



TWINNING PROJECT FICHE

**Support the Improvement of Agricultural Research in
Egypt through the Modernisation of the Agricultural
Research Centre**

Under the
Support to the EU-Egypt Association Agreement Programme (SAAP)
Ministry of International Cooperation - Egypt

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List of Acronyms

ARC	Agricultural Research Centre
ARDC	Agricultural Research and Development Council
ARDF	Agricultural Research and Development Fund
ARS	Agricultural Research System
ASDP	Agricultural Sector Development Programme
BA	Beneficiary Administration
BC	Beneficiary Country
CFCU	Central Finance and Contracts Unit
CGIAR	Consultative Group in International Agricultural Research
CID	Consortium for International Development
CIDA	Canadian International Development Agency
CIHEAM	International Centre for Advanced Mediterranean Agronomic Studies
CLDSAR	Central Laboratory for Design and Statistical Analysis Research
DRC	Desert Research Centre
EU	European Union
ENP	European Neighbourhood Policy
ERA	European Research Area
ERANET	European Research Area Network
EU	European Union
FAO	Food & Agriculture Organisation
FISC-R	Financial and Investment Sector for Rural
FP6	EU Sixth Framework Programme
FP7	EU Seventh Framework Programme
HEEP	Higher Education Enhancement Project, World Bank
HR	Human Resources
HRMDS	Human Resources Management and Development Strategy
HRMIS	Human Resources Management Information System
ICARDA	International Centre for Agricultural Research in the Desert Area
ICID	International Commission for Irrigation and Drainage
IPTRID	International Programme for Technology and Research in Irrigation and Drainage
IWRA	International Water Resources Association
JICA	Japanese International Cooperation Agency
MIS	Management Information System
MoALR	Ministry of Agriculture and Land Reclamation
MSR	Ministry of Scientific Research
MTE	Medium-term expert
MWRI	Ministry of Water Resource and Irrigation
NARIMS	National Agricultural Research Information Management System
NEDA	Netherlands Development Agency
NRC	National Research Centre
NWRC	National Water Research Centre
PAO	Programme Administration Office
PL	Project Leader
PSC	Project Steering Committee

RDI Programme	Research Development and Innovation Programme
RTA	Resident Twinning Adviser
SAAP	Support to the Association Agreement Programme
SCAR	Standing Agricultural Research Committee
SOPs	Standard Operating Procedures
STE	Short-term expert
TNA	Training Needs Assessment
ToR	Terms of Reference
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNESCO	United Nations Education and Scientific Organisation
USAID	US Agency for International Development

1 Basic Information

1.1. Programme: Support to the Implementation of the Action Plan and Association Agreement Programme ENPI/2010/021-871

1.2. Twinning Number: EG/12/ENP-AP/AG/19

1.3. Title: Support the Improvement of Agricultural Efficiency in Egypt through the Modernisation of the Agricultural Research Centre

1.4. Sector: Agricultural Research

1.5. Beneficiary country: Egypt

2 Objectives

2.1 Overall Objective(s):

To increase the efficiency and sustainability of the agricultural sector in Egypt by improving agricultural productivity, food safety and quality of agricultural production through enhanced agricultural research overall performance.

2.2 Project purpose:

The efficiency and sustainability of the agricultural research system in Egypt is increased by consolidating the legal basis and strengthening the coordination and operational capacity of the Agricultural Research Centre in accordance with EU best practices.

2.3 Contribution to Association Agreement/Action Plan and National Development Plan

With the entry into force of the Association Agreement (AA) on 1st June 2004, relations between the European Union and Egypt entered a renewed and more intense phase through which the Barcelona process is addressing a much wider spectrum of fields.

The AA aims to further regional integration and provides a framework for political dialogue and closer economic, social and cultural relations between the two parties. Economic cooperation includes the liberalisation of trade in goods, services and capital movement. It also involves the completion of a Free Trade Area by 2015 (2018 for a very limited number of industrial goods). In addition, the AA aims to support Egypt's economic and political reform efforts through the approximation of laws, regulations and standards applied in Egypt to those of the EU in various areas, including the agricultural sector.

While the AA serves as the legal basis of relations between the two parties, the European Neighbourhood Policy (ENP) is the broad political strategy which has the objective of strengthening the prosperity, stability and security of Europe's neighbourhood. The European Neighbourhood Policy Instrument (ENPI regulation 1638/2006) is the financial instrument that supports the ENP through concrete assistance actions. Within the framework of the ENP, national Action Plans set out the partner country's agenda for political and economic reforms. The Action Plan for Egypt, adopted in March 2007, with duration of five years, introduces specific and detailed mechanisms to support the implementation of the objectives of the AA as well as to support Egypt's national development and modernisation and to reform strategies and plans. In this context, the ENP Action Plan calls for cooperation in the agricultural sector covering the separation of regulatory, management and operational tasks, promotion of the involvement of the private sector in agricultural projects and services, and

the strengthening of the role of agricultural research centres in improving the productivity and quality of agricultural products and promoting cooperation with European research centres.

Within this framework, the EU has allocated four consecutive financial envelopes for the Support to the Implementation of the Association Agreement Programme (SAAP), totalling EUR 72 million, with the aim of contributing to Egypt's efforts in reforming the regulatory and operational framework governing public administration. This in turn is being achieved through Institutional Twinning and Technical Assistance (TA) projects being implemented in key selected areas with oversight from the SAAP Programme Administration Office (PAO) – Ministry of International Cooperation – Egypt.

As indicated in the EU-Egypt ENP Action Plan, cooperation tools, in particular “Twinning”, play an important role in the achievement of the Action Plan priorities. In fact the Twinning instrument provides for direct cooperation between EU and Egyptian public bodies to support institution-building activities, following a peer-to-peer approach.

This comes as a significant contribution to achieving the objectives and aims of the EU-Egypt Association Agreement, ENP Action Plan and National Plan.

It should be stressed that there are numerous direct and indirect references to the topic of the project in the Association Agreement:

- **Article 42** of the *EU-Egypt Association Agreement* on the training of personnel at the public administrations and authorities, technical agencies, standardisation and certification bodies, etc.;
- **Article 43** of the *EU-Egypt Association Agreement* emphasises (a) the establishment of durable links between the scientific communities; (b) the strengthening of research capacity in Egypt; (c) the stimulation of technological innovation, transfer of new technologies, and dissemination of know-how;
- **Article 50** of the *EU-Egypt Association Agreement* emphasises the importance of cooperation in ensuring the modernisation of agriculture and fisheries.

Specific references are also made in the following articles of the ENP Action Plan:

- 2.1.2: Economic development and reform;
- 2.2. Trade-related issues, market and regulatory reform;
- 2.5. Science and technology, research and development, information technology audio-visual cooperation.

E.g. strengthen the role of **agricultural research centres** in improving the productivity, food safety and quality of agricultural products, and promote cooperation with European Research Centres, particularly in the areas of genetic engineering and biotechnology:

- Promote the use of modern technology in the agricultural sector and during the different production phases;
- Promote the distribution and exchange of information on agricultural policies and contribute to the transfer of expertise and experiences.

Furthermore, the ENP Action Plan promotes the approximation of Egyptian laws, regulations and standards to those of the EU in various areas including the agricultural sector.

The following references are also made in the Egyptian National Plan entitled “The Sustainable Agricultural Development Strategy toward 2030”:

- Achieving sustainable development through the implementation of modern technology toward ensuring the appropriate use of natural agricultural resources, fulfilling the people's needs and requirements, and increasing farmers' income;
- Promoting cooperation and the transfer of technical expertise and knowledge between the EU and Egypt;
- Increasing the efficiency, effectiveness, productivity and profitability of the Egyptian Agricultural Research System through modernising and strengthening the institutional infrastructure and developing the human resources of the ARC;
- Improving the efficiency of ARC institutes and establishing a condensed executive management strategy toward transforming the ARC into a main national coordinator in the field of agricultural research;
- Evaluating the performance of the various research activities carried out, in terms of their relevance, effectiveness, and usefulness;
- Increasing the use of information and communication technology by institutions in their management and delivery of applied research;
- Improving participation in international research programmes and ensuring coordination between the various stakeholders involved in the research at internal and external, national and international level (including the EU and other Donors);
- Identifying the demand-based needs of agricultural research and ensuring interaction between research and extension;
- Facilitating and promoting quality standards, certification and control;
- Applying quality standards, certification and control in accordance with Egyptian agricultural requirements to promote organic agriculture and its applications.

3 Description

3.1 Background and Justification

The Egyptian chapter of the "Arab Spring" has positively reflected on the ARC. The Minister of Agriculture spelled-out that ARC includes senior scientists who works on generating new strains distinct in terms of productivity and quality. The minister stressed that the ministry will support the agricultural researchers with full force. He described this sector as "the strongest arm" in the ministry.

The agricultural sector in Egypt is characterised by the pressures of a scarce natural resource base combined with a high population. In Egypt, 85 million of the total population is concentrated within a limited and narrow region on the delta and on both sides of the Nile River. The growth rate of the population is 1.96% yearly. To maintain food security, resources have to grow proportionally. This can only be achieved through an optimum allocation of agricultural resources. This requires a greater investment in agricultural research as it will make a significant contribution to the increase of agricultural production. Thus the production levels required to feed the growing population and to provide important support to the growth of the economy could be reached.

Another important factor to be considered is that the European market has become more important to Egyptian trade and that with the latest enlargement, 28 European Member States have now adopted common rules and standards for their trade.

The Agricultural Research Centre (ARC) - which is not a University - is the main agricultural research institution in Egypt and as such can be considered as the "think tank" of the Ministry of Agriculture and Land reclamation. It has the leading role in Egypt agricultural research activities thanks to the wide knowledge and expertise that local ARC experts have on land and water conservation practices. ARC conducts research and provides technical assistance to increase the productivity and competitiveness of the agricultural sector which is influenced by climate change, and characterised by land and water scarcity, increased need for food security and food safety, and highly volatile prices across global markets. Other research bodies operating in the agricultural research sector are placed in the Ministry of Agriculture and Land Reclamation (MoALR), in the Ministry of Water Resources and Irrigation (MWRI), in the Ministry of Higher Education and Scientific Research, in the Ministry of Energy and in the Ministry of Health. They conduct basic applied researches in respective fields of interest to enhance production and services in close collaboration and coordination with ARC through joint committees.

The Support to the Implementation of the Association Agreement Programme (SAAP) aims to ensure that the expertise of European Union Member States (EU-MS) is made available to Egyptian Government institutions in order to streamline the institutional and administrative framework and to create a competitive climate for economic growth, with the help of the EU *acquis communautaire*. The institutional twinning instrument is given particular importance as it is perceived to be an efficient and appropriate vehicle for ensuring the transfer of knowledge and technical expertise to public sector administration.

Justification

To support the Egyptian administration in implementing the EU-Egypt Association Agreement (AA) and the European Neighbourhood Programme (ENP), the European Union (EU) launched the "Support to the EU-Egypt AA Programme" (SAAP) with the aim of contributing to Egypt's efforts toward upgrading the overall capacity of public administration. The programme focuses on three core areas: (i) trade and economic liberalisation; (ii) improvement of the legislative and regulatory framework; and (iii) institutional strengthening and reform.

This project will contribute, to different degrees, to all three of the core areas mentioned in the SAAP above.

Through the **first and second components** the project aims to modernise the legislative and institutional framework of the ARC in line with best practices of EU research institutions. ARC legislation was designed based on a variety of decrees and thus describes a complex organisation with a highly centralised decision-making process, a weak coordinating role, a counter-effective fragmentation and a number of overlapping functions. The development of an institutional and administrative regulatory framework for agricultural research which combines within the structure of the ARC i) an intermediary coordinating function for laboratories and institutes in each sector and ii) a Human Resources policy (including an employee retention policy for researchers), will assist significantly in increasing the quality of management and the efficiency of the institutions and will reduce overlapping and costs in line with best practices of EU research institutions.

Through the **third component** the project will support the establishment of a Management Information System (MIS) that includes a research project database. The presence of an efficient, regularly updated and transparent information system is crucial to the performance of both the coordinating and the managerial functions of the Centre. The current Information System (the National Agricultural Research Information Management System or NARIMS),

developed by the ARC, does not efficiently support either management (in its coordinating role) or the researchers (in developing their capacity and the quality of ARC research). The MIS activities of the third component will assist with overcoming this deficiency.

The **fourth component** addresses the need for the ARC to improve capacity building and the promotion of knowledge to support sustainable development.

Strengthening the coordination and operational capacities of ARC will increase the efficiency and sustainability of agricultural research in Egypt through:

- Improving the efficiency of ARC institutes and establishing a compact executive management strategy toward transforming the ARC into a main national coordinator in the field of applied agricultural research;
- Increase of ARC potentialities in addressing national priorities with decreasing the overlapping and duplication of the running research projects nationwide.
- Establishment of continued monitoring and evaluation system at ARC.
- Providing the ARC with an institutional mechanism capable of coordinating the performance of all institutes active in the agricultural sector whether they are part of the Ministry of the agriculture, other ministries and public and private sector entities.
- Maximization of ARC potentialities for selection, fostering and training of skilled candidates.
- Utilization of modern administration systems and continuous self-assessment.
- Increase of ARC affiliated certified reference institutions.
- Upgrading the scientific and technical skills of research, extension and technology transfer staff;
- Upgrading the scientific and technical skills and expertise, as well as the scientific practices of staff working in the fields of agricultural policies' designing, analysis, monitoring and evaluation; and
- Strengthening linkages between agricultural education programs and graduates, and the requirements of the labor market

In addition, the twinning could contribute to following trade aspects:

- Deepening trade and economic relations, and increasing trade liberalization by removing non-tariff barriers to trade through the application of proper agricultural products measures and removing technical barriers to trade through the approximation of Egyptian regulatory framework to the EU Acquis;
- Unlock trade potential and global market access for Egyptian agricultural exports by strengthening the traceability requirements for different agricultural products certification;
- Increasing the competitiveness of Egyptian export products by reducing the risk of the economic damage arising from the introduction and spread of harmful organisms. This should in turn increase productivity and reduce the cost of inputs for farmers;
- Increasing the competitiveness of Egypt exports through effective pre-export quality controls that build confidence with consumers and business partners and avoid costly recalls or other food-safety-related incidents. Production chain-oriented self-controls and official checks will address residues of plant protection products, mycotoxins and microbial contaminants; and
- Improving the climate of investment in the Egyptian agricultural sector by modernizing and strengthening the institutional infrastructure and developing human resources. This should strengthen the efficiency and effectiveness of private and

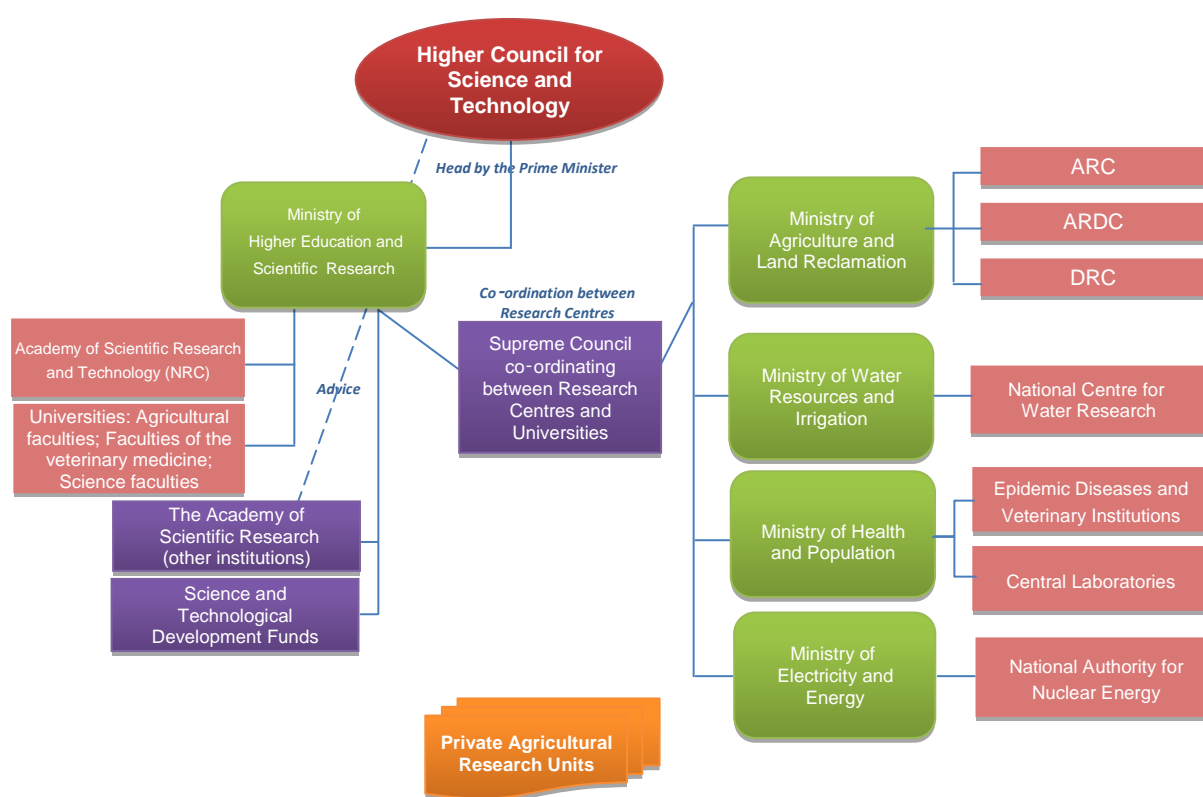
official controls for agricultural productions, which will in turn reduce the risk of the economic damage arising from the introduction and spread of harmful organisms or contaminants.

- Applying information and telecommunications modern technologies.
- Applying modern techniques and precipices in monitoring, analysing and prediction of natural and marketing risks and developing risk mitigation measures.
- Establishing an Egyptian food and feed safety code of practice.
- Establishing Egyptian standards for maximum residues, food additives, preservatives, colours and flavour-enhancers.

3.1.1 The Agricultural Research System in Egypt

The National Agricultural Research System under the current “Developing Scientific Research Plan (2012-2017)” can be observed in Diagram 1.

Diagram 1: Agricultural Research System in Egypt



In Egypt, the majority of research institutions are located in the higher education, production, and services sectors are state-owned. Only a few institutions belong to the private sector.

Diagram 1 describes the most important agricultural research institutions linked to the agricultural research system.

Funding of public sector research is mainly from the Government, but also from external donors. Current Government expenditure on agricultural research totals about 0.83% of the national agricultural income.

3.1.2 Ministry of Agriculture and Land Reclamation

The Ministry is the responsible body for the establishment of the agricultural research policy, the elaboration of the Agricultural Research Strategy, the coordination of the agricultural research system and for the organisation of the agricultural research bodies in Egypt. In the

process of elaborating these strategies and policies, the ARC is the entity within the Government system playing the steering role.

For a sustainable development vision, given the limited land and water resources, the MoALR has prepared a *Sustainable Agricultural Development Strategy towards 2030* addressing the sustainable use of natural agricultural resources, increasing the productivity of both the land and water units, raising the degree of food security in particular for the strategic food commodities, increasing the competitiveness of agricultural products in local and international markets, improving the climate for agricultural investment, and finally improving the living standards of the rural inhabitants, and reducing poverty rates in the rural areas. An operational plan (2012-2017) has been designed to implement this strategy. The plan contains a component related to the modernization and restructuration of ARC and therefore the development of a new strategy is not part of this twinning project.

The high profile officials at MoALR do well perceive that ARC as the primary applied research organization in the Ministry. Thus, MoALR entrust and mandate ARC to implement research programmes towards achieving 2030 strategy. It is important to stress that despite the legal setup, in practice, MoALR and ARC are deeply connected to one another: usually, the Minister of Agriculture is the former director of the ARC, which is the place where the Egyptian agricultural policy is designed.

a. Agricultural Research Centre (ARC)

By the virtue of Presidential Decree n° 2425 for 1971, the General Authority for Agricultural Research has been established, followed by Presidential Decree n°19 for 1983 establishing the Agricultural Research Centre (ARC) as a primary scientific research and extension centre.

The ARC is a semi-autonomous, state-owned research centre governed by a board of directors and chaired by the Minister of the Agriculture. The ARC board is composed of high ranking officials: a) presidents, vice-presidents, directors of ARC affiliated institutes, b) external representatives of the Academy of Scientific Research and Technology, c) five experts in agricultural areas designated by MoALR.

ARC is a complex structure and fragmented organisation (see Annex 3). It embodies 16 research institutes, 8 central laboratories, 10 regional stations, 46 specific research stations, and 23 research administrations throughout Egypt's governorates and employs more than 10,000 researchers and scientists.

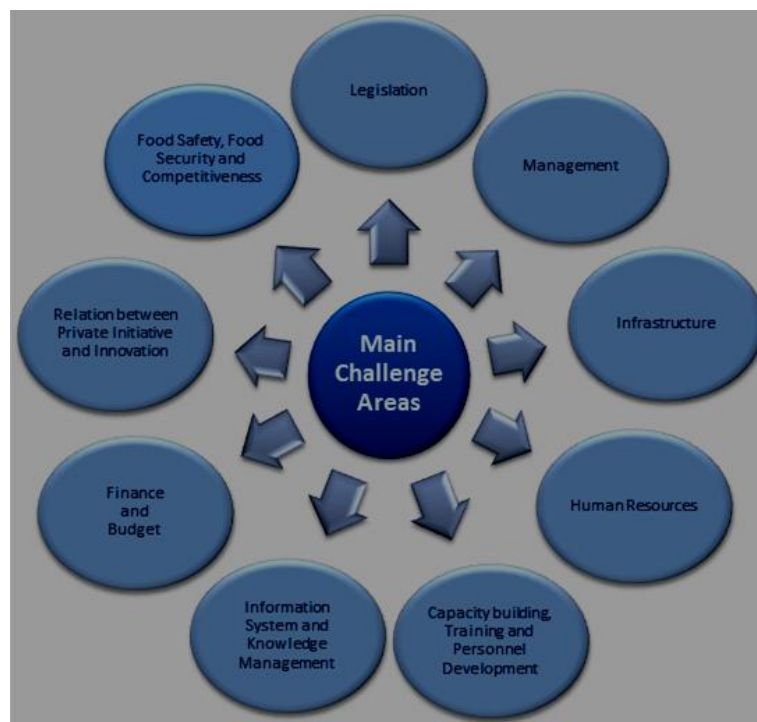
Since the establishment of ARC in 1971, it has been mandated to design and implement agricultural research programmes within the framework of sequential Egypt's strategies for economic and social development, of which the last one is the Sustainable Agricultural Development Strategy toward 2030. Thus, MoALR mandated ARC to elaborate, implement and coordinate the agricultural research policy on a nationwide scale in collaboration with colleges of agriculture and other research institutions related to agriculture.

The main tasks and responsibilities of ARC are:

1. Elaborate and implement agricultural research and extension programmes and all processes necessary to the advancement of agricultural production fields such as land, crops and animals;
2. Participate in the formulation of the Common Agricultural Policy (CAP), agricultural production and direction in accordance with the results of research activities and studies conducted in agriculture and economics in consistence with the overall objectives of the State; ARC is the government entity commissioned to prepare the draft agricultural policy;

3. Publish the results of agricultural research and disseminate their application at farm level in accordance with environmental conditions, and provide technical advice to various government agencies;
4. Strengthen relationships with external bodies in the field of agricultural expertise in term of participation in the activities of these bodies, the exchange of missions and agricultural and technical knowledge, and the dispatch of envoys for scientific studies and training inside and outside the country. Exchange grants, studies and scientific missions with States and external bodies and manage the introduction of foreign experts into the fields of agricultural research relevant to the Centre's activities;
5. Supervise the management of all agricultural experimental stations and farms.
6. Development and implementation of policy renewal and the multiplication of improved varieties of all types of agricultural crops;
7. Propose any new legislation required as a result of implementing the agricultural policy;
8. Participate in the development of extension programmes in accordance with the results of research activities.

It worth mentioning, that all previous international projects implemented by ARC were directed to research-oriented projects. However no attention was given to structural, legislative and administrative reform. Therefore, the Institutional Twinning instrument perfectly responds to the ARC prospective and reform. Below are the main challenges identified during the assessment phase.



b. Desert Research Centre (DRC)

The Desert Research Centre was established by Presidential Decree n° 90 for 1990. The structure of the DRC includes four departments: (1) Water resources and desert lands; (2) Environment and dry farming areas; (3) Animal and poultry production; and (4) Economic

and social studies. The DRC currently employs 115 researchers, 60 associate researchers and 145 technicians. Its major objectives are to investigate desert potential for agriculture development, to carry out studies on behalf of government institutions, societies and smallholders, and to prepare postgraduate research assistants and scholars for higher degree study in the field of scientific research.

DRC has seventy laboratories, together with a number of greenhouses, nurseries and lysimeters. Its facilities include tissue culture laboratory, a geographical information system (GIS) computer centre and a satellite receiving station. The National Agricultural Research Information Management System (NARIMS) does not cover the DRC and there is no specific agreement in place that regulates coordination between the ARC and the DRC.

c. Agricultural Research and Development Council (ARDC)

The Agricultural Research and Development Council was established in accordance with Ministerial Decree n° 153 for 2007. In compliance with this Decree, the majority of stakeholders involved in agricultural research in Egypt are represented on the Board of Directors of the ARDC. It has a structure similar to a steering committee that coordinates the implementation of the agricultural research policies of all agricultural bodies in Egypt. Besides this important function, the ARDC has been designed to also be a policy-making, coordinating, financial (see ADSP), monitoring, controlling and evaluating body. It is also a promoter of initiatives concerning the organisation of the various social components of the agricultural and agricultural research sectors.

Moreover the mentioned Presidential Decree assigns to the ARDC the monitoring, evaluation and control-related functions and tasks of the research institutes and institutions responsible for carrying out the research.

The role and function of the ARDC should be clearly modified at legislative level in order to address the current overlaps and prevent possible confusion and conflict.

Therefore, this foreseen twinning project provides for the opportunity to deeply reshuffle the agricultural research landscape, addressing the issues of scattered responsibilities and overlaps between the different stakeholders.

3.1.3 Ministry of Higher Education and Scientific Research

a. Universities

There are 18 universities subordinated by 17 faculties of agriculture in Egypt, all engaged in one way or another in agricultural research.

The limited funds allocated to research from the university budget and the weak linkages with the industrial sector to support research are important factors that affect the quality of research produced by Egyptian universities.

The World Bank, through the Higher Education Enhancement Project (HEEP), is presently working to design a new education system (see section 3.2: Linked activities).

b. Academy of Scientific Research and Technology: National Research Centre (NRC)

The NRC was established as an independent public organisation in 1956, with the aim of fostering “basic and applied scientific research, particularly in industry, agriculture, public health and other sectors of the national economy”. It is the largest of all the institutions affiliated to the Ministry of Scientific Research (MSR) and employs about 60% of all scientists working in these institutions.

The NRC is the largest multidisciplinary research and development centre in Egypt. The NRC has a large scientific and technological infrastructure and employs a total of over 4,300 professors (25% hold a PhD degree) and young researchers across 13 research divisions and 110 research sections. It is considered a smaller model of the scientific research system in Egypt as it includes 11 research centres. The NRC also has 79 Service Units with specialised finance and management status whose activities cover both the production and services sectors.

The NRC is managed by a director with policy guidance provided by a governing board. The agricultural research division is the largest division of NRC (600 employees including 200 PhDs).

The NRC is not involved in the implementation of the agricultural policy. However, representatives of NRC and other related centres are members of ARC's board of directors and therefore participate in setting the agricultural strategy.

3.1.4 Ministry of Water Resources and Irrigation

a. National Water Research Centre (NWRC) (12 institutes)

The NWRC was established in accordance with Presidential Decree n° 830 of 1975 and was re-organised following a second Presidential Decree, n° 316, issued in 1994.

The role of the National Water Research Centre is to coordinate, manage and assist the activities of the research institutes such as: planning and evaluating research programmes, strengthening and upgrading their staff capabilities, and raising funds from internal and external sources to implement their programmes.

The NWRC works in close coordination with the ARC.

3.1.5 Science and Technological Development Fund (STDF)

In 2006, the Egyptian State Ministry for Scientific Research embarked on an ambitious exercise to overhaul Science and Technology (S&T) activities in Egypt. Over the course of 2007, the outputs of that exercise were a complete restructuring of the S&T governance and management model in Egypt, in addition to the creation of the Higher Council for Science and Technology (HCST) and the Science and Technological Development Fund (STDF).

3.1.6 The Legal Basis of the Agricultural Research System in Egypt

Egyptian agricultural research institutions affiliated to Ministries other than the MoALR

- National Research Centre (NRC) regulation, Presidential Decree n° 288/1957; Universities' Law n° 49/1972;
- Patent on the Egyptian legal system, Law n° 82/2002.

Agricultural research institutions affiliated to the MoALR

- Institutes and Departments under MoALR decree n° 162/1996;
- Desert Research Centre (DRC) regulation, Ministerial Decree no 90/1990;
- Agricultural Research and Development Council (ARDC) regulation, Ministerial Decree n° 153/2007. Agricultural Research Development Fund (ARDF) regulation, Ministerial Decree no 1033/2008 is affiliated to ARDC. It is disbanded and all its assets, fund and any other departments and research units or bank accounts shall be given to both Agricultural Sector Development Programme (ASDP), and Financial and Investment Sector for Rural (FISC-R) by the ministerial decree n° 120 / 2012 ;
- Agricultural Research Centre (ARC); see below:

ARC legal basis

- Presidential Decree on the Establishing of the Agricultural Research Centre n° 2425/1971;
- Presidential Decree on the Regulating of the Agricultural Research Centre n° 19/1983;
- Presidential Decree on the Establishing of the Central Egyptian/Danish Laboratory of Food and Feed n° 82/1988;
- Presidential Decree amending Presidential Decree no 19/1983 n° 272/1988;
- Presidential Decree in addition to article 14 of Presidential Decree n° 19/1983 by adding under article n° 16 the Food Technology Research Institute n° 159/1996;
- Central Authority for Organisation and Administration Decree n° 348/1994;
- Ministerial Decree Establishing the Central Laboratory for Research and Date Palm Improvement in the ARC under the Director of the Centre n° 1228/1993;
- Ministerial Decree Establishing a Laboratory for Pesticide Residue and Heavy Metals Analysis n° 289/1994;
- Ministerial Decree Establishing a Central Laboratory at the Agricultural Research Centre for Research on Fisheries Development n° 1419/1994;
- Ministerial Decree Establishing a Central Laboratory for the Control of Veterinary Biologics n° 291/1996;
- Ministerial Decree Establishing a Central Laboratory for Agricultural Climate n° 815/1996;
- Ministerial Decree Establishing Further Bodies within the Structure of the ARC n° 1952/2002;
- Ministerial Decree Establishing the Laboratory for Veterinary Control n° 1686/2001;
- Ministerial Decree Establishing the Central Laboratory for Weed Research n° 224/2002;
- Ministerial Decree Changing the Name of the Central Laboratory for Food and Feed n° 30/2007.
- Ministerial decree no. 1033/ 2008 initiating a Fund for supporting of agricultural research and development.
- Ministerial decree no. 1034/ 2008 allocating funds for developing the agricultural sector program to manage the development and research fund.
- Ministerial decree no. 2278/ 2011 reforming the board of directors of the Agriculture Research and development support fund.
- Ministerial decree no. 120/2012 disbanding ARDF and all its assets, fund and any other departments and research units or bank accounts shall be given to: the ASDP, FISC-R.

3.2 Linked activities (other international and national initiatives)

3.2.1 European and Other International Donor Organisations

Besides the national research system, Donors play a major role in supporting the research activities carried out in Egypt, by research centres affiliated to the Universities and by other public and private institutions and centres.

While there is no accurate information available on the total foreign funding provided in Egypt, estimates show that foreign funding amounts to approximately 36% of the total research and development funding.

a. World Bank

The World Bank National Higher Education Enhancement Project (HEEP)

The World Bank, through a contribution of USD 50 million, is currently implementing the Higher Education Enhancement Project (HEEP) toward improving the quality of the higher education system in Egypt.

The HEEP project was launched in 2000 and will run to 2017. Its aim is to lay the foundation of a new education system through legislative reform, institutional restructuring and the establishment of independent quality assurance mechanisms and monitoring systems.

There are 25 sub-projects operating across the diverse areas with the objective of improving the quality, efficiency and relevance of higher education. One of the Higher Education Reform Strategy objectives is to deepen the capability to utilise scientific research and to develop scientific capacities, including in applied agricultural research.

b. Egypt-European Union

In July 2005, Egypt signed the Science and Technology Agreement with the European Union (EU) to extend and intensify research cooperation. The EU Seventh Framework Programme (FP7) and the Research Development and Innovation (RDI) Programme are the instruments that implement the above-mentioned agreement.

FP7 (2007-2013)

One of the objectives of FP7 is to “Facilitate participation in FP7 and maximise the synergies between the various EC instruments for Science and Technology cooperation”;

The EC has established a Road Map to assist Egypt’s participation in FP7 (2007-2008).

In order to move forward Egypt’s integration into the European Research Area Network (ERANET), 30 focal points have been established in the country under FP6 and FP7.

Egypt also participates in the ERANET “Coordination of agricultural research in the Mediterranean (ERANET 2007)”. Presently under FP7, Egypt ranks third among third country participants in terms of number of proposals submitted.

The Research Development and Innovation (RDI) Programme

With a grant of EUR 11 million over a period of three years that began in 2007, the Research Development and Innovation (RDI) Programme is managed by a Project Implementation Office set up by the Egyptian Ministry of Higher Education and Scientific Research.

The overall objective of the RDI is to contribute to enhancing Egypt’s economic growth and international competitiveness through improving its research and development performance. The programme targets both the research units/centres of higher education institutions and their scientists and researchers as individuals. The programme has two specific objectives: 1) Strengthening the link between research and development and the industry while enhancing a culture of innovation and technology transfer; 2) Facilitating Egyptian participation in the European Research Area Network (ERANET). This funding is aimed at strengthening capacity in research and innovation and complements the funding provided through FP7.

c. Egypt-USA: USAID

The United States Agency for International Development (USAID) is a traditional donor in Egypt whose assistance focuses on the development of the agricultural sector. USAID is presently working in agriculture and water resource management and is assisting Egypt to overcome its persistent problems of low rural income, underemployment, and unsustainable

water management practices. With the aim of securing the long-term sustainability of water resources, USAID has implemented a range of agriculture and water resource management programmes that cover policy reform, market development, research and extension, credit and infrastructure.

d. Egypt-European Member States (Germany, Italy, France, Sweden and Finland)

The above-mentioned EU member countries have established an agreement with Egypt to develop cooperation. Through the Egypt-Member States initiative, partners are generally funding the mobility of researchers and the research development fund in synergy with the FP7 programme. The areas of research in which Member State assistance is focused are the same as those for FP7: biotechnology, agriculture (in particular food production under environmental stress and in relation to climate change), energy conservation, and renewable energy.

e. Other International Organisations

Other international organisations that work in cooperation with Egyptian research institutes in the funding and implementing of projects include:

- CGIAR (Consultative Group in International Agricultural Research);
- CID (Consortium for International Development);
- CIDA (Canadian International Development Agency);
- CIHEAM (International Centre for Advanced Mediterranean Agronomic Studies), MAIB Bari;
- ICARDA (International Centre for Agricultural Research in the Desert Area);
- FAO (Food & Agriculture Organisation);*
- ICID (International Commission for Irrigation and Drainage);
- IPTRID (International Programme for Technology and Research in Irrigation and Drainage);
- IWRA (International Water Resources Association);
- JICA (Japanese International Cooperation Agency);
- NEDA (Netherlands Development Agency);
- UNDP (United Nations Development Programme);
- UNEP (UN Environmental Programme);
- UNESCO (United Nations Education and Scientific Organisation).

*It is important to consider that the FAO is currently implementing a TA project to establish a Monitoring and Evaluation Unit within the ARC. The objective is to foster “Programme Management” through supporting the ARC by establishing a Monitoring and Evaluation Unit and a Policy and Risk Management Unit. The project forecasts that the Results-based Monitoring and Evaluation Unit should become operational in the summer of 2012. The establishment of the Risk Management Unit will be carried out in accordance with the recommendations of the current International Risk Management consultant, to be fielded within this FAO TA project.

3.3 Results

The expected results are as follows:

Component A: Legal and Regulatory Reform

Modernise the Agricultural Research System through restructuring ARC HQ and each of the affiliated institutions. The new legislative act will strengthen the ARC coordinating role and forecast a new level of decision-making (e.g. the regrouping of institutes and laboratories into branches/departments according to their subject) and will address current overlapping

functions and develop synergies between institutes, laboratories and services and other agricultural research institutions under the MoALR.

- A.1: Presidential or (Prime-)/Ministerial Decree calling for the organisational restructuring of the ARC drafted and approved by the ARC;
- A.2: Statutes of ARC institutions developed and approved by the ARC;
- A.3: Secondary legislation (regulations, internal rules, mechanisms and procedures) of ARC institutions revised/updated/drafted and approved by the ARC.

Component B: Institutional and Administrative Reform

In alignment with international best practices and in accordance with European Research Area (ERA) principles and the EU *Acquis Communautaire*, the project aims to modernise the functions and services of the ARC through the implementation of the necessary regulatory operational and administrative procedures, as well as to re-design the ARC's organisational structure by strengthening its coordinating role at internal and external level and increasing the efficiency of its Human Resources (HR).

- B.1: The new organisational structure and restructuring Plan is developed for the ARC, its Branches/Departments and its Institutes and Units in order to modernise the ARC and enable it to effectively respond to research commitments and information-sharing mandates;
- B.2: The ARC strategy and its institutes mid-term/annual plans revised in line with best practices of European organisations and centres;
- B.3: Training Needs Assessment (TNA) elaborated;
- B.4: Human Resources Management System improved and the administrative capacity of the HR departments of the ARC and its institutions improved;
- B.5: Current training programmes and modules reorganised.

Component C: Management and Coordination and setup of a Management Information System (MIS)

The current National Agricultural Research Information Management System (NARIMS) developed by the Centre is weak and does not support the decision-making process.

An efficient MIS should be well integrated within a larger organisational context and should be used to examine the overlapping and on-going relationship between stakeholders, processes and technology systems. Moreover such an MIS should include, as a research tool, an updated database of agricultural research projects.

- C.1: Coordination is ensured between the various stakeholders involved in the research at internal and external, national and international level (including EU and other Donors);
- C.2: Web-based MIS developed that supports the ARC management in all its areas of operation (an integrated database that categorises research projects and enables the sharing of scientific documents and records) and ARC affiliates inter-connected in a single network;
- C.3: Conversion of research findings into innovation and technology improved;
- C.4: Cooperation between agro-food chain stakeholders and researchers improved;

- C.5: Quality, standards, certification and control process facilitated and organic production promoted;
- C.6: Awareness and communication among the agricultural researchers and between agricultural research stakeholders (internal and external) increased.

Component D: Institutional and Capacity Building/Promotion of knowledge for sustainable development

A strategic tool to this end would be to put in place a systematic training programme in order to enable the scientific and administrative staff to further their careers and to be continually updated in their respective sectors. Of particular importance is the researchers' need for training on horizontal issues such as leadership, management principles and practices, and project cycle management (PCM), as well as the need to promote the capacity of the researchers to engage in networking at an international level.

- D.1: Operational Capacity (Management, HR and technical/scientific skills) of ARC staff enhanced;
- D.2: ARC staff awareness of the related EU *acquis* increased and a plan for harmonising the local legislation with the EU *acquis* elaborated.

3.4 Activities:

A kick-off meeting will be organised at the start of the project.

Component A: Legal and Regulatory Reform

- A.1.1: Reviewing, assessing and proposing of the primary legal framework;
- A.1.2: Drafting and approving of a Presidential/Prime Ministerial Decree that defines a new structure for the ARC and establishes a clear legal basis enabling it to act as a single authority responsible for the coordination of the agricultural research system;
- A.2.1: Drafting and approving of Statutes for the ARC and all affiliated institutions;
- A.3.1: Drafting and approving of a Regulation of the ARC's operations;
- A.3.2: Drafting and approving of a Regulation of the patent and intellectual property for ARC studies, research projects and findings;
- A.3.3: Drafting and approving of a Regulation of the ARC's administration;
- A.3.4: Preparing and approving of internal auditing guidelines;
- A.3.5: Drafting and approving of an Internal Monitoring, Control, Evaluation and Risk Assessment Manual;
- A.3.6: Identification and preparation of additional secondary legislation (e.g. implementing rules and procedures for business incubators).

Component B: Institutional and Administrative Reform

- B.1.1: Preparing and carrying out of a functional review (vision, mission, roles, functions) of the Institutes, Laboratories and Services affiliated to the ARC including HQ and central administration;
- B.1.2: Preparing and approving of a plan for the restructuring of the ARC based on the outcomes of activities A.1.1, A.2.1 and B 1.1 and defining the roles, responsibilities, functions and tasks of each of the related units;

- B.2.1: Reviewing and approving of the ARC strategy (visions and missions of the centre and its institutions) and its current Mid-Term and Annual plans (performance indicators);
- B.3.1: Preparing and implementing of a Training Needs Assessment;
- B.4.1: Drafting and approving of an ARC Human Resources Management and Development Strategy (HRMDS) including a Training Strategy;
- B.4.2: Drafting and approving of human resource management procedures/documents for the definition of the following, based on the outcome of B.2.1:
- Human resource planning;
 - Job profiles;
 - Criteria for recruitment;
 - Promotion scheme for lower-ranking staff as well as for middle to high management;
 - Staff mobility;
 - Modification of job descriptions (including tasks) for all employees,
 - Etc.;
- B.4.3: Assessment of the existing computerised Human Resource Management Information System (HRMIS) at the ARC;
- B.4.4: Drafting and approving of a concept for the upgrading of the ARC HRMIS and the electronic interconnection of all ARC affiliates into a single network;
- B.4.5: Implementation of on-the-job training for the human resources departments of the ARC central administration and affiliated institutions in order to facilitate appropriate human resources management at ARC inter-institutional level (see above, secondary legislation);
- B.5.1: Revising of the training programmes and modules.

Component C: Management and Coordination and the setup of a Management Information System (MIS)

- C.1.1: Preparation and implementation of workshops on the following subjects: Partner research and networking methods; monitoring of agricultural research-related tenders and project funding opportunities from various donors;
- C.1.2: Establishment/improvement of cooperation and agreements/protocols with different ministries and agriculture-related institutions (produce guidelines, manuals), e.g. working group meetings on information exchange, etc.;
- C.1.3: Participation in Strategic International Agricultural Research Committee initiatives e.g. the Standing Committee on Agricultural Research (SCAR) etc.;
- C.2.1: Carrying out of (i) hardware (inventory of existing equipment) and software (inventory of existing websites, intranets and databases) needs assessment; (ii) staff training needs assessment in ICT¹;
- C.2.2: Preparation of tender specifications for the interactive ARC website (web portal) and fully integrated MIS with central data management, specification of

¹ It is planned to support ARC with a procurement contract financed separately by SAAP-PAO budget, not through the twinning project budget.

equipment needed for the web-based MIS, provision of software, provision of training in the operationalisation of the system;

C.2.3: Preparation of Standard Operating Procedures (SOPs) for the MIS in conjunction with the User Manual provided by the software supplier;

C.3.1: Organisation of an annual ARC Technology Transfer event and Round Table illustrating all results obtained by ARC researchers. Invite Researchers, Extensionists, Farmers and their Associations (with particular focus on Organic Agriculture);

C.3.2: Elaboration of procedures for the regulating of coordination and communication and interface between Researchers/Extension technicians/Farmers' Associations/etc.;

C.4.1: Preparation and establishment of one pilot working group per single product chain (e.g. Wheat farmer and Bakery industries);

i) between related Researchers;

ii) between stakeholders in the agro-food production, processing and marketing chain (e.g. Farmer, Industry and Consumers' Associations, sector-related NGOs etc.); and

iii) between researchers (i) and stakeholders (ii);

C.5.1: Establishment of coordination procedures with food safety and organic-related institutions as regards Quality, Standards, Control, Organic Agriculture and Extension (identify, prepare, develop and support a pilot project/initiative in the Extension of the Organic Agriculture and Food Safety sector);

C.5.2: Preparation and implementation of a workshop on subjects related to C.6.1;

C.6.1: Support ARC to produce newsletters for the agricultural research sector on a regular basis;

C.6.2: Support ARC to prepare and implement TV workshops and video conferences (ARC institutions and research stations) on agricultural science and research with the participation of the ARC HQ and research stations;

C.6.3: Support ARC to prepare and implement monthly meetings with the participation of all ARC branches/ institutes.

Component D: Institutional and Capacity Building/Promotion of knowledge for sustainable development

D.1.1: Preparation and implementation of a training programme for staff at the ARC and its affiliated Institutes (Training of Trainers) in Project Cycle Management, etc.;

D.1.2: Preparation and implementation of a training programme for staff at the ARC and its affiliated Institutes (Training of Trainers) in self-assessment methods based on financial, structural, management and scientific criteria;

D.1.3: Preparation and implementation of a training programme for staff at the ARC and its affiliated Institutes (Training of Trainers) in the costs of research/extension/training/services and the benefits of the research as well as environmental impact analysis tools, etc.;

D.1.4: Preparation and implementation of a training programme/workshop on Internal Auditing, Monitoring, Control, Evaluation and Risk Assessment procedures, etc.;

- D.1.5: Implementation of on-the-job training at the Internal Evaluation, Monitoring, Control and Risk Assessment Unit within the Central Administration of the ARC, etc.;
- D.1.6: Preparation (materials, target groups, etc.) and implementation of a training programme in EU best practices in the field of human resources management and development;
- D.1.7: Organisation of a study trip on administrative subjects (7 ARC participants x 5 days, including interpreter);
- D.1.8: Preparation and implementation of a training programme for identified human resource personnel in the following subjects:
- Elaboration of the HR Strategy;
 - Human resource planning;
 - Career development (administrative staff and researchers);
 - Performance evaluation methods;
 - Staff mobility;
 - Planning of training;
 - Cost analysis and other finance management issues (to be identified);
 - Etc. (to be defined);
- D.2.1: Preparation and implementation of a seminar/workshop/training on EU regulations and directives (EU *acquis*) for each main specific area pertaining to agricultural research (to be defined by the Member State).

A closing workshop will be organised at the end of the project.

3.5 Means/Input from the MS Partner Administration:

The implementation of the activities mentioned above will require input from specialised medium- and short-term experts within each component.

3.5.1 Profile and Tasks of the Project Leader

The Project Leader (PL) will be responsible for the overall planning and implementation of the thrust of the Member State (MS) inputs in this twinning project. The PL is expected to devote a minimum of 3 days per month to the progress of the project in addition to one visit to the beneficiary country (BC) every 3 months. In cooperation with the PL counterpart appointed by the ARC, she/he will be responsible for the organisation of the project's Steering Committee meetings which will include the Resident Twinning Adviser (RTA) and representatives of the Programme Administration Office (PAO) and EU Delegation.

Profile:

The PL should be a high-ranking official, long-term civil servant from a MS, graduate in agriculture, economics, science or a related discipline.

Management Capacity:

- Inter-personal and leadership skills;
- Experience in negotiations at ministerial and intra-EU levels;
- Working level of the English language
- Work experience in the Mediterranean region is an advantage

Previous Project Management Experience:

- At least 15 years of demonstrated management experience in the field of agricultural research in relation with agricultural strategies, policies and regulations formulation;
- Previous experience in institutional and capacity building, together with public administration modernization, preferably in the agricultural sector;
- Knowledge of EU legislative and operational activities related to the various components of the project.

Tasks:

- The overall direction of the Project in cooperation with the PL counterpart;
- The achievement of the mandatory results;
- Oversight of project implementation;
- Mediation in the event of conflict;
- Oversight of the financial management of the project;
- Supervision and support of the RTA;
- Preparation, with the assistance of the RTA, of interim quarterly and final reports and mission certificates;
- Moderation and co-chairing the Project Steering Committee (PSC) meetings.

3.5.2 Profile and Tasks of the Resident Twinning Adviser (secondment 24 months)

Profile:

The RTA should be a civil servant or equivalent staff from a MS, graduate in agriculture, economics, science or a related discipline, and should have at least 10 years of experience (with at least 5 years at a senior managerial level) in a government agricultural research administration or a mandated agricultural research administrative body of an EU Member State.

Technical Expertise:

- Inter-personal and communication skills; previous experience of managing multi-disciplinary teams;
- Experience in twinning or international cooperation project teams will be an asset;
- Working level of the English language.

Previous Project Management Experience:

- She/he must be a civil servant or equivalent staff;
- 10 years of hands-on experience in developing and implementing strategies, policies and regulations in the field of agricultural research;
- Experience within a European agricultural research system;
- At least 3 years of experience/involvement in the reform and development of agricultural research systems;
- Experience of the enforcement of the EU *acquis* in the field of agricultural research.

Tasks:

- Liaise with the ARC PL and RTA counterpart and project working groups;
- Manage day-to-day operations;
- Manage the medium-/short-term experts (MTEs/STEs);

- Monitor project implementation and the achievement of project objectives;
- Provide the ARC with training and advice on the management and coordination of research issues;
- Arrange internships and study tours to EU countries for ARC staff;
- Prepare interim quarterly reports and final reports to be submitted to the PL;
- Maintain close contact with the PAO and the EU Delegation;
- Prepare terms of reference (ToR) for all MTE and STE missions.

RTA Assistant

In the implementation of his/her daily tasks, the RTA will be supported by an assistant, of Egyptian nationality, who will be hired by the Twinning project for the entire period of project implementation (24 months).

3.5.3 Profile and Tasks of the Short-term Experts

The RTA will be assisted by a pool of medium and short-term experts, complementing the know-how of the RTA, in order to cover the full range of expertise required by the project. Medium and Short term experts will be either civil servants or staff members of a mandated body from the selected MS, working in the field of agricultural research. They will have the appropriate qualifications and necessary skills to implement the above-mentioned activities.

Component A: Legal and Regulatory Reform

Senior Expert (Legal and Regulatory Reform Expert)

Profile

Qualification and skills

- University degree in law or a related discipline (preferably a Master's or PhD);
- See footnote ²

General professional experience

- At least 8 years of experience in developing and enforcing legal reforms including adoption or approximation of the relevant EU *acquis communautaire*;
- At least 3 years of experience in a management position in a state institution/ mandated body responsible for agricultural research.

Specific professional experience

- Sound knowledge of the legal and regulatory framework of agricultural research institutions;
- Experience in EU legal practices in the agricultural research field;
- Previous experience in agricultural research centre/ administration services;
- Substantial experience in management in general and in managing organisational change processes in particular;

- ² Working level of the English language
- Good PC literacy (Word, Excel, PowerPoint);
- Strong managerial and coordination skills;
- Good inter-personal and team working skills.

- Working experience in implementing/advising on EU or EU-MS regulations and/or proven knowledge of agriculture and research centres' legal and regulatory framework in the EU would be an asset;
- Experience of working in a multicultural environment is an asset.

Tasks

- Advise the ARC and its institutions on legal reform;
- Review the current status of the ARC legal and regulatory framework and propose elements for strengthening and/or reform;
- Participate in, and lead the process of setting up a regulatory framework;
- Assist the team of short-term experts in drafting legal and regulatory reform measures and approximations;
- Work with the RTA and other experts to implement planned activities;
- Assist the RTA in managing the recruitment and input of STEs and in drafting ToR for each STE assignment.

Expert (Legal and Regulatory Reform Expert)

Profile

Qualification and skills

- University degree in law or a related discipline;
- Please refer to footnote 2.

General professional experience

- At least 3 years of experience in developing and enforcing legal reforms.

Specific professional experience

- Sound knowledge of the legal and regulatory framework of agricultural research institutions;
- Experience in EU legal practices in the agricultural research field;
- Substantial experience in drafting or approximation of the relevant EU *acquis communautaire*;
- Previous experience in agricultural research centre/ administration services;
- Working experience in implementing/advising on EU or EU-MS regulations and/or proven knowledge of agriculture and research centres' legal and regulatory framework in the EU would be an asset;
- Experience of working in a multicultural environment is an asset.

Tasks:

- Conduct an assessment of the legal and regulatory framework, in line with the European *acquis* and best practices in selected Member States;
- Review the current status of the ARC legal and regulatory framework and propose elements for strengthening and/or reform;
- Draft/Set up the legal and regulatory framework for the ARC and its institutions in line with the European *acquis*.

Note: The experts are responsible for the implementation of all activities under Component A. Maximum number of working days 155 are available.

Component B: Institutional and Administrative Reform

Senior Expert in Institutional and Administrative Reform

Profile

Qualification and skills

- University degree in organisational management/science or a related discipline (preferably a Master's or PhD);
- Please refer to footnote 2.

General professional experience

- At least 8 years of experience in the field of agricultural research administration focusing on strategic development, management and institutional building;
- At least 3 years of experience in a management position in a state institution/mandated body responsible for agricultural research.

Specific professional experience

- Sound knowledge of agricultural research institutions;
- Experience in the implementation of new methodological and organisational solutions;
- Previous experience in agricultural research centre/ administration services;
- Substantial experience in management in general and in managing/leading organisational change processes in particular;
- Experience and/or participation in the reform and development of EU agricultural research management is an asset;
- Experience of working in a multicultural environment is an asset.

Tasks

- Advise the ARC and its institutions on institutional and administrative restructuring;
- Participate in, and lead the process of conducting a functional review and preparing the restructuring plan and its implementation;
- Assist the team of short-term experts in preparing and implementing the restructuring plan;
- Prepare and provide on-the-job training to the senior and junior managers of the ARC and its institutions;
- Work with the RTA and other experts to implement planned activities;
- Assist the RTA in managing the recruitment and input of STEs and in drafting ToR for each STE assignment.

Expert in Institutional and Administrative Reform

Profile

Qualification and skills

- University degree in management/science or a related discipline;

- Please refer to footnote 2.

General professional experience

- At least 3 years of experience in management;
- At least 3 years of experience in a management position in a state institution/ mandated body responsible for agricultural research.

Specific professional experience

- Sound knowledge of EU agricultural research institutions;
- Experience in the implementation of new methodological and organisational solutions;
- Experience in the reform and development of EU agricultural research management;
- Previous experience in agricultural research centre/ administration services;
- Substantial experience in management in general and in managing/leading organisational change processes in particular;
- Experience of working in a multicultural environment is an asset.

Tasks:

- Carry out a functional review and prepare and advise the ARC management in the implementation of a plan for the restructuring of the ARC under the leadership of the Mid-Term Experts in Institutional and Administrative Reform;
- Review of the ARC strategy, Mid-Term and Annual plans.

Senior Expert in Human Resources Management and Development

Profile

Qualification and skills

- University degree in human resources management and labour relations or a related discipline (preferably a Master's or PhD);
- Please refer to footnote 2.

General professional experience

- At least 8 years of professional experience in the field of human resources;
- At least 5 years of professional experience in the field of human resources management, including the development of training strategies, human resources manuals and staff evaluation systems;
- At least 3 years of experience as HR manager in the agricultural research administration.

Specific professional experience

- Experience in the strategic planning of human resources management, development, training, management training, counselling, and performance management;
- Demonstrated knowledge of EU human resources policies, standards and procedures;
- Sound knowledge of the automatised HRMIS used in EU-MS agricultural research administrations;
- Previous experience in agricultural research centre/ administration services;
- Experience of working in a multicultural environment is an asset.

Tasks

- Participate in, and lead the process of:
 - ✓ Drafting an ARC Human Resources Management and Development Strategy (HRMDS) including a Training Strategy;
 - ✓ Drafting human resource management procedures/documents;
 - ✓ Reviewing the current automatised Human Resources Management Information System (HRMIS);
 - ✓ Carrying out a Training Needs Assessment;
 - ✓ Revising the training programmes and modules;
- Prepare and implement on-the-job training for the human resources departments;
- Work with the RTA and other experts to implement planned activities;
- Assist the RTA in managing the recruitment and input of STEs and in drafting ToR for each STE assignment.

Expert in Human Resources Management and Development

Profile

Qualification and skills

- University degree in human resources management and labour relations or a related discipline;
- Please refer to footnote 2.

General professional experience

- At least 3 years of professional experience in the field of human resources management including the development of human resources management procedures, development strategies, human resources manuals and staff evaluation systems.

Specific professional experience

- Experience in the strategic planning of human resources management, development, training, management training, counselling, and performance management;
- Sound knowledge of EU human resources policies, standards and procedures;
- Sound knowledge of the automatised HRMIS used in EU-MS agricultural research administrations;
- Previous experience in agricultural research centre/ administration services;
- Experience of working in a multicultural environment is an asset.

Tasks

- Drafting of an ARC Human Resources Management and Development Strategy (HRMDS) including a Training Strategy;
- Drafting of human resources management procedures/documents;
- Revision of the training programmes and modules.

Senior Expert IT and Information Management Expert

Profile

Qualification and skills

- University degree in information technology or a related field;
- Please refer to footnote 2.

General professional experience

- At least 8 years of professional experience in information technology, 3 years of this in management level (adoption or approximation of relevant EU management and information technology).

Specific professional experience

- Experience in the development of automatised EU human resources management information systems;
- Sound knowledge of the automatised HRMIS used in EU-MS agricultural research administrations;
- Previous experience in agricultural research centre/ administration services;
- Experience of working in a multicultural environment is an asset.

Tasks

- Assess the existing computerised Human Resource Management Information System (HRMIS);
- Draft a concept for the upgrading of the ARC HRMIS, including hardware and software specifications.

Note: The experts are responsible for the implementation of all activities of Component B. Maximum number of working days 210 are available.

Component C: Management and Coordination and the setup of a Management Information System (MIS)

Expert IT and Information Management Expert

Profile

Qualification and skills

- University degree in information technology or a related field;
- Please refer to footnote 2.

General professional experience

- At least 3 years of professional experience in management and information technology (adoption or approximation of relevant EU management and information technology).

Specific professional experience

- At least 3 years of experience in the development of computer-based human resources management information systems;
- Recent experience in the design and development of IT systems for the management of information in the research field;
- Sound knowledge of the automatised HRMIS used in EU-MS agricultural research administrations;
- Previous experience in agricultural research centre/ administration services;

- Experience of working in a multicultural environment is an asset.

Tasks

- Carry out software and hardware inventory;
- Support the RTA in the preparation of tender specifications;
- Prepare Standard Operating Procedures.

Expert in management and coordination of the agricultural research works and technology transfer

Profile

Qualification and skills

- A graduate in law, agriculture, economics, engineering, science or a related discipline;
- Please refer to footnote 2.

General professional experience

- At least 3 years of experience in developing and strengthening the legal/institutional/administrative functions of a research organisation (adoption or approximation of the relevant EU *acquis*);
- At least 3 years of experience in a position in a state institution/mandated body responsible for agricultural research;
- Good initiative, analytical and team working skills.

Specific professional experience

- Sound knowledge of agricultural research institutions;
- Experience in the administration of agricultural research systems at a responsible state institution/mandated body, knowledge of EU legislation relevant to research transfer (e.g. spin out/spin off) and agricultural research;
- Experience in developing and conducting training programmes in subjects relevant to the project;
- Previous experience in agricultural research centre/ administration services;
- Experience in the implementation of new methodological and organisational solutions;
- Substantial experience in management in general and in managing organisational change processes in particular.

Tasks:

- Establishment of coordination procedures with food safety and organic-related institutions as regards Quality, Standards, Control, Organic Agriculture and Extension;
- Prepare and implement workshops, and/or other communication initiatives (e.g. TV and video conferences, newsletters etc.);
- Advise the ARC on their specific expertise;
- Transfer knowledge, according to ToR prepared by RTA and Beneficiary Country (BC) partners;
- Carry out on-the-job training.

Note: The experts are responsible for the implementation of all activities of Component C. Maximum number of working days 75 are available.

Component D: Institutional and Capacity Building/Promotion of knowledge for sustainable development

2 Senior Expert Institutional and Capacity Building/Promotion of knowledge for sustainable development

Trainers in:

- ✓ EU regulations and directives (EU acquis);
- ✓ Specific agricultural science research topics;
- ✓ Human Resources management and development;
- ✓ Internal Auditing, Monitoring, Control, Evaluation, Risk Management and Assessment;
- ✓ Environmental impact analysis tools;
- ✓ Cost benefit analysis of research and self-assessment methods;
- ✓ Project Cycle Management.

Profile

Qualification and skills

- A graduate in law, agriculture, economics, engineering, science or another relevant discipline;
- Degree or studies in training and adult education (MSc or PhD);
- Please refer to footnote 2.

General professional experience

- At least 8 years of experience in developing and conducting training programmes in subjects relevant to the project;
- At least 3 years of experience in a position in a state institution/mandated body responsible for agricultural research;

Specific professional experience

- Sound knowledge of EU agricultural research systems;
- Experience in EU training and human resource capacity building in the field of agricultural research;
- Experience in developing and conducting training programmes in subjects relevant to the project.

Tasks:

- Prepare and implement a training programme in the related field.

Note: The experts are responsible for the implementation of all activities of Component D. Maximum number of working days 125 are available.

4 Institutional Framework

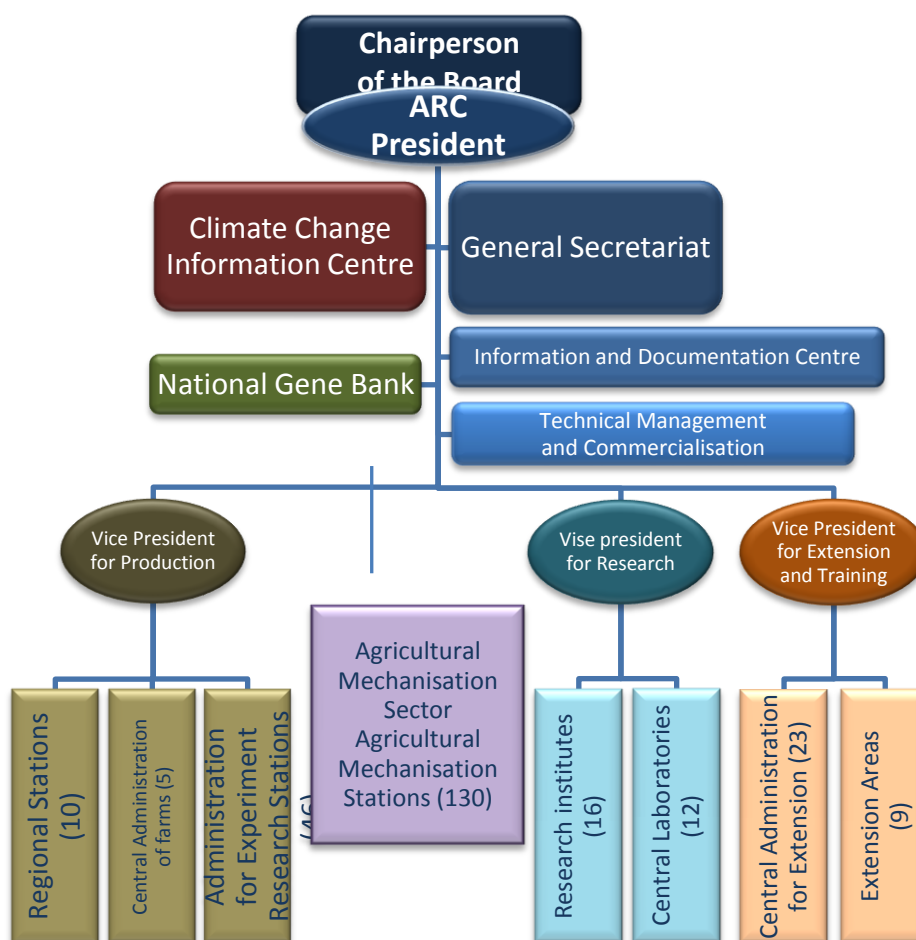
Overview of the Institutional Setup of the Agricultural Research Centre

The current organisational structure of the ARC under the MoALR consists of the Board of Directors responsible for a high number of administrative services, 16 research institutes, 8

central laboratories and 4 branch laboratories, supervised by the Vice-President of Research, as shown in Diagram 2.

Analysing the information reported during the project fiche preparation, the European consultants contracted to draft this twinning fiche observed that ARC is a highly complex structure. There are too many organisations and their degree of integration and coordination is low. Several services and institutes under the presidency of the ARC have similar tasks and functions. Similarity in the functions of such a high number of organisations complicates the clear definition of responsibility and may create conditions for the overlapping and duplication of duties.

Diagram 2: Current Organisational Structure of the ARC



All institutions under the ARC are managed by the Board of Directors and administrated by the central administration under the supervision of the President of the ARC. The complete structure of the ARC is described in Annex 3.

The expected reform of the structure of the ARC should strengthen the functions and role of Coordination and Evaluation and will re-design its structure as described in the table in Annex 1.

5 Budget

The maximum total budget for the Twinning Project is € 1,400,000

6 Implementation Arrangements

6.1 Implementing Agency Responsible for Tendering, Contracting and Accounting (PAO)

The Programme Administration Office (PAO) at the Egyptian Ministry of International Cooperation is in charge of the coordination of all activities and the administrative management of the Support to the Association Agreement Programme (SAAP).

The PAO will be the responsible institution for the management of this twinning project, particularly for tendering, contracting and accounting, in accordance with the procedures of ex-ante control defined in the Practical Guide to contract procedures financed from the General Budget of the EC in the context of external actions.

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6.2 Main Counterpart in the Beneficiary Country

Ministry of Agriculture and Land Reclamation, Agricultural Research Centre
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The PL counterpart is:

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6.3 Contracts

A number of small service and supply contracts (printing studies results, translation and interpretation) will be contracted applying Annex 4 on contract procedures.

In addition and if needed, the PAO intends to enter into Supply Contracts as required for the different components of the twinning project³. This will be funded separately (outside of this twinning budget), through the SAAP budget. The supply will be provided based on the needs

³ In particular for activities C.3.1 and C.3.2

assessment to be undertaken by the experts during the implementation of the twinning project.

The BC will make available for the project team a smart office with appropriate equipment (including computers, internet access, telephone, fax, photocopier, etc.) for the RTA, RTA Counterpart, RTA Assistant, MTEs and STEs on ARC premises and near the office of the BC Project Leader.

7 Implementation Schedule (indicative)

7.1 Launching of the Call for Proposals: 1st March 2014

7.2 Start of project activities: 1 November 2014

7.3 Project completion: 30 October 2016

7.4 Duration of the execution period: 24 months plus 3 months for closure

8 Sustainability

It is expected that the twinning project will work closely with the ARC PL and in cooperation with the management and staff of the ARC and the other beneficiaries, so as to ensure that all have a clear sense of ownership of the project, thereby helping to ensure the sustainability of the results.

It is particularly important that the following functions of the ARC be strengthened; i) the elaboration and adoption of precise operative secondary legislation; ii) the introduction of the evaluation process as a key decision-making tool as regards all activities involved in the research cycle (including human resources policy); and iii) the development of the ARC's role in improving coordination among agricultural research organisations (including Donors) at national level as well as in improving cooperation with international research organisations.

The above measures will increase synergy and effectiveness as well as strengthening the sustainability of the project outcomes. The adoption of administrative implementation regulations at the ARC will also contribute to sustainability.

The MoALR is expected to increase the operational budget of the ARC, where necessary, to cover the future maintenance and operating costs of the new MIS system, thereby ensuring its sustainability. The ARC is also expected to have sufficient funds to finance the increase in staff necessitated by the outcomes of this project. This in turn ensures the sustainability of these outcomes.

The procurement of supplies will contribute to the achievement of the project's purposes and ensure the sustainability of the project results⁴.

The transfer of knowledge through institutional twinning with a corresponding EU institution is expected to provide sustainable development; this is envisaged if the results outlined are fully achieved. To maximise sustainability, there must be a particular focus on maintaining leadership by ARC management and on ensuring that continuous training programmes are conducted.

⁴ See paragraph 6.3 contracts

9 Cross-Cutting Issues

The implementation of the project will have no adverse effect on the environment. On the contrary, a more effective national surveillance management system should reduce the risk of pest outbreaks and reduce potential crop damage, which will contribute to a better and more stable environment.

The project will seek to ensure that equal treatment is accorded to male and female staff at the ARC and this will also apply to all other stakeholders participating in project activities and training programmes.

10 Conditionality and Sequencing

It is crucial to the success of the twinning project that the ARC and its affiliated institutions be committed to implementing the recommendations agreed upon with the project team. It is recognised that the project's implementation will result in some changes in the structure, functions and procedures of the ARC and other stakeholders, and that some of these changes may be difficult to manage. These changes are, however, necessary to achieve the targeted results, purposes and overall objective of the project.

It is important that the ARC and its institutions recognise that the changes resulting from the twinning project itself are part of a process of continuing improvement toward increasing the operational efficiency and effectiveness of the Egyptian agricultural research system in line with international norms and best practices. This process is also essential to ensuring continued access to export markets; to ensuring consumer confidence in the quality of Egyptian products of plant origin; to maintaining a high degree of protection of Egyptian agricultural production; and to strengthening food security.

Finally, it is also important that individual staff members at all levels understand that it is their responsibility to ensure the quality of their work. In this regard, the Government of Egypt needs to ensure that the staff pay structure is commensurate with the qualifications and skills required of the staff.

The completion date for each activity is proposed in the logframe matrix and in the indicative implementation chart (Annexes 1 and 2). Some activities are dependent on the completion of other activities in the same or another component. For example, it is necessary that the drafting of a regulation establishing a legal basis for the ARC as under Component A be completed before the plan for restructuring the ARC under Component B.

The training activities in Component D need to be coordinated to ensure that there are sufficient researchers available to attend the training, in case the target training group for one activity is the same as for another.

The supply of ICT software and hardware to support the implementation of the MIS and related ICT system linking ARC software to its institutes, laboratories and regional research stations is not yet identified and will be subject to discussion and verification with the project stakeholders (ARC, PAO and the EU Delegation).

ANNEXES TO PROJECT FICHE:

- Annex 1: Logical Framework matrix in standard format
- Annex 2: Detailed Implementation Chart
- Annex 3: ARC Current Structure
- Annex 4: ARC Proposed Structure

Annex 1: Logical Framework matrix in standard format

	Objectively verifiable indicators	Sources of verification	Assumptions
Overall Objective			
To contribute to the increased efficiency and sustainability of the agricultural sector in Egypt by improving agricultural productivity, food safety and quality of agricultural production through enhanced agricultural research overall performance.			
Project Purpose	Objectively verifiable indicators	Sources of verification	Assumptions
The efficiency and sustainability of the agricultural research system in Egypt is increased by consolidating the legal basis and strengthening the coordination and operational capacity of the Agricultural Research Centre in accordance with EU best practices.	<ul style="list-style-type: none"> • Regulatory framework of the ARC improved in line with EU best practices • Evaluation Monitoring, Control and Risk Assessment (Management) and Co-ordination procedures and skills of ARC staff improved • Administrative capacity of ARC increased Improved Quality Certification and Standardisation system 	<ul style="list-style-type: none"> • ARC Reports Project Interim Reports • Secondary legislation 	<ul style="list-style-type: none"> • Proactive co-operation by the ARC • Supported by the Minister of Agriculture • Full support by the ARC president • Availability of the Budget • No delay in adopting of legal act
Results	Objectively verifiable indicators	Sources of verification	Assumptions
Component A: Legal and Regulatory Reform			
A.1: Presidential/Prime Ministerial Decree calling for the organisational	<ul style="list-style-type: none"> • Decree on reform measures of the ARC 	<ul style="list-style-type: none"> • Decree issued on the official newspaper 	<ul style="list-style-type: none"> • Favourable Political environment

Results	Objectively verifiable indicators	Sources of verification	Assumptions
restructuring of the ARC drafted and approved by the ARC	<ul style="list-style-type: none"> • New ARC organisational structure 	(Egyptian Gazette)	<ul style="list-style-type: none"> • Full cooperation of the project stakeholders • No delay in adopting of legal act
A.2: Statutes of ARC institutions developed and approved by the ARC	<ul style="list-style-type: none"> • Statutes of ARC endorsed by the Minister of MoALR • Statutes of affiliated institutions endorsed by the President of the ARC 	<ul style="list-style-type: none"> • Decree issued by the Minister of MoALR • Decree/Order issued by the President of the ARC 	Presidential/Prime/ Ministerial Decree (see A.1) approved by ARC
A.3: Secondary legislation (regulations, internal rules, mechanisms and procedures) of ARC institutions revised/ updated/drafted and approved by ARC	<ul style="list-style-type: none"> • Legal acts endorsed by the President of the ARC 	<ul style="list-style-type: none"> • Decree/Order issued by the President of the ARC 	
Component B: Institutional and Administrative Reform			
B.1: A new organisational structure and restructuring Plan developed for the ARC, its Branches and its Institutes in order to modernise the ARC and enable it to effectively respond to research commitments and information-sharing mandates	<ul style="list-style-type: none"> • Restructuring plan endorsed by the Minister of MoALR, implemented and ARC functioning 	<ul style="list-style-type: none"> • Copy of the decree issued by the relevant stakeholder 	<ul style="list-style-type: none"> • Decree approved and implemented
B.2: The ARC's strategy and its Institutes' Mid-Term/Annual plans revised in line with best practice of European organisations and centres	<ul style="list-style-type: none"> • ARC's new strategy endorsed by the ARC president • Mid-Term plan and Annual plan(s) endorsed by the President of the ARC 	<ul style="list-style-type: none"> • Copy of the strategy endorsed is available • Decree/Order issued by the ARC President 	<ul style="list-style-type: none"> • Proactive co-operation by the ARC including research institutes. • Full support by the ARC president • Supported by Minister of ALR

Results	Objectively verifiable indicators	Sources of verification	Assumptions
			<ul style="list-style-type: none"> • No delay in adopting of legal act.
B.3: Training Needs Assessment (TNA) elaborated	<ul style="list-style-type: none"> • TNA report 	<ul style="list-style-type: none"> • Copy of the report 	<ul style="list-style-type: none"> • Cooperation of ARC
B.4: Human Resources Management System improved and the administrative capacity of the HR departments of the ARC and its institutions improved	<ul style="list-style-type: none"> • New ARC human resources management and development strategy endorsed by the President • New operational and administrative procedures endorsed by the ARC President • HRMIS upgraded in line with new procedures • Number of trained staff 	<ul style="list-style-type: none"> • Decree/Order issued by the President of the ARC 	<ul style="list-style-type: none"> • Staff career policies are approved by ARC
B.5: Current training programmes and modules reorganised	<ul style="list-style-type: none"> • New training programme 	<ul style="list-style-type: none"> • Copy of the training programme 	<ul style="list-style-type: none"> • Cooperation of ARC
Component C: Management and Co-ordination and setup of a Management Information System (MIS)			
C.1: Co-ordination is ensured between the various stakeholders involved in the research at internal and external, national and international level (including EU and other Donors)	<ul style="list-style-type: none"> • Minutes of the meeting • Number of MoU, agreements and protocols • Correspondences • Join ERAWATCH 	<ul style="list-style-type: none"> • ARC reports • ERAWATCH and ERA websites 	<ul style="list-style-type: none"> • Commitment of researchers/management • Knowledge of English • Level of barriers that hinder the cooperation
C.2: Web-based MIS developed that supports the ARC management in all its areas of operation (an integrated database that categorises research projects and enables	<ul style="list-style-type: none"> • Operational and regularly updated web-based MIS • MIS Manual/handbook for users 	<ul style="list-style-type: none"> • ARC website and integrated MIS • Project Interim Reports 	<ul style="list-style-type: none"> • High level of interest on part of ARC staff • Job description of all

Results	Objectively verifiable indicators	Sources of verification	Assumptions
the sharing of scientific documents and records) and ARC affiliates inter-connected in a single network			ARC researchers and administrative staff ... • Accuracy of data and information
C.3: Conversion of research findings into innovation and technology improved	<ul style="list-style-type: none"> • Number of produced concept notes, • Number of research outputs fostered by ARC. • Number of copyrights, trademarks • Number of Spin off/Spin out 	<ul style="list-style-type: none"> • List of patents with funding contracts • List of copyrights, trademarks 	<ul style="list-style-type: none"> • Business incubator is in place • Spin-off/Spin-out regulation approved by ARC • Innovation funding institutions are in place
C.4: Cooperation between agro-food chain stakeholders and researchers improved	<ul style="list-style-type: none"> • Chain group meetings report (pilots) • Number of research proposed 	<ul style="list-style-type: none"> • Copy of the Chain group report 	<ul style="list-style-type: none"> • Motivation from the side of the MALR and ARC • Motivation from the side of Agricultural/Agro-food stakeholders
C.5: Quality, standards, certification and control process facilitated and organic production promoted	<ul style="list-style-type: none"> • Accreditation and Guidelines Certificate of Origin and Quality Standard Certificate • Volume/Quantity of organic products 	<ul style="list-style-type: none"> • ARC documents • Other reference agencies • National statistics 	<ul style="list-style-type: none"> • Consumers awareness on the importance of the Quality implemented • Consumers trust
C.6: Awareness and communication among the agricultural researchers and between agricultural research stakeholders (internal and external) increased	<ul style="list-style-type: none"> • Regularity of the newsletter • Number of TV workshops • Number of video workshops and conferences • Minutes of the meetings 	<ul style="list-style-type: none"> • Video materials are available in the ARC office • Protocols of the meetings are available 	<ul style="list-style-type: none"> • Cooperation between agricultural research stakeholders • Availability of TV channels

Results	Objectively verifiable indicators	Sources of verification	Assumptions
		in the ARC office	
Component D: Institutional and Capacity Building/Promotion of knowledge for sustainable development	Objectively verifiable indicators	Sources of verification	Assumptions
D.1: Operational Capacity (Management, HR and technical/scientific skills) of ARC staff enhanced	<ul style="list-style-type: none"> • Number of training courses, • Number of trained ARC staff (including trainers) • Training programmes provided • Report on event, including agenda, list of participants, presentations, evaluation grid filled out by the participants 	<ul style="list-style-type: none"> • Attendance list • Training plan of MS twinning partner. • ARC Reports Project Interim Reports • Training materials. • Report and training materials available on the website 	<ul style="list-style-type: none"> • Proactive co-operation of ARC researchers • Cooperation of the trainees
D.2: ARC staff awareness of the related EU acquis increased and a plan for harmonising the local legislation with the EU acquis elaborated.	<ul style="list-style-type: none"> • Number of training courses, • Number of trained ARC staff (including trainers) • Training programmes provided to ARC in line with MS twinning partner. • Report on event including agenda, list of participants, presentations, evaluation grid filled out by the participants, 	<ul style="list-style-type: none"> • Reports on all trainings carried out 	<ul style="list-style-type: none"> • Number of trainings • Number of trained ARC staff

Activities	Means		Assumptions
Component 0: Project Inauguration and closing			
Kick-off meeting			
Closing Conference			
Component A: Legal and Regulatory Reform			
A.1.1: Reviewing, assessing, proposing of the primary legal framework			
A.1.2: Drafting and approving of a Presidential/			
A.2.1: Drafting and approving of Statutes			
A.3.1: Drafting and approving of a regulation			
A.3.2: Drafting and approving of a Regulation of the patent			
A.3.3: Drafting and approving of a Regulation of the ARC's administration			
A.3.4: Preparing and approving of internal auditing guidelines			
A.3.5: Drafting and approving of an Internal Monitoring,			
A.3.6: Identification and preparation of additional secondary legislation			
Component B: Institutional and Administrative Reform			
B.1.1: Preparing and carrying out of a functional review			
B.1.2: Preparing and approving of a plan for the restructuring			
B.2.1: Reviewing and approving of the ARC strategy			
B.3.1: Preparing and implementing of a Training Needs Assessment			
B.4.1: Drafting and approving of an ARC Human Resources Management			
B.4.2: Drafting and approving of human resource management procedures			
B.4.3: Assessment of the existing computerised Human Resource			
B.4.4: Drafting and approving of a concept			
B.4.5: Implementation of on-the-job training			
B.5.1: Revising of the training programmes and modules			

Activities	Means	Assumptions
Component C: Management and Co-ordination and setup of a Management Information System (MIS)		
C.1.1: Preparation and implementation of workshops		
C.1.2: Establishment/improvement of co-operation and agreements/protocols		
C.1.3: Participation in Strategic International Agricultural Research		
C.2.1: Carrying out of (i) hardware		
C.2.2: Preparation of tender specifications		
C.2.3: Preparation of Standard Operating Procedures (SOPs)		
C.3.1: Organisation of an annual ARC Technology Transfer		
C.3.2: Elaboration of procedures		
C.4.1: Preparation and establishment of one pilot		
C.5.1: Establishment of co-ordination procedures		
C.5.2: Support ARC to Preparation and implementation of a workshop on subjects related to C.6.1		
C.6.1: Support ARC to produce newsletters		
C.6.2: Support ARC to prepare and implement TV workshops		
C.6.3: Support ARC to Prepare and implement monthly meetings		
<i>Component D: Institutional and Capacity Building/Promotion of knowledge for sustainable development</i>		
D.1.1: Preparation and implementation of a training programme for staff at the ARC and its affiliated Institutes (Training of Trainers) in Project Cycle Management, etc.		
D.1.2: Preparation and implementation of a training programme for staff at the ARC and its affiliated Institutes (Training of Trainers) in self-assessment methods based on financial, structural,		

Activities	Means		Assumptions
D.1.3: Preparation and implementation of a training programme for staff at the ARC and its affiliated Institutes (Training of Trainers) in the costs of the research/extension			
D.1.4: Preparation and implementation of a training programme/workshop on Internal Auditing,			
D.1.5: Implementation of on-the-job training at the Internal Evaluation, Monitoring, Control and Risk Assessment Unit			
D.1.6: Preparation (materials, target groups, etc)			
D.1.7: Organisation of a study trip			
D.1.8: Preparation and implementation of a training programme			
D.2.1: Preparation and implementation of a seminar			