500,000 €), Donor – EU Delegation – according to Memorandum of Understanding on the management of Counterpart Fund – Food Aid. Projects in implementation continuously through 5 tranches from June 2004.

**Construction and reconstruction works on Preševo and Batrovci border crossings,** Donor – EU Delegation – according to Memorandum of Understanding on the management of Counterpart Fund – Food Aid Programme. In implementation continuously through tranches, from June 2004.

#### CARDS

- **Institutional capacity building in Plant Protection Directorate** (CARDS 1,500,000€), finished in May 2011.
- Twinning Programme “**Institutional Capacity Building for the Veterinary Directorate**” CARDS 2005

#### Other Donors

Other donors are also contributing to the adoption of agri-environment and agri-business schemes, and rural development, with support from Germany Japan, Netherlands, Norway, Romania, Spain, Sweden, United Nations and United States. This includes: support to the Ministry of Agriculture, Forestry and Water Management (MAFWM) to develop its economic research capacity (US, Germany) and phyto-sanitary, veterinary, veterinary inspection and milk testing capacities (Netherlands); targeted assistance on plant genetic resources (Sweden), domestic fertilizer (Japan) and biodiversity, and the development of a National Agri-Environment Programme (Netherlands); increasing the competitiveness of agri-businesses (United States, Germany) and helping farmer cooperatives (Norway, Germany); support to introduction of organic farming, supporting partnerships to revitalise rural areas based on the LEADER approach (Germany , UNDP and Romania); and finally, facilitating the development of sustainable rural tourism (Germany , UN and Spain). Examples are illustrated below.

- **Capacity building for inspection services** (Dutch Government through G2G program 300,000 €), Beneficiary – Veterinary Directorate, Started in January 2011, planned duration 3 years
- **Capacity assistance to the milk testing lab 2010** (Dutch Government through G2G program 100,000 €)
- **GIZ – KWD** “Municipal Economic Development in Danube Region” -10 municipalities in Eastern Serbia receive technical assistance of 4 million euro in the period 2010-2012. Vision of the project is to contribute to overcoming social, regional and economic imbalances in area. Main topics of action are defined as follows: tourism development, rural development, competitiveness promotion and capacity building at national, regional and local level.
- The **ACCESS** program implemented by the GIZ on behalf of the German Ministry for Economic Cooperation and Development (BMZ), aims to further Serbia’s economic development and facilitate the country’s future membership in the European Union (EU) by supporting the implementation of the Serbian National Strategy for the Development of Small and Medium-sized Enterprises and Entrepreneurship, as well as the National Strategy for EU Accession.
- **Sustainable tourism in rural development** (Kingdom of Spain – through Millennium Development Goals Fund – 4,000,000 \$). Project has started on 4 December 2009, planned duration is until 4 May, 2012.
- **Partnership for revitalization of rural areas** (Government of Romania – 200,000 €)
- **Support to the Agricultural Sector of Serbia through Vitalization of Domestic Fertilizer Production** (Government of Japan – 202,741,216.28 RSD). First phase started in 2007 and completed in October 2008, second phase is planned until December 2011
- **Support sustainable development of dairy sector in Šumadija** (USAID-6,652,600 RSD). Project started in August 2010, project activities are in progress
- **Serbian Transition Agriculture Reform (STAR)** (World Bank – 12,496,889.97 € and GEF – 3,306,853.04 €. Duration September 2008 – December 2011.
- **USAID Technical Assistance to Serbia.** USAID Agrobusiness Project is helping Serbia to develop a system for education of farmers for safety and environmentally friendly use of plant protection products.
- **USDA Technical Assistance to Serbia has addressed the following:** strengthening regulatory systems for production and processing of food products through facilitating the establishment of an integrated food safety system; collecting information and analysing alternative policy scenarios and assessing their impacts on domestic markets and requirements for Serbia accession to the WTO and EU; developing and adopting regulations and public-private partnerships; building veterinary sector’s capacity to prevent and treat animal diseases; strengthening risk assessments for the import and export of animals; developing an effective system for rapid response and distributing information; training extension agents (public and private) to provide educational and technical information that will assist farmers in responding to issues affecting farm management and production; establishing a trade regime that is consistent with the WTO/CODEX and other international standards-setting bodies; establishing a system

for grading and standards for different agricultural commodities, such as fresh and frozen fruits and vegetables.

- **Development of the Financial System in Rural Areas (KfW)** - The overall objective of this EUR 45.5 million grant-loan programme financially supported by German Development Bank (KfW) is to promote rural development and modernisation of the agricultural and food processing sectors by providing SMEs and farms in rural areas with favourable loans through commercial banks and micro-finance institutions. The loans will be complemented by technical assistance to support banks in developing adequate financing products as well as creating awareness among SME and farmers in rural areas to decrease existing barriers to finance from their end.

#### Linkages between IPA and other donor assistance

IPA funding has been focused in a relatively small number of activities, namely support for control of Rabies and CSF (this also provides valuable cross-border impacts as activities are co-ordinated with neighbouring countries), legislative development in relation to plant protection products, capacity building in relation to rural development, support for upgrading national reference laboratories, and food safety laboratories, support for viticulture, and more recently for developing a Farm accounting data network (FADN).

Although considerable interest has been shown in twinning projects, this requires a high level of organisation on the part of beneficiaries. A key issue has been inability of the beneficiary country to absorb all the funds from previous years' projects (for example, spending on laboratories equipment), due to inadequate preparation of facilities. In addition institutional and legal issues (e.g. long licensing and permitting procedures) have slowed down project implementation<sup>10</sup>.

It can also be seen that additional donor funding has been concentrated in two main areas: capacity building and plant genetic resources support in the Plant Protection Directorate, food chain laboratories and animal identification systems, a pilot project on rural development and sustainable agriculture (STAR), support for the berry and soft fruit sector, fertiliser production, and support for dairy farming in a localised area. Smaller amounts have been donated for farmer cooperatives and localised rural development projects. There is also a range of USAID/USDA funded projects (listed above), which appear to be more narrowly targeted at specific issues and about which little is known, either in terms of investment, impact, or effectiveness.

#### Summary of key achievements/impact via project support.

- Multi-annual support for control of Rabies and CSF which is likely to have significant impact in the reduction of incidence of diseases. Initial indications suggest a decline of cases Rabies in 2010 (by 43%) and in 2009 (by 75%) in comparison with 2009.
- The STAR project has increased understanding of how sustainable agriculture and rural development might be achieved in Serbia through implementation of a pilot project. In addition the ecological value of the Stare Planina area has been improved and local farmers in the area have benefitted from investment. A range of measures

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10 Report on International Assistance to the Republic of Serbia in 2008, Ministry of Finance, Belgrade (2009)

have been developed and tested and can be utilised as a basis for developing programmes applicable across other parts of Serbia.

- IPA funding has resulted in harmonisation of Serbian legislation, particularly in the area of Plant Protection, and donor support has provided initial capacity building in regard to use of PPP and integrated pest management.
- The wine growing sector has been improved through capacity building that now enables growers and producers to obtain PDO labels.
- National reference laboratories have been upgraded.
- A FADN is currently being developed through a twinning project
- The fruit and berry sector is currently receiving support to improve production and marketing.

Many of the other projects are small and/or locally focused and benefits are largely unknown.

#### Rationale for the selected priorities for 2012

Although a large number of projects have been funded over the period 2004-11 the sector has suffered from lack of a unified long-term strategy, which has resulted in a failure to address many of the structural weaknesses affecting the whole sector. While many projects have been carried out, and significant expenditure has been made, they have not been linked to any overarching strategy, and outside of the Veterinary and Phytosanitary sectors there has been a failure to build on earlier project success. Donor support has not been coordinated and lessons learned from pilot or small scale projects have not been disseminated (the STAR programme may be the exception here). Some areas have received high levels of support while others have been ignored, and the main institutional weaknesses affecting the sector have not been addressed. The most significant cross-sector issues that require attention relate to:

- Inspection services and the capacity to transfer information
- Production and processing standards (particularly meat and milk)
- Monitoring and evaluation systems
- Integrated cross-sector policy making
- Awareness raising (among producers, processors and consumers)
- Land and farmer identification systems

These activities have been identified through the sector-wide analysis undertaken in 2010-11 and have been selected for action as they underpin all other activities in the sector and are essential if the sector is to modernise and become more competitive. The 2012 priority measures have developed from deeper investigation of needs and from a more strategic view of agriculture undertaken by MTFWM with input into the discussion from CSOs and donors. The aim of the 2012 measures described below is primarily to address the structural weaknesses in inspection and information systems required for effective implementation of legislation:

Measure 1.1 – designed to improve standard and inspection systems in the production and processing of milk and meat products and ABP Management.

Measure 1.2 – utilises earlier capacity building projects to provide essential equipment to improve application of plant protection products, and protect worker and environmental health

Measure 1.3 – continues previous programme funding to eradicate animal disease, with significant long-term and cross-border benefits

Measure 1.4 – aims to develop a strategy for integrated inspection systems across the sector through standardisation of procedures and capacity for improved communications

Measure 2.1 – will build on lessons learned from the STAR project to establish the foundations for a LPIS which will underpin future agricultural support systems and rural development across Serbia.

### **3.6. SUSTAINABILITY**

The proposed measures include capacity building as an essential element to developing an effective and sustainable sector. There is always a danger that training personnel to a high level makes them attractive to the private sector, especially where there is a large disparity in financial re-numeration. One way to minimise this risk is for MTFWM to develop more effective career structures, particularly within the inspectorate services. The inspectorate service currently has no career structure and higher qualifications do not provide inspectors with any scope for advancement, which is a disincentive to training and creating a more professional service. It also contributes to other problems: for example, bribery is common and there is a lack of effective oversight resulting in poor quality enforcement of standards and regulations.

Sustainability will be achieved through the interaction of the programmes, measures, and institutional changes implemented over the period. Sustainability is dependent on effective regulatory change, financial resources to support changes, improvements in human capital (i.e. through training), and the political will to ensure effective enforcement and implementation of new legislation and regulations. In addition, all those affected by regulatory or institutional change must be persuaded of the benefits of change. Sustainability is thus dependent on all stakeholders being in broad agreement to the direction of change, which implies putting in place participatory decision making processes. The key elements that will ensure sustainability of the changes are described below.

#### Capacity building:

- will serve as a foundation for taking on additional responsibilities as more elements of the Rural Development Regulation and CAP are implemented in Serbia;
- improve ability of inspectors to deal with food safety, animal health and welfare, and plant health, and will raise the level of regulatory enforcement across the food safety sector;
- create a body of knowledge regarding food safety standards within the VD and will be invaluable as the Serbia seeks to improve food safety in other sectors (beyond meat and dairy);
- will ensure training of new recruits continues into the future as personnel leave or retire;
- raise awareness among other stakeholders (i.e. industry, consumers, and other relevant operators within the agribusiness);
- raise consumer confidence in food safety and encourage greater consumption of food processed within Serbia.

#### Investment will:

- strengthen and modernise protection systems that will have an impact on quality of products and infrastructure
- modernise IT and communications systems which will improve capacity to implement policy and enforce regulations in a more uniform manner across the country

#### Legislation and standards:

- Sustainability is ensured through further harmonisation of a legal framework and establishment of the institutional and organizational mechanisms for the implementation and full enforcement of the transposed legislation.

#### Impact:

- Project results have major cross-sector impacts, including agriculture, phytosanitary measures, environment, health and trade related aspects.
- Raising the quality of food products (in the meat and milk sectors), and value of the domestic livestock sector, will contribute to Serbia's efforts to increase the level and number of products that can be exported leading to a more competitive agriculture in Serbia.
- Higher quality produce will result in improved demand, creating and/or protecting employment and make the agricultural sector more sustainable.

### 3.6 ASSUMPTIONS AND PRECONDITIONS<sup>11</sup>

Risks identified in relation to IPA sector support are following:

**Absorption capacities for available EU funds** – During the previous years, various efforts have been undertaken by relevant national authorities in Serbia to enable a higher absorption of EU funds. Special attention should be assigned to setting up of each programme's comprehensive monitoring and evaluation systems, a careful targeting and preparation of programme potential beneficiaries and extensive training should be provided to programme administration and institutions involved.

**Ability to enforce and implement (particularly recently adopted) legislation** – through IPA support significant time and effort will be invested in building the capacities to implement and enforce transposed legislation. In parallel a wider group of stakeholders will be included in the educational, awareness raising, and training programmes, to encourage new ways of thinking and acceptance of regulations.

The reform of the wider food safety sector requires **reaching consensus between the Ministries and other institutions involved in control of the food chain**, in particular with respect to clear definition and division of responsibilities and introduction of systems and procedures aligned with the EU requirements and best practices.

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<sup>11</sup> Assumptions are external factors that have the potential to influence (or even determine) the success of a project but lie outside the control of the implementation managers. Such factors are sometimes referred to as risks or assumptions but the Commission requires that all risks shall be expressed as assumptions. Pre-conditions are requirements that must be met before the sector support can start.

**Timely implementation of operations** – in order to ensure adequate and timely delivery of the results. In the case of twinning, a possibility exists that twinning providers may be insufficiently motivated or equipped to prepare the project in time, and the beneficiaries may have insufficient leverage to enforce this.

#### **4 IMPLEMENTATION ISSUES**

All the envisaged measures/operations will be implemented by the Ministry of Agriculture, Forestry and Water Management and its respective Directorates. In case of operations that will be delivered through twinning contracts, implementation will be a shared responsibility between beneficiary and twinning mandated bodies. These twinning providers should be part of the public administration in their own country, or a semi-public organisation performing a public task, delegated by the Administration and will ensure availability of an RTA and experts from the public administration.

##### **4.1 INDICATIVE BUDGET**



**Indicative budget (amounts in EUR) (for centralised management)**

SECTOR TITLE			TOTAL EXPENDITURE	SOURCES OF FUNDING								
				IPA CONTRIBUTION		NATIONAL CONTRIBUTION					PRIVATE CONTRIBUTION	
	IB (1)	INV (1)	EUR (a)=(b)+(c)+(d)	EUR (b)	%(2)	Total EUR (c)=(x)+(y)+(z)	% (2)	Central EUR (x)	Regional/Local EUR (y)	IFIs EUR (z)	EUR (d)	% (2)
Measure 1.1												
Operation 1.1.1 (TW)	X		2.000.000	2.000.000	100							-
Measure 1.2												
Operation 1.2.1 (TW)	X		1.300.000	1.300.000	100							-
Operation 1.2.2 (Supply)		X	1.200.000	1.200.000	100							-
Measure 1.3												
Operation 1.3.1 (Supply-rabies)		X	3.500.000	3.500.000	100							
Operation 1.3.2 (Supply CSF)		X	1.600.000	1.600.000	100							
Operation 1.3.3 (Supply Tender)		X	1.000.000	1.000.000	100							
Operation 1.3.4 (TA)	X		1.000.000	1.000.000	100							
Measure 1.4												
Operation 1.4.1 (TA)	X		1.500.000	1.500.000	100							
Measure 2.1												
Operation 2.1.1 (TW)	X		1.500.000	1.500.000	100							
Operation 2.1.2 (TA LPIS)	X		1.000.000	1.000.000	100							
Operation 2.1.3. (Supply LPIS)		X	1.500.000			1.500.000	100	1.500.000				
TOTAL IB			8.300.000	8.300.000	100							
TOTAL INV			8.800.000	7.300.000	78	1.500.000	17.05	1.500.000				
<b>TOTAL SECTOR SUPPORT</b>			<b>17.100.000</b>	<b>15.600.000</b>	<b>91.6</b>	<b>1.500.000</b>	<b>8.8</b>	<b>1.500.000</b>				

NOTE: DO NOT MIX IB AND INV IN THE SAME OPERATION ROW. USE SEPARATE ROW

Amounts net of VAT

(1) In the Operation row, use "X" to identify whether IB or INV (2) Expressed in % of the Total Expenditure (column (a))

## 4.2 INDICATIVE IMPLEMENTATION SCHEDULE (PERIODS BROKEN DOWN PER QUARTER)

Operations	Start of Tendering/ Call(s) for proposals	Signature of contract(s)	Activity Completion
Operation 1.1.1 (Twinning)	T+1Q	T+3Q	T+11Q
Operation 1.2.1 (Twinning)	T+1Q	T+3Q	T+11Q
Operation 1.2.2 (Supply)	T+1Q	T+4Q	T+8Q
Operation 1.3.1 (Supply Rabies)	T+1Q	T+3Q	T+11Q
Operation 1.3.2 (Supply CSF)	T+1Q	T+3Q	T+11Q
Operation 1.3.3. ( Supply Tender divided into LOTs)	T+1Q	T+3Q	T+11Q
Operation 1.3.4 (TA)	T+1Q	T+3Q	T+11Q
Operation 1.4.1 (TA)	T+1Q	T+3Q	T+11Q
Operation 2.1.1 (Twinning)	T+1Q	T+3Q	T+11Q
Operation 2.1.2 (TA)	T+1Q	T+3Q	T+11Q
Operation 2.1.3 (Supply – National Co- financing)	T+5Q	T+7Q	T+9Q

### *Timing and Sequencing*

**Measure 1.1** - will be implemented through single twinning contract made up of two components: one for upgrading food establishments, and one for Animal by-products Management (Operation 1.1.1).

**Measure 1.2** - will be delivered through one twinning contract (Operation 1.2.1) and one supply tender (Operation 1.2.2). The technical specification for the equipment required already exists and will enable the supply tender to be launched during the early part of the project. There are no sequencing issues between these two contracts.

**Measure 1.3** - will be implemented through two supply tenders (Operation 1.3.1 purchase of vaccines for oral vaccination of wild carnivores (rabies)), (Operation 1.3.2 Purchase of vaccines against CSF for emergency vaccination in the case of outbreaks of CSF), one supply tender with multiple LOTs (Operation 1.3.3 Purchase of diagnostics and laboratory investigation supplies, surveillance and IT equipment and equipment/other items for improvement of biosecurity measures on pig farms/holdings); and one service contract (Operation 1.3.4). The supply tenders for vaccines and other medical supplies and equipment must be launched early in the project time frame in order to ensure adequate and timely arrival of the needed equipment and supplies. Apart from that there is no sequencing issue for this project.

**Measure 1.4** - will be implemented through one service contract (Operation 1.4.1) .

**Measure 2.1** - will be delivered through one twinning (Operation 2.1.1 related to to capacity building within Directorate for Agrarian Payments) one service contract (Operation 2.1.2 concerned with strategic assessment and development of the methodological approach for LPIS establishment) and one supply tender (Operation 2.1.3 – **National co-financing – setting up software for LPIS in place**). Duration of the service contract will be two years

and it should be initiated during the early part of the project, while the supply tender (National Co-financing) should be signed at the second year of the project implementation. Planning of the twinning contract is in line with envisaged finalization of IPA 2007 TW project (that is expected to phase out at the end of 2012), and implementation of the two twinning light projects that are expected to start in January 2013.).

Tendering documents, such as Terms of References and Twinning Fiches will be prepared by the beneficiaries (Ministry and respectful Directorates) in close cooperation with SEIO and EUD. It is intended to use external experts to assist with development of Terms of reference and preparation of the twinning fiches. This can be completed through the Project Preparation Facility (PPF) or a framework contract.

### **4.3 CROSS CUTTING ISSUES**

#### ***4.3.1 Equal Opportunities and non discrimination***

The proposed measures/operations will be equal opportunity sensitive and ensure access of women, disabled and elderly, particularly with regard to access to training and increasing opportunities for business expansion, employment and career advancement. Gender, disability and old age needs will be considered as an integral part of the programme and especially under the National Rural Development Programme, with regular monitoring to ensure these issues are given due prominence.

#### ***4.3.2 Environment and climate change***

Proposed measures/operations have direct impact upon the environment, laying down a solid basis for the development of the High Nature Value Farming through further implementation of the Agri-Environmental measures thus securing solid ground for the environmental protection in Serbia. As such there is enormous indirect potential to reduce the negative environmental impacts of agricultural activities and enhance positive benefits through encouraging adoption of agri-environment schemes. Furthermore, improved controls over food processing and animal by-product (ABP) management will lead to reductions in illegal dumping and inappropriate disposal of food waste and ABP, and also contribute to reductions in spread of disease, and soil and water pollution. Also, development of reduce inputs of agri-chemicals and more sustainable use of pesticides leading to improved bio-diversity, reductions in pollution of soils, air and water, and reduced adverse environmental and human health impacts.

#### ***4.3.3 Minorities and vulnerable groups***

The programme will be sensitive to minority issues and will ensure access for all ethnic groups to resources and services. The needs of minorities will be considered as an integral part of the programme. Ethnic minorities may benefit to a greater extent as current ABP disposal practices are more likely to occur closer to low income housing areas.

#### ***4.3.4 Civil Society/Stakeholders involvement***

A consultation mechanism with civil society organisations (CSOs) has been developed in order to enable their participation in programming and monitoring of EU funds and other international development assistance. A consultation mechanism with CSOs recognises the main actors in the process as Sector Civil Society Organisations (SECOs). SECO is a consortium of CSOs of maximum three partners where one is clearly defined as a lead partner

in the application. By 25<sup>th</sup> February 2011 SECOs had been selected in six sectors, among which is the Sector for Agriculture and Rural Development, comprising Agronet, Serbian Rural Development Network and NIMBUS (leading partner is Agronet). So far SECO organised four consultative workshops focusing at the topics related to EU integration process in the area of agriculture, in particular rural policy, as one of the first for which financing from pre-accession funds will be available, as well as on financial and timeframes of EU integration in agriculture and rural development.

## ANNEX 1: Logical framework matrix for sector support in standard format

LOG FRAME PLANNING MATRIX FOR Sector Fiche		Contracting period expires 3 years after the signing of the Financing Agreement		Execution period expires 5 years after the signing of the Financing Agreement			
Support to Agriculture and Rural Development		Total budget	17.100.000 EUR				
		IPA budget:	15.600.000 EUR				
<b>National sector or sub sector objective</b>		<b>Objectively verifiable indicators (OVI)</b>		<b>Sources of verification</b>			
<p><b>Overall objective</b> of the IPA sector support is modernisation of agriculture and development of a vibrant rural sector, as well as achieving progress in transposition of the <i>acquis</i> and alignment with the Common Agricultural Policy's (CAP) principles and objectives.</p>		<ul style="list-style-type: none"> <li>Improvements in management of agricultural activities</li> <li>Further progress establishing systems for control in line with CAP requirements</li> <li>Continued transposition and implementation of the <i>acquis</i></li> </ul>		EC Progress Report			
<b>Sector support objective within the MIPD sector</b>		<b>Objectively verifiable indicators (OVI)</b>		<b>Sources of Verification</b>		<b>Assumptions</b>	
<p>Improve capacities within state institutions for policy formulation and implementation with respect to agriculture and rural development;</p> <p>Further strengthen the food safety and veterinary sectors with a particular focus on the national system of laboratories for food chain control, animal welfare, control of diseases and controls at external borders</p>		<ul style="list-style-type: none"> <li>Progress in developing administrative capacities to manage IPARD instruments and in achieving system accreditation</li> <li>Improvements in transmission and quality of data on agricultural activities within state institutions</li> <li>Improving trend in compliance with new standards and regulations in food safety, animal health and welfare and plant health</li> <li>Decrease in number of outbreak of diseases and time needed for their control due to introduced modern IT system and risk control structures (in particular Classic Swine Fever and Rabies)</li> </ul>		EC Progress Report Paying Agency Report Reports of the Veterinary and Phytosanitary Directorates National Statistic Yearbook FVO reports		<ul style="list-style-type: none"> <li>Serbia's EU integration orientation</li> <li>Political and economic situation is favourable and enables all operators in agribusiness to adapt to higher standards</li> <li>Inspection systems are integrated and streamlined</li> </ul>	
<b>Results of the sector support</b>		<b>Objectively verifiable indicators (OVI)</b>		<b>Sources of Verification</b>		<b>Assumptions</b>	
<p><b>Result 1:</b> Enhanced system of food safety, consumer health and safety, transparency, and a reliable agricultural inspection system in the Republic of Serbia in line with EU standards.</p> <p><b>Result 2:</b> Strengthened institutional capacity of relevant authorities to carry out tasks and responsibilities for management of rural development pre-accession funds in accordance with relevant EU regulations.</p>		<p><b>Measure 1.1</b></p> <ul style="list-style-type: none"> <li>Further progress in transposition and implementation of the <i>acquis</i> in the area of food safety, animal health and welfare</li> <li>Adoption of a strategy for control of ABPs</li> <li>Identification of problems associated with food processing by inspectors trained to carry out activities in relation to control of food safety, animal health and welfare and plant health standards</li> <li>Improving trend in attainment of health and safety standards in meat and milk processing establishments</li> </ul> <p><b>Measure 1.2</b></p> <ul style="list-style-type: none"> <li>Adoption of secondary legislation for implementation of the Law on Plant Protection Products (PPPs) relating to their sustainable use including integrated pest management, setting up training and certification of end users and distributors of PPP's and inspection of equipment for application of PPP's already in use.</li> </ul>		EC Progress Report Paying Agency Report Reports of the Veterinary and Phytosanitary Directorates National Statistic Yearbook FVO reports Rule book on internal organisation and job classification of WP in MTFWM		<ul style="list-style-type: none"> <li>Support and agreement of key stakeholders</li> <li>Sufficient technical and professional capacity available in order to implement legislation</li> <li>Effectiveness of disease control programmes</li> </ul>	

	<ul style="list-style-type: none"> <li>● Adoption of a national strategy for implementing a sustainable use of PPP's</li> </ul> <p><b>Measure 1.3</b></p> <ul style="list-style-type: none"> <li>● Reduction in number of outbreaks of CSF and cases of rabies in comparison to the previous year</li> <li>● Adoption of a national programme for improvement of bio-security on pig farms .</li> <li>● Establishment of a national compensation fund for farmers affected by animal diseases.</li> </ul> <p><b>Measure 1.4</b></p> <ul style="list-style-type: none"> <li>● Strategy for development prepared on basis of an organisational development activity (analysis of the operational and organisational structure ) and adopted by the relevant Competent Authorities (CA)</li> <li>● Training programme prepared and conducted assuming responsibilities after re-organisation process</li> <li>● An analysis of system requirements and recommendations for creation of information technology and management and communications (ITMC) systems prepared.</li> <li>● Prepared technical specification for software development</li> <li>● Software modules and applications for CA developed</li> <li>● Prepared technical specification of hardware and licenses needs for the supply contract for next IPA programming year 2013</li> <li>● <b>Measure 2.1</b>Additional information for the IPARD Programme developed for the inclusion of the new rural development measures</li> <li>● Procedures developed for the implementation of the chosen Axes 2 and Axes 3 measures , as well as monitoring and evaluation strengthened</li> <li>● Extension services trained through Train the Trainer approach and prepared for publicity (dissemination of information to farmers and promotion of IPARD programme in the field)</li> <li>● Technical/delegated bodies prepared for their role relating to the implementation of IPARD</li> <li>● DAP and MA staff trained in preparation for introduction of AE measures</li> <li>● Reference agricultural parcel identified</li> <li>● LPIS software developed (through National co-financing)</li> <li>● LPIS Unit within the DAP established and staff trained for LPIS implementation</li> <li>● Pilot areas identified for the implementation of the Agri-Environmental measures (AE)</li> <li>● Extension services fully informed on their role relating to the implementation of the A measures</li> <li>● AE fully implemented only in chosen areas with full support of LPIS in these areas</li> </ul>		
<b>Measures to achieve results</b>	<b>Means / operations and Costs</b>	<b>Assumptions</b>	
<b>Measure 1.1:</b> Capacity building for upgrading of food establishments and for animal by-product management	<b>Indicative EU contribution: EUR 2.0 m</b> Operation 1.1.1. Twinning contract : EUR 2.0 m	<ul style="list-style-type: none"> <li>● Sufficient technical and professional capacity available in order to carry out the operations</li> <li>● Timely implementation of the</li> </ul>	
<b>Measure 1.2:</b> Implementation of sustainable use of plant protection products and establishing systems for regular technical inspection of pesticide application equipment already in use	<b>Indicative EU contribution: EUR 2.5 m</b> Operation 1.2.1. Twinning contract: EUR 1.3 m		

	Operation 1.2.2. Supply tender: EUR 1.2 m	
<b>Measure 1.3:</b> Continuation of support for the control/eradication of classical swine fever and rabies in the Republic of Serbia	<b>Indicative EU contribution: EUR 7.1 m</b> Operation 1.3.1. Supply tender rabies EUR 3.5 m Operation 1.3.2. Supply tender CSF EUR 1.6 m Operation 1.3.3. Supply Tender with multiple LOTS: EUR 1.0 m Operation 1.3.4. Service contracts: EUR 1.0 m	<p>operations</p> <ul style="list-style-type: none"> <li>• Relevant IPA Component I projects having successfully contributed to building institutional capacities</li> </ul>
<b>Measure 1.4:</b> Development of a sustainable inspection services information system for the Ministry of Agriculture, Forestry and Water Management	<b>Indicative EU contribution: EUR 1.5 m</b> Operation 1.4.1. Service contract: EUR 1.5 m	
<b>Measure 2.1:</b> Institutional capacity building and support to agriculture and rural development in Serbia for IPARD management	<b>Indicative EU contribution: EUR 2.5 m</b> Operation 2.1.1. Twinning contract: EUR 1.5 m Operation 2.1.2. Service contract: EUR 1.0 m Operation 2.1.3. Supply tender: EUR 1.5 m (NATIONAL CO FINANCING)	

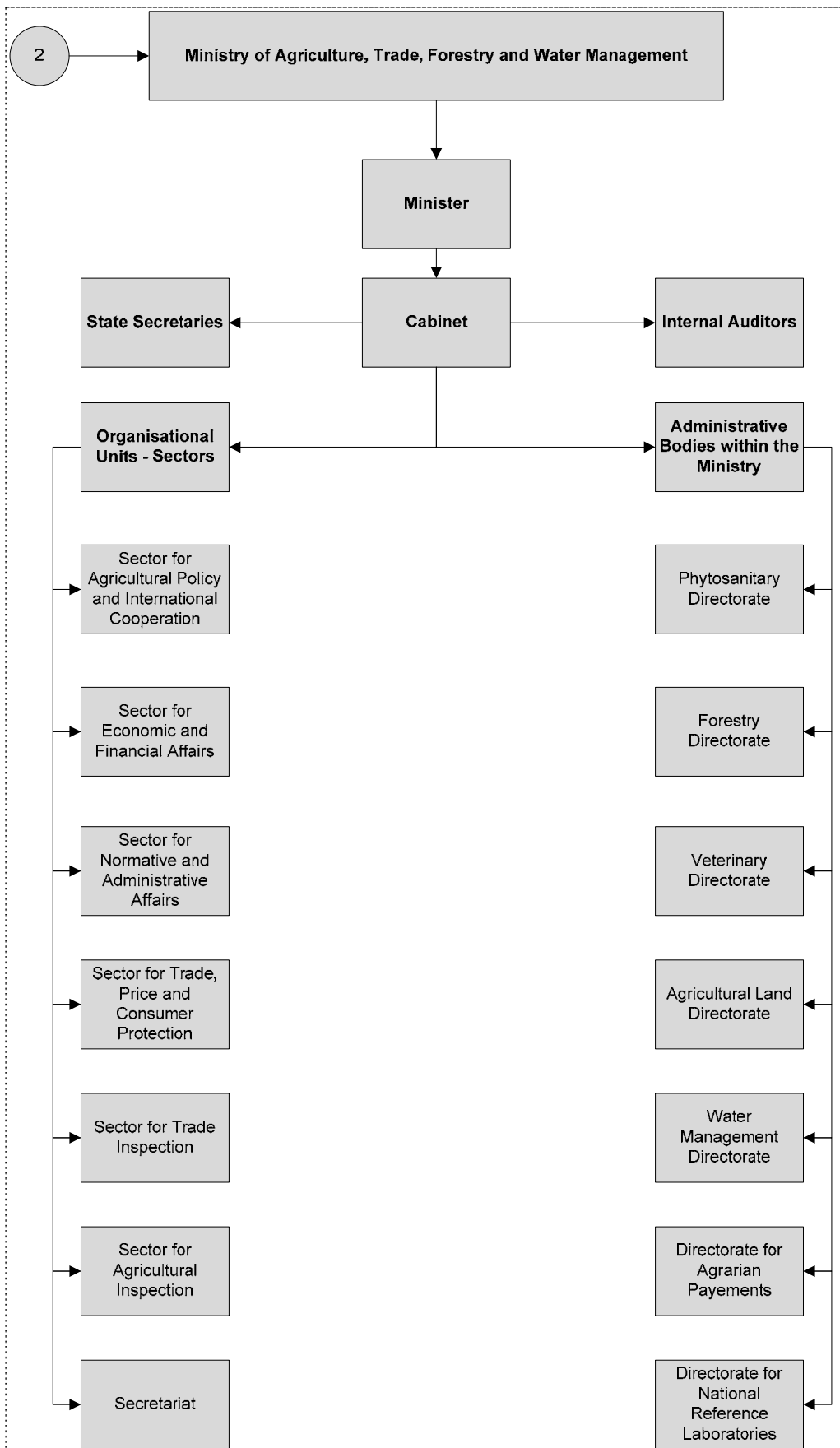
## **ANNEX 2: Description of Institutional Framework**

MTFWM - undertakes policy development, preparation of annual operating programmes, project implementation and monitoring.

Sector Working Group – brings together key stakeholders, CSOs, donors, the Serbian European integration Office, and representatives of the different parts of the Ministry to prepare and prioritise IPA funded projects. It acts as a discussion forum, dissemination forum and decision making body. Sub-groups of the SWG explore issues in more technical detail with donors and technical experts from the Ministry and associated agencies.

SECO – provides a consultation mechanism between CSOs. It consists of a consortium of 3 CSOs that examine the implementation of EU and other funding programmes. The SECO is then able to feed into discussions held in the SWG.





### **ANNEX 3: Political, legal and institutional framework:**

#### Reference to relevant EU laws, regulations and strategic documents

- MIPD 2011-2013
- The European Partnership with Serbia (including Kosovo) of 18 February 2008 (2008/213/EC)
- The Stabilisation and Association Agreement (SAA)
- The Council's Directive 89/662 on veterinary controls conducted in trade in the Community in order to establish the internal market. (Harmonization with the provisions of this Directive is planned to be achieved through adoption of by-laws and other legislation pertaining to the veterinary area. The Directive should be fully implemented upon the accession to the EU).
- Regulation 178/2002 of the European Parliament and of the Council, laying down the general principles and requirements of Food Law, establishing the European Food Safety Authority and laying down procedures in matters of food safety.
- Regulation 852/2004 on the hygiene of foodstuffs.
- Regulation 853/05 laying down specific hygiene rules for food of animal origin.
- Regulation 854/02 laying down specific rules for the organization of official controls on products of animal origin
- Regulation 882/04 on official controls and further Regulations on transitional and implementing measures.
- The basic legal framework in the EU is provided by Regulation N. 178/2002 of the European Parliament and of the Council, laying down the general principles and requirements of Food Law, establishing the European Food Safety Authority and laying down procedures in matters of food safety
- Following the adoption of Regulation 178/2002, the EU legal framework on food safety has been completed with the adoption of the "Food Hygiene Package" (Regulation 852/2004 on the hygiene of foodstuffs, Regulation 853/05 laying down specific hygiene rules for food of animal origin, Regulation 854/02 laying down specific rules for the organization of official controls on products of animal origin, Regulation 882/04 on official controls and further Regulations on transitional and implementing measures ).
- DIRECTIVE 2009/128/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides
- DIRECTIVE 2009/127/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 October 2009 amending Directive 2006/42/EC with regard to machinery for pesticide application
- DIRECTIVE 2006/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2006 on machinery, and amending Directive 95/16/EC

#### Reference to relevant Serbian laws, regulations and strategic documents

- Law on Agriculture and Rural Development (Official Gazette RS 41/09)
- The Law on Agricultural Service (Official Gazette of RS 61/91)
- The Law on Organic Production (Official Gazette of RS No 130/10)
- Amended National Programme for Integration (NPI) 2009,

- National Programme for Rural Development (2011-2013)
- Needs of the Republic of Serbia for International Assistance 2011-2013
- National Programme for Agriculture 2010-2013
- 2011-2013, Law on Veterinary Matters (Official Gazette of RS No 91/05 and amended 31/10)
- Law on Food Safety (Official Gazette of RS No 41/09)
- Law on medicines and medical products (Official Gazette of RS No 30/10)
- Law on animal welfare (Official Gazette of RS No 41/09)
- Law on plant health (Official Gazette of RS No 41/09),
- Law on plant variety registration (Official Gazette of RS No 30/10),
- Law on seed (Official Gazette of RS No 45/05),
- Law on fruit, grape vine and hop seedlings (Official Gazette of RS No 18/05),
- Law on genetically modified organisms (Official Gazette of RS No 41/09),
- Law on plant nutrition products and soil improver (Official Gazette of RS No 41/09),
- Law on plant protection products (Official Gazette of RS No 41/09)
- Law on plant breeders rights (Official Gazette of RS No 41/09, and amended 81/11)
- Law on public storage facilities (Official Gazette of RS No 41/2009)
- Law on tobacco (Official Gazette of RS No [101/2005](#) , [90/2007](#) and 95/2010)
- Water Law (Official Gazette of RS No 30/10 )
- Forestry Law (Official Gazette of RS No 30/10)
- Rulebook on food hygiene conditions (Official Gazette of RS No 73/10)
- Rulebook on microbiological criteria (Official Gazette of RS No 72/10)
- Rulebook on general and specific rules for hygiene of food of animal origin (Official Gazette of RS No 25/2011).
- Rulebook laying down method and procedure of performing official control of food of animal origin and method of performing official control of animals prior and after slaughtering (Official Gazette of RS No 99/10)
- Rulebook on way of classification and handling of animal origin by-products, veterinary-sanitary conditions for construction of facilities for collection, processing and destroying of animal origin by-products, manner of implementation of official control and self-control, and conditions for cattle graveyards and pit graves (Official Gazette of RS No 31/11).

**ANNEX 4: Details per EU funded operation(\*) where applicable:**

**Measure 1.1: Capacity building for upgrading of food establishments and for animal by-product management**

Contract # and Name	Description	Cost Estimates (EUR m)
<p><b>Twinning Contract – Operation 1.1.1.</b></p>	<p>A single Twinning contract is proposed made up of two components: one for upgrading food establishments, and one for Animal by-products Management (ABP). Each component would thus be managed by an expert (Component Leader) in the relevant field with the capacity to provide other non-key experts to undertake the relevant tasks associated with developing strategic policy direction, systems, standards, and procedures, and with development and delivery of training. Awareness raising programmes could be carried out through a mix of Senior and Junior Non-key experts. As the activities foreseen by the project both come under one area of responsibility within the Veterinary sector a single twinning contract is appropriate: the two components will enable the acquisition of the very different sets of skills and expertise needed for the provision of services related to capacity building and transferring expertise from relevant Member States in the two fields. These two areas are of high importance when it comes to alignment with the EU requirements.</p> <p>It is envisaged that the project will carry out following activities:</p> <p><u>In the area of strengthened strategic, institutional and legal framework (for both components)</u></p> <ul style="list-style-type: none"> <li>• Needs analyses and creation of prioritized action plans</li> <li>• Development of a National strategy for upgrading food processing establishments and animal by-product management</li> <li>• Development and adoption of standards for food processing establishments in the meat and milk sectors; and for animal by-product management.</li> <li>• Development of Check lists and procedure for the assessment of food establishments.</li> <li>• Updating of the National database of food establishments</li> </ul> <p><u>In the area of capacity building to enable implementation and enforcement of standards and regulations (for both components)</u></p> <ul style="list-style-type: none"> <li>• Conduct training needs analysis for veterinary inspectors and relevant policy makers in food processing establishments and ABP management system</li> <li>• Prepare training programs for inspectors and other relevant Ministry personnel</li> <li>• Pilot practical training on evaluation of structural conditions and classification of establishments;</li> <li>• In depth training for Special Commission components (in</li> </ul>	<p><b>2.0</b></p>

	<p>particular on assessment of food establishments according to the National strategy for upgrading)</p> <ul style="list-style-type: none"> <li>• Ongoing assessment of the upgrading process</li> </ul> <p><u>In the area of improving capacities and awareness among operators and responsible persons (for both components)</u></p> <ul style="list-style-type: none"> <li>• Organisation and execution of awareness meetings with stakeholders, on the upgrading process of food establishments and on regulatory requirements for animal by-products management.</li> <li>• Organization and execution of an awareness campaign addressed toward stakeholders, on the upgrading process of food establishments and on regulatory requirements for animal by-products management.</li> <li>• Dissemination of information through articles in relevant newspapers and magazines, and informative leaflets and brochures.</li> <li>• Delivery of training workshops for owners, operators and responsible persons involved in food processing and animal by-product management.</li> </ul>	
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**Measure 1.2: Implementation of sustainable use of plant protection products and establishing systems for regular technical inspection of pesticide application equipment already in use**

<b>Contract # and Name</b>	<b>Description</b>	<b>Cost Estimates (EUR m)</b>
<b>Twinning Contract – Operation 1.2.1.</b>	<p>Within the Twinning contract an RTA advisor will be engaged to provide overall project management and ensure the different parts of the project mesh together. Key experts (senior and junior) will also be brought in for specific tasks (e.g. developing standards, development of inspection and certification procedures; training of persons designated by MAFTWM for inspection of equipment; training of distributors, and professional users of plant protection products; and for awareness raising programmes). It is envisaged that the contract will include delivery of a range of activities:</p> <p><u>In the area of preparation of legal foundation for amending Serbian law</u></p> <ul style="list-style-type: none"> <li>• Establishment of Cross-sector working group</li> <li>• Preparation or assessment and revision of the National Action Plan</li> <li>• Gap analysis and needs assessment of current legislation in areas of agriculture, water, and environment relating to use of plant protection products</li> <li>• Revision of national legislation in area of plant protection products to ensure harmonization with Directive 2009/128.</li> </ul>	<b>1.3</b>

	<ul style="list-style-type: none"> <li>• Drafting or revision of by-laws for implementation of sustainable use of plant protection products including inspection of equipment in use and economic instruments for subventions</li> </ul> <p><u>In the area of establishing a framework structure for implementing requirements of the new EU Directive on sustainable Use of Pesticides 2009/128/EC</u></p> <ul style="list-style-type: none"> <li>• Training needs assessment to ascertain training requirements for distributors and end users</li> <li>• Development and upgrading of certified training programmes for distributors and end users of plant protection products (initial and additional)</li> <li>• Development of register of certified users and distributors</li> </ul> <p><u>In the area of development of integrated pest management strategies</u></p> <ul style="list-style-type: none"> <li>• Identification of priorities: active substances, crops, protected areas and regions that require particular attention as a result of application of plant protection products</li> <li>• Preparation of general guidelines and advice for promotion of integrated pest management (IPM) approaches.</li> <li>• Provision of advice on integrated pest management (IPM) approaches and development of a clear communication strategy and production of materials for promotion of IPM.</li> <li>• Development of guidelines and best practice advice for handling and management of plant protection product waste packaging and containers.</li> </ul>	
<p><b>Supply Tender -Operation 1.2.2</b></p>	<p>The supply tender will supply mobile measurement instruments for inspection of equipment identified in the table below. The table below is an indicative list of equipment for 25 agricultural schools and 8 agricultural service stations (field bodies for inspection of equipment in use), and two agricultural faculties. The supply tender will also include checking of equipment and installation in relevant regional centers; development of procedures, guidelines and manuals for inspecting application equipment including manuals for handling of measuring instruments for inspection of equipment already in use and training of equipment inspectors in Agricultural services and Agricultural schools.</p>	<p><b>1.2</b></p>

**INDICATIVE BUDGET BREAKDOWN TABLE**

<p><b>Implementation Modes (types of contract):</b></p>	<p><i>Supply Contract</i></p>
<p><b>Estimated Duration:</b></p>	<p>12 months</p>

<i>Supply Contracts (Operation 1.2.2.)<sup>12</sup></i>			
<b>Basic Technical Specification</b>	<b>Number of units</b>	<b>Cost per unit</b>	<b>Total Cost</b>
<i>Pump tester</i>	34	9,450.00 €	321,300.00 €
<i>Spray scanner</i>	34	14,150.00 €	481,100.00 €
<i>Electronic flow measurement</i>	2	16,930.00 €	33,860.00 €
<i>Flow rate device</i>	33	4,000.00 €	132,000.00 €
<i>Vertical patternator</i>	1	8,500.00 €	8,500.00 €
<i>Vertical petternator with double lamellae</i>	1	27,200.00 €	27,200.00 €
<i>Spray monitor</i>	2	1,400.00 €	2,800.00 €
<i>Test box</i>	33	3,900.00 €	128,700.00 €
<i>Software</i>	34	750.00 €	25,500.00 €
Installation costs	1	39,040.00 €	39,040.00 €
<b>TOTAL EXPENDITURE</b>			<b>1,200,000.00 €</b>

### **Measure 1.3: Continuation of support for the control/eradication of classical swine fever and rabies in the Republic of Serbia**

<b>Contract # and Name</b>	<b>Description</b>	<b>Cost Estimates (EUR m)</b>
<b>Supply Tender - Operation 1.3.1</b>	Supply tender for purchase of vaccines for oral vaccination of wild carnivores (rabies).	<b>3.5</b>
<b>Supply Tender - Operation 1.3.2</b>	Supply tender for purchase of vaccines against CSF for emergency vaccination in the case of outbreaks of CSF	<b>1.6</b>
<b>Supply Tender - Operation 1.3.3:</b>	Supply tender (through LOTS) for purchase of diagnostics and laboratory investigation supplies, surveillance and IT equipment and equipment/other items for improvement of biosecurity measures on pig farms/holdings.	<b>1.0</b>
<b>Service Contract - Operation 1.3.4</b>	Service contract for Technical Assistance for verification of deliveries, development of The National Animal Diseases Compensation Fund. [Note: idea is to develop this Fund for CSF but also other animal diseases This fund will be part of national (VD) budget, EU will contribute it as well as MoA/VD but in the future other stakeholders (farmers, associations, donors, insurance companies etc.)], for continuous education and awareness campaign and engagement of specialists that will carry out supervision activities related to works contract.	<b>1.0</b>

<sup>12</sup> Detailed information about supply tender are provided in the Needs Assessment Documents in annex 6 of this paper

**INDICATIVE BUDGET BREAKDOWN TABLE**

<b>Implementation Modes (types of contract):</b>	3 Supplies and 1 Service Contract		
<b>Estimated Duration:</b>	24 months		
<i>Supply tender1 (Operation 1.3.1.)</i>			
<b>Basic Technical Specification</b>	<b>Number of units</b>	<b>Cost per unit</b>	<b>Total Cost</b>
<i>Purchase of vaccines for oral vaccination of wild carnivores (rabies). Three ORV campaigns, estimated 1.630.000 vaccine baits per campaign.</i>	4.890.000	0.70	3,500,000.00 €
<b>TOTAL EXPENDITURE</b>			<b>3,500,000.00 €</b>
<i>Supply tender 2 (Operation 1.3.2.)</i>			
<b>Basic Technical Specification</b>	<b>Number of units</b>	<b>Cost per unit</b>	<b>Total Cost</b>
<i>Purchase of vaccines against CSF for emergency vaccination in the case of outbreaks of CSF</i>	N/A	N/A	1,600,000.00 €
<b>TOTAL EXPENDITURE</b>			<b>1,600,000.00 €</b>
<i>Tender divided into multiple LOTs (Operation 1.3.3.)<sup>13</sup></i>			
<b>Basic Technical Specification</b>	<b>Number of units</b>	<b>Cost per unit</b>	<b>Total Cost</b>
<i>Purchase of diagnostics and laboratory investigation supplies, surveillance and IT equipment and equipment/other items for improvement of biosecurity measures on pig farms/holdings</i>	N/A	N/A	1,000,000.00 €
<b>TOTAL EXPENDITURE</b>			<b>1,000,000.00 €</b>

**Measure 1.4: Development of a sustainable inspection services information system for the Ministry of Agriculture, Forestry and Water Management (MTFWM)**

<b>Contract # and Name</b>	<b>Description</b>	<b>Cost Estimates (EUR m)</b>
<b>Service Contract - Operation 1.4.1</b>	<p>The service contract (Operation 1.4.1) is essential in order to undertake two key tasks:</p> <ul style="list-style-type: none"> <li>• The analysis of system requirements and design of the system architecture (i.e. what tasks the system must be able to perform)</li> <li>• Development of tailor made software modules</li> </ul> <p>The service contract is thus essentially in two parts. The first part at the start of the project must undertake the needs assessment in three units of the MTFWM, analyse system and application requirements and proceed with system and software design. The</p>	<b>1.5</b>

<sup>13</sup> Detailed information about supply tender are provided in the Needs Assessment Documents in annex 6 of this paper



	<p>needs assessment will analyse the operational and organisational structure for the inspection services information system within the ministry and its involved directorates. The technical assistance will also train the human resources to assume responsibilities after such a re-organisation process. It will also monitor the progress of design and development of software modules and applications for the three relevant directorates. Secondly the TA will also prepare specification for hardware, software implementation and license needs for the supply contract in the next IPA -programming year 2013.</p> <p>Team Leader, Key Expert 2 and Senior Non Key Experts will work on strategic issues, analysis and action plans In this estimation, it is suggested 4 x 375 days (in total 1500 days) for Junior Non-key experts, since their job is of the outmost importance as they will work as Developers.</p>	
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**Measure 2.1: Institutional capacity building and support to agriculture and rural development in Serbia for IPARD management**

<b>Contract # and Name</b>	<b>Description</b>	<b>Cost Estimates (EUR m)</b>
<b>Twinning Contract – Operation 2.1.1</b>	<p>Operation 2.1.1. Twinning contract related to to capacity building within Agrarian Payments Directorate. Envisaged activities:</p> <ul style="list-style-type: none"> <li>• Review the IPARD 2 programme and develop processes to accommodate agri-environment (Axis 2) and development of rural economy (Axis 3) measures</li> <li>• Develop the legal (national legislation and by-laws) and institutional framework for agri-environment and rural economy programmes that will become part of IPARD 2 programme</li> <li>• Preparation of relevant measure fiches and procedural arrangements for the operating structure to implement IPA V Component (IPARD Agency and Managing Authority) taking into account the new EU agricultural and rural development strategy for 2014-2020, including application and acceptance criteria, along with payment, inspection and monitoring systems</li> <li>• Train staff (Managing Authority, future IPARD agency, agricultural extension personnel, and policy personnel) in preparation for introduction of agri-environment measures.</li> <li>• Communications and dissemination of information, including the role of extension service in publicity activities</li> </ul>	<b>1.5</b>
<b>Service Contract – Operation 2.1.2</b>	<p>Operation 2.1.2. Service contract concerned with support for developing a land parcel identification system (LPIS).</p> <p><b>Envisaged TA services (indicative):</b></p>	<b>1.0</b>

	<ul style="list-style-type: none"> <li>• Undertake a review of needs in the sector , including definition of the roles of other actors to support establishment of strategic plan for implementing LPIS in Serbia</li> <li>• Analyse the processes at the DAP</li> <li>• Develop the methodological approach for LPIS establishment,</li> <li>• Produce documents and procedural manuals</li> <li>• Provide support to establishment of an LPIS unit within the DAP</li> <li>• Assess capacities of MTFWM and other levels of government (pilot municipalities) for LPIS introduction and implementation</li> <li>• Deliver training re-LPIS implementation</li> <li>• Identify technical requirements for LPIS software procurement</li> <li>• Finalise/customise/re-configure the delivered LPIS SW solution according to the needs of the DAP</li> <li>• Support the users during the digitisation and apportion of data into the LPIS</li> <li>• Localisation of software.</li> </ul> <p><b>Required expertise (indicative):</b></p> <ul style="list-style-type: none"> <li>• Key expert 1- Team Leader (IACS/LPIS expert), 340 WD</li> <li>• Key expert 2 – Spatial Data Infrastructure expert, 100 WD</li> <li>• Non Key Senior Experts (pool), 500 WD</li> <li>• Non key Junior Experts (pool), 375 WD</li> </ul>	
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## **ANNEX 5: Possible visibility activities**

Integral part of the operations to be carried out will be definition of visibility activities as a cross-cutting mechanisms through various components of the operations. The aim of the visibility activities will be to raise the profile of IPA funding projects, increase awareness among various target audiences and to ensure successful communication of information about the operations and results that will be accomplished.

While designing these activities, existing national communication platforms will be considered, and furthermore planning and designing of possible visibility actions and tools will be fully aligned with the EU visibility guidelines “Communication and Visibility Manual for EU External Actions”.

The precondition for the successful identification of visibility activities will be identification of the communication objectives (in order to pull existing resources and create maximum impact when directed to the target groups); identification of target groups (as recipients of the information); identification of key messages (to be transferred to targets in a way to motivate them to perceive information in desired manner) and setting up communication approach.

In regard to measures/operations proposed, visibility actions and tools could include:

- Definition of visual identity standards
- Written materials to be prepared (factsheets, training compendia, manuals, etc)
- Production of branded material (panels, folders, promotional material)
- Website
- Events (trainings, retreats, workshops, round tables, initial and closing events).

## ANNEX 6 – Needs Assessment for the investment components of the Sector Fiche

### Measure 1.2. – Implementation of sustainable use of plant protection products and establishing systems for regular technical inspection of pesticide application equipment already in use - Operation 1.2.2

#### ABBREVIATIONS

SUD	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides
Law on PPPs	Law on plant protection products (OJ of the RS, No. 41/09)
PPPs	Plant protection products
MTFWM	Ministry of Agriculture, Forestry and Water Management
PPD	Plant Protection Directorate
IPM	Integrated Pest Management
Agricultural Services	Agricultural Advisory and Expert Services
Agricultural Schools	Secondary Agricultural Technical School

## 1. Background

### 1.1. Context and rationale

The adoption of the Law on plant protection products (hereafter referred to as Law on PPP`s) in the Parliament of the Republic of Serbia in June 2009 has provided the potential for harmonising legislation with the new EU Directive on the Sustainable use of Pesticides 2009/128/EC (hereafter referred to as SUD) through adoption of by-laws.

At the time of preparation of the final draft of the Law on PPP (October 2008) and its submission to the Parliamentary procedure for adoption, only common opinion of the EU Parliament and of the Council about the SUD was available. This was the reason that only basic provisions from SUD were transposed into national legislation: integrated pest management (hereafter referred to as IPM), education of end users (professional users), distributors and advisors, inspection (control testing) of equipment for application of plant protection products (hereafter referred to as PPPs) and aerial spraying (Articles 32, 44, 46, 48, 50, 51 of the Law on PPP`s). Implementation of these provisions of the SUD in Serbia will be by bylaws.

Among other provisions, the SUD prescribes regular technical inspection of application equipment of PPP`s already in use. The aim of these provisions is to minimize the adverse impacts of PPPs on human health and the environment.

In order to implement the Law on PPPs it is necessary to establish a system for inspection of the application equipment that is already in use in Serbia.

In order to cover all territory of the Republic of Serbia, 33 Agricultural Advisory and Expert Services (hereafter referred to as Agricultural Services) will perform initial and additional training of professional users for safety and environmental use of PPP's and distributors for safety handling of PPP's.

Eight Agricultural Services will also perform inspection of pesticide application equipment already in use, because in four Agricultural Services engineers of agriculture machinery have already been engaged, while remaining four Agricultural Services are in process of recruiting those engineers. These eight stations have been selected as they contain agricultural engineers with the correct level of training and expertise to undertake inspection activities.

Beside Agricultural Services, 25 Secondary Agricultural Technical School (hereafter referred to as Agricultural Schools) will also undertake the inspection of equipment. At each school one person will be certified to undertake the inspection of equipment.

Agricultural Service centres and Agricultural schools are chosen as basic elements of the system, especially because they work very closely with farmers (which are the final beneficiaries of the project), they are located all over the country and thus will ensure full territorial coverage of the Republic of Serbia.

Agricultural Stations and Agricultural schools will be controlled by two central institutions (the Faculties of Agriculture in Belgrade and Novi Sad) which will be responsible for the verification of the system. These two Faculties will be the two central institutions responsible for undertaking inspections of equipment, continuous education and improvement of the system and performing control of inspection of equipment in use that will be undertaken by the Agricultural Stations and Agriculture Schools. Other legal entities will also be included into the system upon completion of the public bid that will be announced by the Ministry of Agriculture, Forestry and Water Management (hereafter referred to as MTFWM) in 2013 once all bylaws are prepared for implementation. These legal entities will also be controlled by central bodies. Central bodies (two Faculties) will be controlled by the Plant Protection Directorate (hereafter referred to as PPD) of the MTFWM.

In Serbia there are 450,000 registered farms (Payment Agency, July 2011), but no clear indication of numbers using PPP's or numbers of equipment for their application. It is estimated that 10% of them are using equipment for application of PPP's for field crops and vineyards, orchards and in greenhouses also. All this equipment will not be inspected in the same time. At the beginning inspection will be undertaken on the equipment for field crops and subsequently, along with improvement of the system, equipment for vineyards and orchards and for greenhouses will undergo this control. Hand sprayers, will be excluded from inspection, because they are used by nonprofessional users of PPP's.

Currently there are only two central bodies that can perform inspection of equipment already in use (Faculties of Agriculture in Belgrade and Novi Sad). The aim is to establish system in such a way that testing units (stations) will be as close as possible to the farmers and equipped by mobile measuring instruments to perform inspections of equipment.

In order to facilitate the creation of the system of inspection of equipment already in use according to circumstances in Serbia, the USAID Agribusiness Project supported delivery of

two training packages for inspection of pesticide application equipment already in use targeting mechanical engineers from Agricultural Services (4), Agriculture Schools (25), one mechanical engineer from private company dealing with agricultural machinery, one mechanical engineer from farmers organization and two unemployed mechanical engineers. Training has been performed in December 2010 and in February 2011. Training was prepared by the Plant Protection Directorate and two Faculties of Agriculture from Novi Sad and Belgrade.

Having in mind activities undertaken so far, Serbia partially developed capacities for undertaking inspection of equipment already in use which, that will officially start in 2012 (enforcement the provisions of the Law on PPP's).

However, the system of inspection of equipment already in use cannot be established without the necessary measuring instruments, as only two central institutions (Faculties of Agriculture in Belgrade and Novi Sad) have portion of necessary measuring instruments for inspection of equipment.

## **1.2 Legal context (including requirements from EU acquis and new legislation)**

### **1.2.1. Relevant EU legislation/directives/standards**

- Sustainable use of Pesticides Directive, **CHAPTER III, PESTICIDE APPLICATION EQUIPMENT, Article 8 Inspection of equipment in use**

*Brief description:* Member States shall ensure that pesticide application equipment in professional use is subject to inspection at regular intervals.

The inspections shall verify that pesticide application equipment satisfies the relevant requirements prescribed in Annex II of this Directive in order to achieve a high level of protection for human health and the environment. The pesticide application equipment must function reliably and be used properly for its intended purpose ensuring that pesticides can be accurately dosed and distributed. The equipment must be in such a condition as to be filled and emptied safely, easily and completely and prevent leakage of pesticides.

Particular attention should be paid to: Power transmission parts, Pump, Agitation, Spray liquid tank, Measuring systems, control and regulation systems, Pipes and hoses, Filtering, Spray boom (for equipment spraying pesticides by means of a horizontally positioned boom, located close to the crop or the material to be treated), Nozzles, Distribution, Blower (for equipment distributing pesticides by air assistance).

For that purposes it is necessary to have *measuring instruments to the machinery to check the correct functioning (see below)*.

- **Directive 2009/127/EC** of the European Parliament and of the Council of 21 October 2009 amending Directive 2006/42/EC with regard to machinery for pesticide application

*Brief description:* This Directive identifies the essential requirements with which machinery for pesticide application must comply before being placed on the market and/or put into service., while the European standardisation organisations are responsible for drawing up

harmonised standards providing detailed specifications for the various categories of such machinery in order to enable manufacturers to comply with those requirements (EN 13790).

Machinery for pesticide application must meet all the essential health and safety requirements set out in Annex I (Point 2.4. MACHINERY FOR PESTICIDE APPLICATION). In the point 2.4.7. *(Inspections) is prescribed that it must be possible to easily connect the necessary measuring instruments to the machinery to check the correct functioning of the machinery.*

### 1.2.2. Relevant National Legislation

- The Law on PPPs, **Article 50 Equipment for application, Article 51 Control testing**

*Brief description:* Application equipment may be placed into circulation and used if, in accordance with its intended use, it provides safe and efficient application and safety for operators, and their working and living environment. Control testing shall mean the verification of the good technical condition and functionality of equipment and individual operating parts, the assessment of the functioning of individual operating parts and of application appliances as a whole, as well as the assessment of the risk which their use may present to the operator and their working and living environment.

The Minister shall prescribe the method and frequency of control testing, the content of the certificate on functionality of application appliances, the manner of marking and the content of the mark, forms for the records of control testing, as well as the application appliances for which control testing is not required.

### 1.2. Institutional context

The competent authority for implementation of the system of inspection of equipment already in use is the PPD of the MTFWM.

Eight Agricultural Services and 25 Agricultural Schools will perform inspection of equipment already in use in the field. They will be controlled by two central institutions (the Faculties of Agriculture in Belgrade and Novi Sad) which are responsible for verification of the system. The control and verification functions will be carried out by 8 trained personnel located within the Faculties. The two Faculties will also engage in training of equipment inspectors and they will report to the PPD about activities in the field.

The system for inspection equipment already in use will be organized as follows:

#### 1) *The Plant Protection Directorate:*

- Conducts of program for training of persons responsible for performing inspection of equipment already in use and issues certificate for that purposes;
- Maintains records of certified persons for performing inspection of equipment already in use;
- Issues a label for marking equipment already in use which passed inspection and deliver labels to the Central bodies;
- Collects data on performed inspection of equipment already in use;

- Supervises Central bodies, Agricultural Services, Agricultural Schools and other legal entities that will also be included into the inspection of equipment already in use;
- 2) *Agricultural Faculties in Belgrade and Novi Sad (which constitute the Central body for inspection of equipment already in use)*
- Conduct training and examine persons responsible for performing inspection of equipment already in use in accordance with a training program prescribed by the PPD;
  - Perform testing of the equipment already in use and issue a confirmation of functionality of the equipment already in use;
  - Issue a label for marking equipment that has passed inspection on the basis issued confirmation of functionality;
  - Keep records on carried out inspection of equipment already in use and submit quarterly reports to the PPD;
  - Supervises Agricultural Services, Agricultural Schools and other legal entities which perform inspection of equipment already in use;
- 3) *Agricultural Services and Agricultural Schools*
- Perform control testing of the equipment already in use and issue a confirmation of functionality of the equipment already in use;
  - Keep records on control testing of the equipment already in use and certificates issued and submit quarterly reports to the central bodies.

To establish above mentioned system and to start performing the inspection of equipment already in use it is **necessary to have** measuring instruments to the equipment to check the correct their functioning.

It should be noted that after the establishment of a system tasks for the inspection of equipment already in use, other companies will be able to perform control testing insofar as they have personnel that are certified and have equipment available for performing the inspection of equipment already in use.

## 2. Gap assessment

As already described in the section 1.2. the system of inspection of equipment already in use cannot be established without the necessary measuring instruments.

Existing measuring instruments consists of:

- Faculty of Agriculture in Novi Sad: pump tester, nozzle tester for field sprayers, and nozzle tester for orchards sprayers, manotester, spray scanner and vertical patternator.
- Faculty of Agriculture in Belgrade: pump tester, nozzle tester for field sprayers and manotester.

The current level of measuring instruments, limited number of institutions and trained personnel which can perform inspection of equipment are reasons for insufficient capacity to perform 20 inspections of equipment per year. The Faculty of Agriculture in Novi Sad



performs inspection of equipment in use since 2007, while the Faculty of Agriculture in Belgrade didn't start yet with inspections due to lack of necessary measuring instruments.

Requirements regarding storage and full utilisation of these mobile measuring instruments are already in place. These instruments do not require additional rooms (facilities) for their installation except proper rooms for their storage (within Faculties in Belgrade and Novi Sad, Agricultural Services and Agricultural Schools) and cars for their transportation to the field, so that inspection of equipment already in use is as much as close to farmers. All of those requirements are already fulfilled.

For reduction use of PPP's, which is the aim of the SUD, application equipment must function reliably and must be used properly with its intended purpose, ensuring that PPP's can be accurately dosed and distributed in order to achieve a high level of protection of human health and the environment. Because of that it is very important to establish regularly inspection of equipment already in use.

### 3. Financial sustainability

After completion of the project, financial sustainability will be secured through payment for service (inspection of equipment already in use). Payment for the services will be determined by the MTFWM on the basis of real service delivery costs.

The owner of the measuring instruments will be the MTFWM. Measuring instruments will be located in the two faculties, 8 Agricultures Services and 25 Agricultural Schools. A contract will be made between the MTFWM and institutions which will use those measuring instruments. Institutions that will use these measuring instruments will be in-charge of maintenance of the measuring instruments. These costs will be included in payment for services, mentioned above.

### 4. Indicative list of equipment (incl. estimated prices based on market analysis and locations)

#### Mobile measuring instruments for two central institutions (The Faculties in Belgrade and Novi Sad)

No	Item	A. # of Items	B. Item rate (in EUR)	C. Expected costs (in EUR) C=A x B
1.1.	<p><b><i>Pump tester</i></b></p> <p><i>Technical specification:</i></p> <p>Equipped with an inductive flow sensor and electronic pressure sensor.</p> <p>Both sensors are connected to a monitor, that displays continuously pressure and flow rate.</p> <p>Complied with the EU standard prEN13790.</p> <p>Measuring size of flow sensor 1 ¼", precision of 0.5% between 15 and 500 l/min, maximum</p>	1	9.450	9.450

	<p>constant working pressure 25 bar</p> <p>Pressure sensor, max pressure 25 bar, class 0.5 (0.5% precision over the full range)</p> <p>Over-pressure valve 25 bar to protect the sensors.</p> <p>Welded stainless steel pipes (where possible) and stainless steel pressure regulation valve (max. 40 bar).</p> <p>Extra transparent part to be able to check if no air is sucked through the pump</p> <p>Measuring device is integrated in a firm and robust aluminium box,</p> <p>foreseen with 2 support wheels for easy transport</p> <p>Can be connected to liquid hoses without an extra adapter of 1, 1 ¼” and 1½” (possible to connect to the standard adapters)</p> <p>The pump tester works on a 12V battery and has an autonomy of +/- 40 hours after full recharging of the battery. The device is supplied with 1 battery and a battery charger.</p>			
1.2.	<p><b><i>Spray scanner</i></b></p> <p><i>Technical specification:</i></p> <p>Measuring surface of 80 by 150 cm.</p> <p>Horizontal measuring plane (no slope in the upper surface).</p> <p>The data are stored in a memory box that can be transported to a PC.</p> <p>With the software, the distribution can be reported solely or a complete inspection report can be executed and printed.</p> <p>The scanner is standard delivered with two 12V batteries and a charger.</p> <p>In the kit, 12 parts of rail of 3.2 m length are standard supplied.</p> <p>With the display unit, the scanner is activated and navigated if necessary. A part of spray boom can be measured again without completion of the rest of the spray boom (f.ex. when parameters or parts of the spray boom have been changed), the maximum working width is 72 meter.</p> <p>With the wireless system, all commands can be given at the PC. After every measurement step, the data are transmitted to the PC and shown on the display.</p> <p>In the standard package, ½ day installation and</p>	1	14.150	14.150

	<p>training are provided.</p> <p>In option, a water collection container is available per 0.5 meter.</p>			
1.3.	<p><b>Electronic flow rate measurement device (24 nozzles)</b></p> <p><i>Technical specification:</i></p> <p>The device is constructed for every even pair of nozzles (e.g. 14 for horticulture or vineyards, 16 for fruit growers and 20/24 for olives and citrus).</p> <p>Each measuring glass is equipped with electronic sensors that define the content with a precision of 0.25% (2L glasses and flow rate up to 6 L/min).</p> <p>Each measuring glass is opened and closed by an electronic valve that is steered from the PC to avoid run-over of the measuring glasses.</p> <p>With the complementary software, a complete inspection report can be accomplished and printed.</p> <p>The adaptors are universal and fit on all types of nozzle holders and caps. Adaptors for pneumatic nozzles are available in option.</p> <p>A collection container is in option provided to recuperate all sprayed liquid.</p>	2	16.930	33.860
1.4.	<p><b>Vertical patternator</b></p> <p><i>Technical specification:</i></p> <p>Vertical patternator is designed to measure the vertical liquid distribution of orchard and air-blast sprayers. The patternator is constructed with specially manufactured discs that allow the air to pass through and filter the sprayed liquid.</p> <p>The collected liquid between the discs is guided per 25 cm of height to a measuring glass.</p> <p>Patternator is mobile, with min 2 tracks whose length should equal at 3.20 m.</p> <p>High of patternator should be 4.0 m.</p>	1	8.500	8.500
1.5.	<p><b>Vertical patternator with double lamellae</b></p> <p><i>Technical specification:</i></p> <p>The patternator is constructed with specially manufactured lamellae.</p> <p>The collected liquid between the lamellae is guided per 10 cm of height to a measuring glass.</p>	1	27.200	27.200

	<p>Patternator should be stationery and equipped with trailer (length 3-4 m).</p> <p>High of patternator should be 4.0 m.</p> <p>The measuring glasses should be equipped with electronic sensors to automate the registration of the liquid content of the measuring glasses. With the software, a complete test report should be printed with the distribution before and after adjusting the sprayer.</p>			
1.6.	<p><b><i>Spray monitor for portable sprayers</i></b></p> <p><i>Technical specification:</i></p> <p>The monitor displays continuously the sprayed amount and the average flow rate.</p> <p>For each plot, the sprayed amount, the working time, the average flow rate and the maximal flow rate (as an indicator for evenness of the spray action) are registered.</p> <p>The precise flow meter (max. 1% error after calibration in a stable spray system) is mounted in the pressure line.</p> <p>The data can be transmitted to a PC through a serial port.</p> <p>The data can be stored in a database for further elaboration.</p> <p>The monitor uses two 1,5V batteries, type AA.</p>	2	1.400	2.800
1.7.	<i>Software</i>	1	750	750
<b>Total costs for all items</b>				<b>96.710</b>

### Mobile measuring instruments for 8 Agricultural Services and 25 Agricultural Schools

No	Item	D. # of Items	E. Item rate (in EUR)	F. Expected costs (in EUR) C=A x B
1.1.	<p><b><i>Pump tester</i></b></p> <p><i>Technical specification:</i></p> <p>Equipped with an inductive flow sensor and electronic pressure sensor.</p> <p>Both sensors are connected to a monitor, that displays continuously pressure and flow rate.</p> <p>Complied with the EU standard prEN13790.</p> <p>Measuring size of flow sensor 1 1/4", precision of 0.5% between 15 and 500 l/min, maximum constant working pressure 25 bar</p>	33	9.450	311.850

	<p>Pressure sensor, max pressure 25 bar, class 0.5 (0.5% precision over the full range)</p> <p>Over-pressure valve 25 bar to protect the sensors.</p> <p>Welded stainless steel pipes (where possible) and stainless steel pressure regulation valve (max. 40 bar).</p> <p>Extra transparent part to be able to check if no air is sucked through the pump</p> <p>Measuring device is integrated in a firm and robust aluminium box, foreseen with 2 support wheels for easy transport.</p> <p>Can be connected to liquid hoses without an extra adapter of 1, 1 ¼” and 1½” (possible to connect to the standard adapters)</p> <p>The pump tester works on a 12V battery and has an autonomy of +/- 40 hours after full recharging of the battery. The device is supplied with 1 battery and a battery charger.</p>			
1.2.	<p><b>Testbox + Nozzle tester S-monitor</b></p> <p><i>Technical specification:</i></p> <p><b>Testbox</b></p> <p>A stopwatch to measure the time to collect a quantity of liquid in a measuring glass or the time to cover a certain distance to calculate the forward speed.</p> <p>A brush to clean nozzles.</p> <p>A passive flow meter equipped with a special adaptor and flow rate indicator, to be used on all types of nozzle holders/caps and designated to avoid leaks.</p> <p>A digital tyre pressure gauge to define the pressure in the air chamber/pump accumulator.</p> <p>A manometer tester to verify the manometers of the sprayer, equipped with a reference manometer of 160 mm, class 0.6.</p> <p>A measuring glass of 2 L with graduation every 20 mL (can be replaced by measuring glass of 1 L, graduated every 10 mL).</p> <p>Four manometer-adaptors to measure the pressure at the nozzles/nozzle holders. The 4 devices allow checking the pressure equilibrium of different sections, the compensatory return of the section valves, the pressure loss between manometer of the sprayer and the nozzle, the pressure loss within one section, the pressure stability (air chamber/accumulator functionality) and the functionality of the</p>	33	3.900	128.700

	<p>manometar of the sprayer.</p> <p><b>Nozzle tester S-monitor</b></p> <p>The nozzle tester has a precision of 1% from 0.25l/min up to 5 l/min.</p> <p>The nozzle tester is supplied with a special adapter for measuring the flow rate of air-injection and pneumatic spraying nozzles.</p> <p>The data of 10 sets of 100 nozzles can be stored in the memory of the monitor and can be transmitted to a PC.</p> <p>A measuring report of the nozzles or of a complete inspection can be accomplished on a PC with the complementary software.</p> <p>The monitor uses two 1.5V batteries, type AA.</p> <p>The system is light and be kept easily in a hand.</p> <p>The nozzle tester is delivered in a handy and strong case.</p> <p>A standard for mounting the measuring unit is available in option, to be able to measure the flow rate of the nozzles mounted on orchard or airblast sprayers (not downwards oriented nozzles).</p> <p>The device is supplied with a calibration report.</p>			
1.3.	<p><b>Flow rate device –mechanical</b></p> <p><i>Technical specification:</i></p> <p>The flow rate measurement device is produced for every even number of nozzles. For the horticulture, a version with 14 measuring glasses is advised, for fruit growers 16 glasses and for South European sprayers (for olives and citrus), minimal 20 glasses are advised to be able to measure all the nozzles mounted on a complete sprayer in one pass.</p> <p>The glasses have a content of 2000 mL, 20 mL graduation, 1% precision.</p> <p>The inner frame has 3 positions: a) to collect the liquid in the glasses, b) to read the content and c) to empty the glasses.</p> <p><input type="checkbox"/>The adaptors are universal and fit on all types of nozzle holders and caps.</p> <p>Adaptors for pneumatic sprayers are available in option.</p> <p>Under the measuring device, a collection container is in option provided to recuperate all sprayed liquid.</p>	33	4.000	132.000

1.4.	<p><b><i>Spray scanner</i></b></p> <p><i>Technical specification:</i></p> <p>Measuring surface of 80 by 150 cm.</p> <p>Horisontal measuring plane (no slope in the upper surface).</p> <p>The data are stored in a memory box that can be transported to a PC.</p> <p>With the software, the distribution can be reported solely or a complete inspection report can be executed and printed.</p> <p>The scanner is standard delivered with two 12V batteries and a charger.</p> <p>In the kit, 12 parts of rail of 3.2 m length are standard supplied.</p> <p>With the display unit, the scanner is activated and navigated if necessary. A part of spray boom can be measured again without completion of the rest of the spray boom (f.ex. when parameters or parts of the spray boom have been changed), the maximum working width is 72 meter.</p> <p>With the wireless system, all commands can be given at the PC. After every measurement step, the data are transmitted to the PC and shown on the display.</p> <p>In the standard package, ½ day installation and training are provided.</p> <p>In option, a water collection container is available per 0.5 meter.</p>	33	14.150	466.950
1.5.	<i>Software</i>	33	750	24.750
<b>Total costs for all items</b>				<b>1.064.250</b>

<b>Total costs for all items</b>	<b>1.160.960</b>
<b>Total costs for installation</b>	<b>39.040</b>
<b>Total costs</b>	<b>1.200.000</b>

The prices presented in the table above have been calculated on the basis of market prices from two producers that have the necessary mobile measuring instruments.

**5. Indicative Timetable/scheduling/sequencing**

Quarter	Q3			Q4			Q5			Q6			Q7			Q8			Q9			Q10			Q11			Q12					
Twinning contract*	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I									
Supply contract				I	I	I	I	I	I	I	I	I	I	I	I																		

**I - Implementation**

\* The table takes into account contracting for TA that will be performed through Twinning Contract (Operation 1.2.1 of the Measure 1.2 of the Agriculture and Rural Development Sector Fiche) in order to present complementarity with proposed Supply Contract (which is Operation 1.2.2 of the same Measure).

The technical specification for the equipment required already exists and will enable the supply contract to be tendered during the early part of the project. It is envisaged that Supply contract will also provide procedures, guidelines and manuals for inspecting application equipment and deliver training for equipment inspectors.

Equipment should be ordered at the start of the project to ensure it arrives in time to enable the training for inspection of equipment already in use can be performed on schedule.



## **INDICATIVE NEEDS ASSESSMENT FOR THE SUPPLY TENDER MEASURE**

### **1.3 – OPERATION 1.3.3. (Procurement of diagnostic and laboratory investigation supplies, surveillance and IT equipment and equipment for improvement of biosecurity measures on pig farms)**

#### **1. Background**

##### **1.1. Context and rationale**

This supply tender refers to the Sector Fiche Support to Agriculture and Rural Development, more precisely to the Measure 1.3 – Operation 1.3.3, aiming at improvement of biosecurity measures on pig farms through procurement of diagnostic and laboratory investigation supplies, surveillance and IT equipment. Measure 1.3. represents continuation of support for the control/eradication of classical swine fever and rabies in the Republic of Serbia of the Programme entitled: “*Support of the Control/Eradication of Classical Swine Fever and Rabies in the Republic of Serbia*”, authorized from IPA 2008, IPA 2009 and IPA 2011, aiming to assist Serbia to control and eradicate two high priority animal diseases (CSF and Rabies) not only in Serbia but also in neighbouring countries and in the Europe as well.

The Republic of Serbia has already started processes of transposition and implementation of provisions of the *Acquis communautaire* relevant to animal disease control and eradication including Classical Swine Fever and Rabies. During implementation of the IPA 2008, IPA 2009 and IPA 2011 projects it is expected that the veterinary service and other stakeholders in Serbia will significantly increase administrative, institutional and field capacities to implement important measures in regard to the surveillance, eradication and control of animal diseases. Also, knowledge transfer activities will take place to educate farmers, hunters, and other stakeholders which are of crucial importance for eradication of certain animal diseases, in particular those that need an integrated management approach by different interest groups.

The eradication of rabies and CSF in the Western Balkans consists of two components – a regional component for the Western Balkans countries (managed by the EC), and a national component (this project). There are 7 national programmes, one in each of the West Balkan countries, including the one in Serbia where EU financing started with IPA 2008. The purpose of the project described in this paper is to continue the earlier work undertaken in the IPA 2008 project for the eradication of rabies and CSF in Serbia (and ultimately the whole Western Balkan region), and continue capacity building of the veterinary services.

It is confirmed that wild animals in the whole region of Western Balkan countries, is a reservoir of classical swine fever virus and rabies virus with permanent threats of serious outbreaks in domestic animal populations.

#### **Classical Swine Fever (CSF)**

Production of pork and products from pig meat is a very important agricultural sector in Serbia with potential for significant growth. Some recognized companies from the EU have already started to invest in pig production in Serbia after the veterinary administration proclaimed that CSF is under control and that Serbia will switch the control approach to a non-vaccination policy.

The wild boar population in Serbia is counted and registered by hunt associations and the Ministry of Agriculture (Forestry Directorate). The Veterinary Directorate has engaged one wildlife specialist and started close collaboration and cooperation with hunter associations in order to implement an appropriate surveillance system for wildlife. From 2009 and especially in 2010 the Veterinary Directorate significantly improved CSF monitoring of wild boars as support to the project. According to recommendation given by IPA 2008 TA support, Serbia stopped vaccination of wild boar in fenced hunting grounds in April 2011 which will help veterinary epidemiologist to better understand results from monitoring of this population (low seroprevalence with no significant background). In 2011 VD announced significant increase of samples from wild boars and laboratory investigations on CSF both serological and virological. Such active surveillance will create environment for better understanding of the epidemiological situation in the wild pig population but also enable scientifically-based risk analysis before the implementation of a non-vaccination policy. There is currently no vaccination programme for wild boars against CSF. According to assessment of available data and in close dialogue with relevant EU institutions and experts, including the Task Force for CSF, there is no need to begin vaccination of this population against CSF in Serbia. Serbian veterinary authorities are in close liaison with OIE and EU authorities trying to understand and implement (possible) new recommendations and standards concerning free CSF status of member countries and compartmentalisation in the pig industry.

In January 2010 the Veterinary Directorate started the IPA 2008 project to control CSF with significant results attained so far. Activities have included development of CSF control strategy and plans for non-vaccination policy. Initially, Ministry of Agriculture announced discontinuation of CSF vaccination policy in September 2010 or latest from 1.1.2011. Unfortunately, VD detected two outbreaks of CSF in November 2010 (one on big farm) and assessed the high risk of new outbreaks if vaccination would be stopped, especially on small backyard holdings.

## **1.2 Legal context (including requirements from EU acquis and new legislation)**

### **1.2.1 The EC regulatory framework related to biosafety/biosecurity:**

Council Directive 2001/89/EC on Community measures for the control of classical swine fever, Commission Decision 2002/106/EC approving a Diagnostic Manual establishing diagnostic procedures, sampling methods and criteria for evaluation of the laboratory tests for the confirmation of classical swine fever, Directive 89/391/EEC, Directive 2000/54/EC, Directive 98/81/EC on the contained use of micro-organisms, Directive 2001/18/EC on the deliberate release into the environment, Regulation (EC) 1829/2003 on genetically modified food and feed, Regulation (EC) No. 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology, Directive 2004/35/EC, Directive on hazardous waste 94/31/EC(2)

### **1.2.2 International conventions recommendations, standards**

World Animal Health Organization (OIE): Manual of Diagnostic Tests and Vaccines: for Terrestrial Animals, 2011, Chapter 1.1.1: Collection and shipment of diagnostic specimens, Chapter 1.1.2: Biosafety and biosecurity in the veterinary microbiology laboratory and animal facilities, Chapter 1.1.3.: Quality management in veterinary testing laboratories. WORLD HEALTH ORGANIZATION (2004). Laboratory Biosafety Manual, Third Edition. WHO, Geneva, Switzerland. ISO 14001: 1996 Environmental

management systems

### **1.2.3 Relevant National Legislation**

Law on veterinary matters, Regulation on Program on Animal Health Protection Measures for 2011, Regulation on list of dangerous disease and list of contagious notifiable disease as well as the notification and withdrawal of notification, Regulation on measures for control and eradication of classical swine fever, Regulation on measures for control and eradication of rabies.

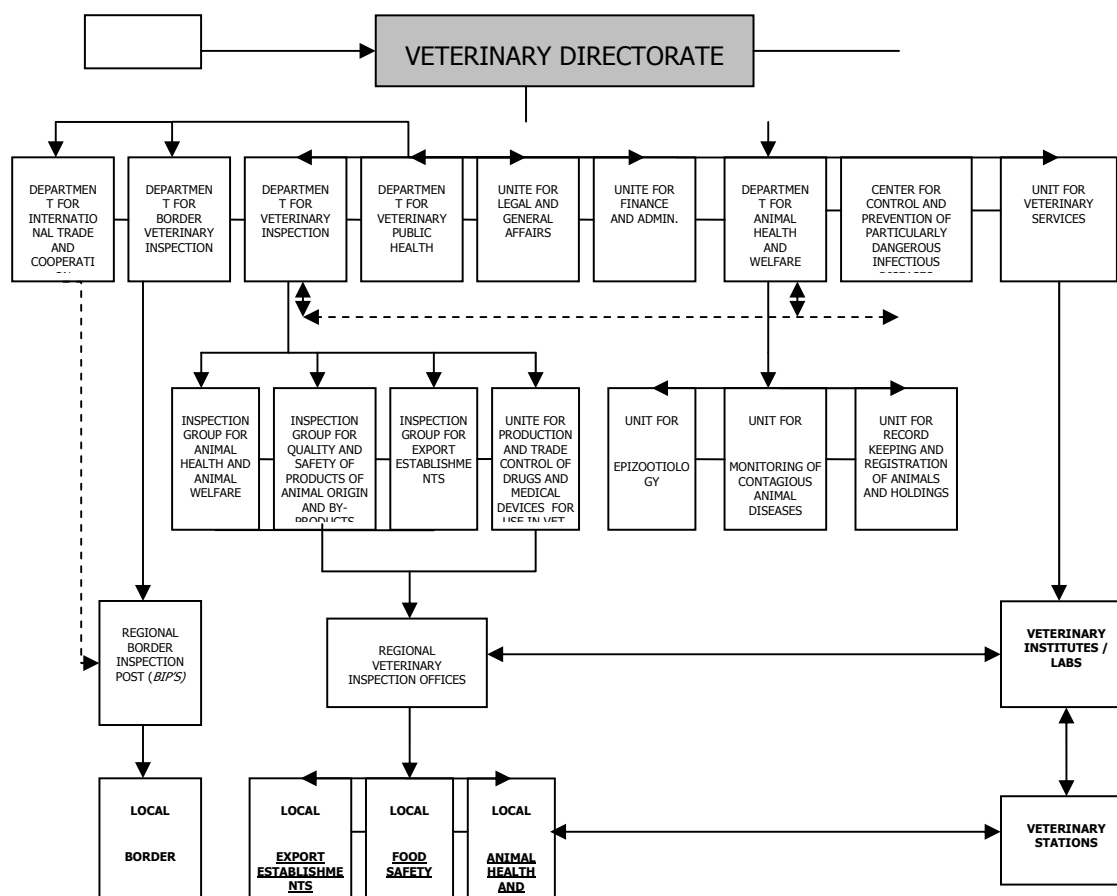
### **1.2.4. Institutional context**

Veterinary Directorate (VD) is responsible for safety of food of animal origin throughout all stages of production, processing and distribution. VD also has competence in the area of animal health, animal welfare, animal reproduction, animal feed, veterinary medicines and residues. The structure of the Veterinary Directorate is centralised, with roles and responsibilities being defined by the law. Within the VD there are five departments: Department for Animal Health, Welfare and traceability, Department for Veterinary Public Health, Department for Veterinary Inspection, Department for Veterinary Border Inspection and Department for International Trade and Certification, and three units: Unit for Veterinary Services, Unit for Legal, General and Financial Affairs, Group for Internal Audit and Quality Management Systems.

Veterinary scientific and veterinary specialist institutes: For the purpose of performing microbiological analyses and diagnostic of causative agents of infectious animal diseases (bacteriological, serological, virological, mycological and parasitological tests), determination of the cause of death of animals, investigation of the cause of animal abortion, pathoanatomical tests, microbiological and chemical analyses of feed and safety of food of animal origin, i.e. laboratory testing of veterinary and sanitary, health safety and quality of products and raw materials of animal origin, TSE testing, determining the presence of animal protein in feed, and determining bovine protein in feed, in accordance with the Law on Animal Health (Official Gazette RS, No. 37/91 and other laws) 12 veterinary scientific and veterinary specialist institutes have been established as public veterinary services or continued working as such:

Scientific Veterinary Institute of Serbia is NRL for diagnostic of following infectious diseases: Foot and Mouth Disease; Swine vesicular disease; Blue tongue; Classical swine fever; African swine fever; Rabies; African horse sickness; Infectious horse anemia; Horse influenza; Dourine; Glanders; Anaerobic infections; Aujeszky disease; Enzootic bovine leucosis; Fish diseases, but also performs routine diagnostic testing of the following infectious animal diseases: Tuberculosis, Enzootic bovine leucosis, Brucellosis, Salmonellosis, E.coli, Pasterellosis, Leptospirosis, Listeriosis, BSE; other viral, bacterial and fungous diseases of domestic and wild animals. The institute is certified according to ISO 9001:2000 standard and accreditation against ISO 17025 (animal health, feed and food safety) and participate regularly in annual ring trials and proficiency testing schemes with the EU reference laboratories. In their work they apply standard ISO methods, methods recommended by the OIE defined in European regulations, i.e. recommended by the EU reference laboratories.

## Organigramme of State Veterinary Services



## 2. Gap assessment

This tender for supplies is proposed in line with Ministry strategy to stop CSF vaccination policy as a control measure (according to EU legislation) on the territory of some regions or channels. The future control strategy of CSF is based on graduate and phase approach which includes graduate phasing out of vaccination of domestic pigs. At present Serbia controls the CSF via constant preventive mass vaccination. According to the experience of other countries like Netherlands, Germany, Croatia, Romania etc. after stopping of vaccination the risk of possible spread is constantly present because of wild reservoirs of virus and due to the fact that entire population of pigs will be susceptible and not immune. The scale of possible outbreaks will be much bigger than in case when mass preventive vaccination is practiced. According the retrospective case control studies and the simulation based on Monte Carlo method, it has been estimated that possible outbreak could affect more than 30 000 animals just in one outbreak and disease could spread over the 40 settlements which means that we could expect more than 1800 tonnes of carcasses to be dispose. Consequently, it is expected, among other activities, to strictly control risk zones with huge number of samples to be sent to National Reference Laboratories (NRL). Based on the same simulation for possible outbreak with 30 000 animals and 40 settlements affected we could expect costs as follows: compensation : 2.547.169 €, disposal: 271.698€, cleaning and disinfection: 15.094 € and for euthanasia: 56.603€ based on market prices for live animals, disposal services and cleaning and disinfection. On the

other side, from epidemiological point of view and according to experience from The Netherlands, when population of domestic pigs is not protected by vaccine we could expect huge number of outbreaks (more than 400 in The Netherlands during CSF crisis in 1997/98).. For the management of such crisis in Serbia, significant amount of equipment have to be provided and installed.

In current situation the available surveillance equipment and laboratory capacities are appropriate for small scale outbreaks when preventive vaccination is main control measure. But preparedness plan for non vaccination control strategy comprises more surveillance equipment for much more outbreaks an laboratory capacities (e.g. in terms of bio-security in laboratories) than that is already in place now which has to be purchase. In parallel work should be continued on raising awareness of farmers and stakeholders, improving biosecurity, conducting trainings, and also to allocate emergency fund which is going to be used for compensation, surveillance, disposal of animals, cost for labour work etc. All this envisaged work have been included in proposed Measure 1.3 of the Sector Fiche proposed to be financed through IPA 2012.

Through already mentioned previous IPA projects, a considerable amount of the equipment has been purchased, or is in the tendering procedure. However, the status of contracts and delivery is unknown for the Beneficiary (January 2012).

### **3. Financial sustainability**

Ministry of agriculture, Veterinary Directorate is responsible for allocation of resources for maintenance and financing of non-profit activities of national interest for veterinary activities. In Veterinary budget defined by the law, there are budget lines for:

- Directorate of reference national laboratories
- Veterinary administration

Furthermore, through IPA 2012, one of the operations (Operation 1.3.4 – TA) is envisaging establishment of the National Animal Diseases Compensation Fund. Idea is to develop this Fund for eradiction of CSF but also other animal diseases. This fund will be part of national (VD) budget, EU will contrubute it as well as MTFWM/VD but in the future other stakeholders (farmers, assotiations, donors, insurance companies, are expected to contribute financialy to sustainability of this fund). Resources of the fund will be used, among other purposes, for continues support in improving biosecurity and biosefty measures.

The owner of the purchased equipment will be the MTFWM/VD. However, Ministry will use existing capacities in veterinary institutes, epidemiological inspections centres and veterinary organizations for storage and installation of such equipment.

**4. Indicative list of equipment (incl. estimated prices based on market analysis and locations)\***

The list of surveillance and eradication equipment should be developed in coordination with Beneficiary and with support of technical assistance project, having in mind previous deliveries, real needs in the field but also experience in countries with significant CSF crisis in the past (e.g. The Netherlands, Croatia).

However, for continuous monitoring and surveillance of CSF and rabies it is necessary to deliver on time and continuation appropriate reagents and tests as well as equipment for tracing and tracking of samples. Provisional list of such goods is following:

1. Reagents for laboratory investigations
2. Consumerables
3. Diagnostic test for serological investigations
4. Diagnostic test for virological investigations
5. Sampling equipment
6. Equipment for tracking, tracing and delivery of samples
7. Personal protective equipment for laboratories and crisis management team

***Provisional budget for the procurement of these goods is 1.000.000 EUR.***

Due to different typology of the equipment to be purchased, it is envisaged to apply supply tendering procedure with division into Lots.

**5. Timetable/scheduling/sequencing**

Quarter	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14
<b>Operations of the Measure 1.3.</b>														
Operation 1.3.1. Supply rabies	T	T	I	I	I	I	I	I	I	I	I			
Operation 1.3.2. Supply CSF	T	T	I	I	I	I	I	I	I	I	I			
Operation 1.3.3. Tender supply for equipment	T	T	I	I	I	I	I	I	I	I	I			
Operation 1.3.4. TA	T	T	I	I	I	I	I	I	I	I	I			

T – Tendering

I - Implementation