

**Advancing Mediterranean Forest  
Research Capacities  
AGORA**

**FP7-REGPOT-2009-2**

**GRANT AGREEMENT No 245482**

**Deliverable D 1.2  
Project Final Report**

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# PROJECT FINAL REPORT

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# 1. Final publishable summary report

## 1.1 Executive summary

Ensuring the sustainable provision of forest goods and services in Mediterranean Partner Countries (MPCs) like Morocco and Tunisia requires both, to advance the current knowledge, and to better use it through dissemination and development. This in turn implies a sufficient research capacity. However, forest research in MPCs has been traditionally handicapped by its fragmentation, its limited means, and occasional outdated and isolation. Therefore, new ways to overcome this situation have to be implemented through research partnerships, networking, capacity building, and knowledge transfer.

In that context, AGORA has developed new research capacities on the sustainable management of forests in Morocco and Tunisia through scientific cooperation, networking and targeted capacity building taking advantage of the existing knowledge in forest research institutions from Portugal (ISA), Spain (EFIMED), France (INRA), Italy (University of Padova) and Turkey (Black Sea University).

The development of new research capacities in Morocco and Tunisia has taking place in two forest research organizations: ENFI in Morocco and INRGREF in Tunisia. AGORA, with almost 1 M€ of budget, has allowed 54 research mobilities, 6 scientific workshops, 1 joint winter school, 1 seminar, 1 stakeholder workshop and a final dissemination conference. AGORA has acquired new equipment for ENFI and INRGREF valued in 60.000 Euros. Finally, 16 new recruitments to reinforce INRGREF and ENFI research capacities have been implemented.

AGORA has put emphasis in ensuring that relevant stakeholders in Tunisia, Morocco and beyond have been able to interact with AGORA scientists to realise future benefits and provide relevant information regarding their needs and challenges.

The new scientific capacities developed by AGORA will support policymaking and forest management in the face of rapidly changing climatic and land-use conditions in the Mediterranean area. An AGORA Policy brief summarises recommendations to further improved forest research strategies in Tunisia and Morocco.

Two new EU funded projects have been possible thanks to the AGORA partnership:

- An ERA-Net scheme FORESTERRA, dealing with the improved integration of forest research programmes in the Mediterranean region.
- An Erasmus Mundus Masters programme dealing with forest and natural resources management in the Mediterranean region.

These two initiatives will ensure the sustainable dissemination and impact of AGORA activities and the continuation and development of the foundation established by AGORA.

## 2.1 Summary description of project context and objectives

### Project context

Mediterranean forests and woodlands, which cover 73 Mha, or about 9 %, of the Mediterranean region's land area require special attention because:

- They play a key role in the welfare of urban and rural Mediterranean communities, by providing highly appreciated marketed goods (e.g., timber, firewood, cork, pine kernels, mushrooms, medicinal plants, etc) as well as high value but non-market services (e.g., landscape quality, fodder, soil protection, water regulation, recreation possibilities, micro-climate amelioration, etc.).
- They constitute a unique world natural heritage in terms of biological diversity, hosting around 25.000 species of vascular plants, (50% are endemic species) and a high degree of tree richness and endemism (290 indigenous tree species with 201 endemics) with extraordinary genetic diversity.
- Their conservation and management affects the soil and water resources, both being key strategic resources for Mediterranean societies (Blue Plan 2008).
- Their future is seriously threatened by climate and land use changes, which add to long-lasting problems related to forest fires, forest over-exploitation and the advance of desertification in the region. Mediterranean forests are among the most vulnerable ecosystems in the world (deforestation occurs at a rate of around 1.1%, higher than in tropical countries).

In the non-European Mediterranean countries, the so called Mediterranean Partner Countries (MPCs), the rapid population growth (around 2% as an average), the low income per capita, the marked rural density and the limited diversification of rural activities make forests and the goods they generate (timber, firewood, fodder, aromatic and medicinal plants, etc) relevant primary resources for the subsistence of the local communities. In addition, forest environmental functions (stopping desertification, soil protection, regulating water resources, micro-climate amelioration, etc) are crucial for the sustainable development of these countries. However, the impacts of climate change (mean temperature, duration of drought periods and frequency of hot days are increasing, while rainfall is being reduced and as result forest ecosystems are more vulnerable to forest fires and pathogenic attacks), the over-exploitation of forests to meet an increasing demand for wood, and the conversion of forests to other land uses to meet the demand for food (land for agriculture and pastures), is putting at risk the sustainability of forest ecosystems and the crucial goods and services they provide.

This situation calls for a coordinated approach throughout the Mediterranean basin to develop reliable information and tools based on sound science, in order to improve forest management and policy-making. The sustainable management of Mediterranean forests should consider the three dimensions: environmental, economic, and social as well as their spatial and temporal evolutions related to land-use and climate changes. This raises three main scientific challenges:

- Understanding how climate change will impact forest tree species adaptation and forest ecosystems functioning;
- Developing new ways of governance, policies and economic instruments to ensure the sustainable provision of relevant forest goods and services;
- Developing innovative and participatory forestry decision tools for optimizing and adapting multifunctional and multi-scale forest management under climate and land-use changes.

Meeting such complex challenges in MPCs requires both, to advance the current knowledge, and to better use it through dissemination and development. This in turn implies a sufficient research capacity. However, forest research in MPCs has been traditionally handicapped by its fragmentation, its limited means, and occasional outdated and isolation. Therefore, new ways to overcome this situation have to be implemented through research partnerships, networking, capacity building, and knowledge transfer.

AGORA dealt with the challenges stated above by advancing scientific knowledge on the sustainable management of forests in the MPCs through scientific cooperation, networking and targeted capacity building that uses efficiently the existing multidisciplinary knowledge and resources, which are available in different European forest research institutions of the Mediterranean region. Coordinated forest research partnerships between “*centres of excellence*” located in the EU, a convergence region (in Turkey) and MPCs entities with the highest research potential will be developed. This has been achieved by improving scientific relationships, networking and exchanging of know-how and experience as well as by upgrading the human and technological research capacities of the MPCs forest research entities. In addition, the forest scientific strategies of the MPCs research entities are being adjusted based on the upgraded capacities.

## Objectives

The ultimate objective of the AGORA supporting action was to improve existing and develop new forest Research, Technology and Development (RTD) capacities in key strategic scientific areas in the selected MPCs entities. The new scientific capacities will support policymaking and forest management in the face of rapidly changing climatic and land-use conditions in the Mediterranean area.

The supporting action had therefore the following specific objectives:

1. to implement an international coordinated twinning action plan to exchange know-how and experience between selected forest research “*centres of excellence*” in EU’s Member States, a convergence region and selected entities from MPCs covering three strategic scientific topics. These topics have been selected on the basis of their intrinsic scientific importance, but also of their significance for policy decision-making:
  - *Understanding the role of genetic diversity in the adaptive response of forest tree species;*

- *Valuing forest goods and services, designing financing mechanisms and income generation strategies to ensure their sustainable provision;*
  - *Developing participatory tools for optimizing and adapting forest management in a context of multiple-use-landscapes and changes in land-use and climate.*
2. to reinforce the human potential of the MPCs forest research entities in the scientific topics stated above through new recruitments, mobility measures and targeted international workshops.
  3. to acquire, renew and upgrade the scientific and technological research equipment of the selected MPCs research entities in relation to the scientific topics stated above.
  4. to adjust the forest research strategies of the selected MPCs research entities.
  5. to organise appropriate dissemination (web, brochures, conferences, individual visits, etc) and promotional activities (interaction with different stakeholder groups, etc) to enhance locally and internationally the improved research potential of the selected MPCs forest research entities.

### **3.1 Description of the main S&T results/foregrounds**

AGORA project was organised in three scientific work packages with different capacity building tasks:

*WP2: Understanding the role of genetic diversity in the adaptive response of forest tree species;*

Task 2.1 Ecophysiological measures at stand level

Task 2.2 Variability of ecophysiological traits at individual tree level

Task 2.3 Emerging methodologies to infer the genetic basis of adaptive traits in situ

*WP3: Valuing forest goods and services, designing financing mechanisms and income generation strategies to ensure their sustainable provision;*

Task 3.1 Economic evaluation of forest good and services

Task 3.2 Advanced marketing techniques related to forest products and services

Task 3.3 Payments for environmental services (PES)

*WP4: Developing participatory tools for optimizing and adapting forest management in a context of multiple-use-landscapes and changes in land-use and climate.*

Task 4.1 Forest inventory and modelling

Task 4.2 Advanced methods for participatory and adaptive forest management

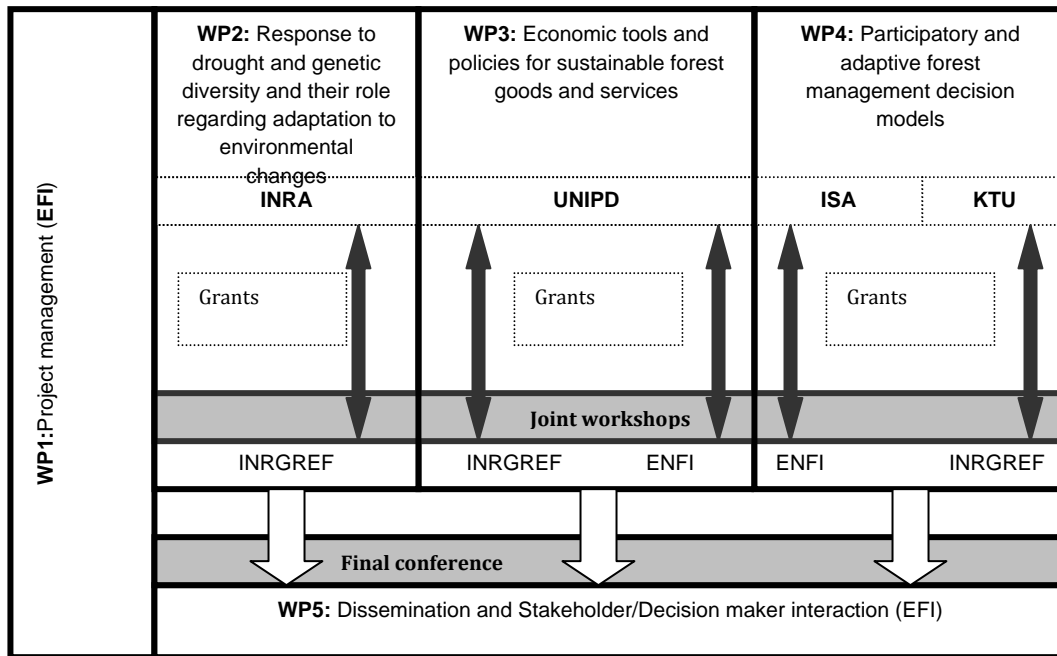
Task 4.3 Decision support systems for forest management planning

The overall AGORA strategy focused towards the advancing of forest research capacities in two selected MPCs entities (INRGREF and ENFI). The plan was to target different research units within

the selected MPCs entities through the following twining measures (see Fig. 1.1) (see results in the below WPs descriptions):

- **Scientific mobilities** of senior and young research staff from the MPCs entities to the European and convergence region partners (from several weeks to several months).
- New **recruitments** by the MPCs entities of new researchers to reinforce the research capacities of INRGREF and ENFI on the AGORA scientific priorities.
- Acquisition of relevant research **equipment** for the selected MPCs entities.
- **International workshops** addressing AGORA’s research topics.

In addition, **dissemination activities especially to ensure interaction with relevant decision makers and stakeholders were implemented.** This was crucial for the future development and implementation of the know-how and capacities acquired by the MPCs entities and for adjusting the forest research strategies of the MPCs research entities.



**Figure 1.1** Interdependencies within and among WPs through the different measures.  $\longleftrightarrow$  = feedback loop within WP knowledge providers and beneficiaries;  $\downarrow$  = flow of information from scientific WPs to the Dissemination WP.

The following Table 1 summarizes the main capacity building activities and results achieved during the duration of the Project.



Type of instrument	Number	Total participants
Mobility measures	54	46
Scientific workshops	6	199 (25 countries)
Stakeholders workshops	1	44 (4 countries)
Dissemination conference	1	71 (12 countries)
Recruitments	16	16
Dissemination material	Project Website 19 press releases 16 articles AGORA Policy brief	
New equipment	Acquisition as planned of: (1) equipment by INRGREF for ecophysiology and genetic analyses under WP2; (2) books and IT equipment by ENFI and INRGREF under WP3 and WP4.	

**Table 1.** Summary table of main AGORA results for different instruments

Below, a description on the main scientific results of AGORA by the three relevant WPs.

<b>Work Package number</b>	2	<b>Start date or starting event:</b>	Month 1
<b>Work Package title:</b> Response to drought and genetic diversity and their role regarding adaptation to environmental changes			
<b>Activity Type:</b> SUPP			
<b>Participant number</b>	2	7	
<b>Person-months for the project</b>	5	26	
<p>The objectives of the WP2 have been:</p> <p>(1) reinforce the capacity of Tunisian colleagues at INRGREF by acquiring equipment and expertise necessary to implement the in situ approaches in the fields of research; and</p> <p>(2) contribute to develop the sense of interdisciplinarity between geneticists and ecophysiologicals, in particular for the young generation of researchers.</p> <p>INRA and INRGREF have been able to implement a successful twining action plan resulting in reinforced and enlarged INRGREF's research capacities regarding two main topics:</p> <ul style="list-style-type: none"> <li>• Ecophysiological parameters at various scales, from individual tree to the stand level, which could be used both for monitoring Mediterranean forest ecosystems in situ and assess the adaptive diversity of forest genetic resources in existing networks of provenance trials (Tasks 2.2 and partly 2.1).</li> </ul>			

- Emerging approaches based on genetic markers to study the genetic diversity and its organisation in situ (Task 2.3).

In order to reach these objectives different activities were implemented in the second period: acquisition of specialised equipment, new recruitments, short and long term visits and targeted scientific training workshops. While reinforcing the global methodological expertise of the Tunisian scientists in genetic data analysis and ecophysiological measures on various study cases, there was also experimental training through field work on pine and oak forest ecosystems.

**The main results over the course of the project have been:**

- 16 mobilities for scientists from INRGREF and ENFI to visit INRA, plus 7 mobilities for INRA scientists visiting INRGREF and ENFI were also granted to improve the research capacities in the scientific topics relevant for the WP.
- New equipment for genetic analysis was acquired by INRGREF and training was provided by INRA on the use of the new equipment.
- An international scientific workshop organised in Hammamet, Tunisia, October 2010, which dealt with the three Tasks described below (involving 7 speakers and 17 young scientists participants).
- Several training on field experiments organised for the visiting scientists to INRA.
- Two (2) recruitments of young scientists for INRGREF to reinforce forest genetics on the three research topics below took place in Period 1, consolidated in Period 2, plus 4 PhD students in Period 2.
- One-week seminar for ENFI students under Task 2.2.

**Details for each task:**

**Task 2.1 Ecophysiological measures at stand level**

The main work done in this task has been in transferring know-how and finalizing the purchasing and training of related equipments needed to measure transpiration rate, sap-flow and LAI, based on hemispheric pictures at different levels, in natural or planted forests, which was lacking at INRGREF.

Young and senior scientists from INRGREF have been trained in the methods and techniques used in a research project conducted at INRA on the adaptation of mixed pine-oak forests to drought stress, where these parameters are monitored along seasons. All methodologies, equipment and know-how needed to evaluate each of these parameters and traits have been transferred to Tunisia, through the mobilities to INRA and from INRA staff to INRGREF.

Task coordinator: Drs R. Huc (INRA) and N. Zouhaier (INRGREF) and G. Simioni (INRA).

**Task 2.2 Variability of ecophysiological traits at individual tree level**

The work of this task has targeted the transfer of know-how and related equipment on

ecophysiological tools and methods at individual tree level (hydraulic properties, conductivity, vulnerability, as well as the water status) in order to approach the genetic variability of these traits that are key parameters of the functioning of the stand.

INRA scientists travelled to ENFI and INRGREF to deliver scientific seminars and provide training in field experiments. Task coordinator: Drs B. Fady (INRA), A. Khaldi (INRGREF) and R. Huc (INRA)

Task coordinator: Drs B. Fady (INRA), A. Khaldi (INRGREF) and R. Huc (INRA)

**Task 2.3 Emerging methodologies to infer the genetic basis of adaptive traits in situ**

The work of this task has aimed at transferring knowledge on new emerging approaches, based on molecular tools and specific statistical analysis, to infer the genetic basis of quantitative traits from natural populations. These innovative approaches have been recently developed and they are complementary to the classical progeny test design used in forestry.

Task coordinator: Drs F. Lefèvre (INRA) and A. Khaldi (INRGREF)

The following new equipment was acquired by INRGREF to reinforce the research capacities dealing with Tasks 2.1 and 2.3:

- Xy'lem, measuring hydraulic conductivity and xylem emboly
- Meteorological station, collecting climate data in the forest
- Pressure chamber, measuring sap pressure
- Data logger, collecting sap flow data
- Leaf area meter, measuring leaf area of collected samples
- Fluorescent meter, masuring activitiy of photosystem II
- Refractometer, measuring degree brix
- Vacuum pump, Xy'lem accesory
- Laboratory refrigerator, conservation for collected samples and seed conservation
- Water distillation machine, Xy'lem accesory
- Gaz pressure accessories, masuring cavitation of xylem
- Drier chamber, measuring dry mass of leaves and stems
- Laptop, data processing

<b>Work Package number</b>	3		<b>Start date or starting event:</b>				Month 1	
<b>Work Package title:</b> Economic tools and policies for sustainable forest goods and services								
<b>Activity Type:</b> SUPP								
<b>Participant number</b>	3	6	7	1				
<b>Person-months for the project</b>	6	26	26	1				

This WP has built new research capacities and has transferred scientific knowledge to ENFI and INRGREF in the following 3 research topics: Economic evaluation of forest good and services (Task 3.1)

- Advanced marketing techniques related to forest products and services (Task 3.2)
- Payments for environmental services (Task 3.3)

**The main results over the course of the project have been:**

- Three scientific workshops dealing with Tasks 3.1-3.3:
  - Economic evaluation of forest good and services (Hammamet, Tunisia, October 2010)
  - Marketing and payment of forest products and services (Fez, Morocco, September 2011)
  - Payments for environmental services (Marrakech, Morocco, April 2013)
- 11 scientific mobilities from INRGREF (8) and ENFI (3) were implemented at University of Padova and EFIMED to receive training in marketing techniques and/or payments for environmental services, Tasks 3.1, 3.2, 3.3.
- 1 recruitment at INRGREF in Period 2 and 1 recruitment at ENFI in Period 1 and 2, under Tasks 3.2 and 3.3. Equipment to support economic research was acquired by INRGREF and ENFI (books, laptops and desktops).

**Details for each task:**

**Task 3.1 Economic evaluation of forest good and services**

The work related to this task has focussed on transferring know-how and related instruments from University of Padova and EFIMED to INRGREF and ENFI needed to make financial and economic evaluation of forest investments, with special focus on Cost-Benefit Analysis (CBA) and the valuation of non-market forest goods and services.

An international workshop was organised in Hammamet (Tunisia, October 2010) to train young scientists (11 participants) from INRGREF and ENFI on new forest valuation methods and their application in the context of financial and cost-benefit analysis. In addition one scientific visit from INRGREF was made to the University of Padova in order to deepen in forest evaluation methods.

Task coordinator: Robert Mavsar (EFI); other supervisors: Hamed Daly-Hassen (INRGREF) and

Davide Pettenella (UNIPD).

**Task 3.2 Advanced marketing techniques related to forest products and services**

The work of this Task has aimed at transferring know-how and related instruments needed to INRGREF and ENFI to apply advanced techniques and software of market analysis and marketing of socially and environmentally responsible products and services associated to the Mediterranean forest environment.

The work related to this Task has being implemented through the organization of an International Workshop organised in September 2011 in Fez (Morocco).

Task coordinator: Davide Pettenella (UNIDP); other supervisors: Abdellatif Khattabi (ENFI), Hamed Daly-Hassen (INRGREF) and Laura Secco (UNIPD)

**Task 3.3 Payment for environmental services**

The work has concentrated in transferring know-how and related equipments from University of Padova to INRGREF and ENFI needed to apply systems for payments of non-market environmental services.

The work related to this Task has being implemented by the organization of two International Workshops:

- Workshop organised in September 2011 in Fez (Morocco) together with Task 3.2.
- Workshop organized in Marrakech (Morroco) in April 2013 focusing on marketing forest products and services and experiences on payment for environmental services.

Seven mobilities have taken place within this task to specialise Tunisian and Moroccan scientists in this emerging topic.

The equipment acquired for INRGREF and ENFI consist of books, laptops and desktops.

Task coordinator: Paola Gatto (UNIDP); other supervisors: Abdellatif Khattabi (ENFI) and Laura Secco (UNIPD)

<b>Work Package number</b>	4	<b>Start date or starting event:</b>					Month 1
<b>Work Package title:</b> Participatory and adaptive forest management decision models							
<b>Activity Type:</b> SUPP							
<b>Participant number</b>	4	5	6	7			
<b>Person-months for the project</b>	6	5	26	3			

This Work Package has transferred new knowledge from ISA and KTU to INRGREF and ENFI in order to address emerging natural resources management planning problems in the Mediterranean region. The core activities have addressed the following tasks:

- Inventory and modelling (Task 4.1)
- Advanced methods for participatory and adaptive forest management (Task 4.2)
- Decision support systems for forest management planning (Task 4.3)

**The main results over the course of the project have been:**

- Two International scientific workshop held in Hammamet (Tunisia, October 2010) and Fez (Morocco, December 2011) dealing with Tasks 4.1 and 4.2 respectively.
- A joint Winter School dealing with Tasks 4.1-4.3 have been jointly organised with the MEDFOR Programme (An Erasmus Master dealing with Mediterranean forestry) in Palencia (Spain, February 2013).
- 27 mobilities under the scientific Tasks 4.1, 4.2 and 4.3.
- New equipment to support research on natural resources management (books, software and computers).
- ENFI recruited 4 assistant professors at ENFI and 3 forest engineers.

**Details for each task:**

**Task 4.1 Forest inventory and modelling**

The work of this Task has aimed to transfer know-how and instruments from ISA to INRGREF and ENFI needed to conduct a multi-resource forest inventory and to develop models to estimate growth and yield of multiple forest products.

A joint Winter School with the MEDFOR Master Programme was organised in Palencia (February 2013), Spain on 'Mediterranean Forestry: the asymmetric impact of Global Change on the Mediterranean Forests'. The winter school addressed Task 4.1 and 4.3. ISA co-organised the winter school and four students from ENFI and one Professor participated as participants.

Task coordinator: Margarida Tomé, Manuela Branco, Ane Zubizarreta-Gerendiain, José Tomé and Paula Soares (ISA), Mustapha Ezzahiri (ENFI), Dr. Tahar Sghaier (INRGREF).

**Task 4.2 Advanced methods for participatory and adaptive forest management**

This Task has focussed in transferring know-how and instruments needed to apply advanced methods for participatory and adaptive forest management (multiple criteria and multiple attribute techniques, risk analysis and participation).

An International scientific workshop was held in Fez (Morocco, December 2011) to provide new

knowledge regarding advanced methods for participatory and adaptive forest management. Namely it presented and transferred multiple criteria approaches to forest management planning.

Task coordinator: José G Borges (ISA); other supervisors: Emin Baskent (KTU), Jordi Garcia (ISA), Fouad Mounir (ENFI), Ertugrul Bilgili (KTU)

#### **Task 4.3 Decision support systems for forest management planning.**

This Task aimed to transfer know-how and instruments needed to apply decision support systems in forest management planning (databases, geographical information systems, simulators, management science software)

The International scientific workshop held in Fez (Morocco, December 2011) and the joint Winter School organised with MEDFOR in Palencia (Spain, February 2013) included research training on decision support systems.

The main work related to this Task has aimed at preparing the International scientific workshop held in Fez, Morocco (5-7/12/2011), the joint winter school organised with MEDFOR in Palencia (Spain) and the preparation of work plans for targeted mobility grants.

Task coordinator: Emin Baskent (KTU); other supervisors: José Borges (ISA), Alihsan Kadiogullari (KTU) for databases and GIS, Jordi Garcia-Gonzalo (ISA), Fouad Mounir (ENFI).

### **4.1 Potential impact and the main dissemination activities and exploitation of results**

#### **Impact at scientific level**

AGORA has contributed to adjusting and modernizing the research strategies of ENFI and INRGREF by updating and enlarging the scientific goals, research agendas and related areas and programs, based on the capacities developed in: (i) forest genetics and environmental changes; (ii) forest policy and economics and (iii) forest management decision models. AGORA Policy brief sets out the basis for such improvement but in particular the new recruitments will support the implementation of new research strategies.

AGORA should be seen as a strategic milestone in Mediterranean forest research, as it will contribute to the realisation of the **FP7's international dimension**, by promoting scientific and technological cooperation in the field of *sustainable production and management of forest environments* (FP7 thematic area of food, agriculture and biotechnology) and understanding and adapting forest ecosystems under climate change (FP7 thematic area of environment). In addition, the supporting action will allow forest research entities of MPCs to establish contacts with counterparts in the European Research Area in order to improve their future participation in the RTD Framework Programme. This is clearly reflected by the fact that AGORA has triggered a new

ERA-Net (FORESTERRA) dealing with “**Enhancing forest research in the Mediterranean through improved integration and coordination**” as well as a new Erasmus Mundus Master Programme (MEDFOR) dealing with Mediterranean forest and natural resources management.

AGORA has set up a sustainable international partnership between the most competitive forestry RTD centres of Mediterranean Member States (France, Italy, Spain and Portugal), an EU convergence country (Turkey) and two Mediterranean Partner Countries (Tunisia and Morocco) in the frame of the European Research Area. Such partnership is already having an impact by expanding the network via the specific ERA-Net on Mediterranean Forest research: FORESTERRA.

Improving and enlarging the RTD capacity of two MPCs forest research entities of excellence (ENFI and INRGREF) and specializing them in three key research areas for the sustainable management of forests has been a key activity within the **Mediterranean Forest Research Agenda** (MFRA). AGORA addresses three of the four key priorities of the MFRA through capacity building activities.

The scientific capacities built by AGORA in Tunisia and Morocco support the implementation of the recommendations of the international workshop on climate change and forests, organized in 2005 in Paris concurrently by **EUFORGEN** and **IUFRO** (International Union of Forest Research Organizations) in collaboration with the **MCPFE** liaison unit (Warsaw), where it was clearly stated that safeguarding and using genetic diversity of keystone forest ecosystem species should be a priority on policy makers agendas to mitigate the effects of climate change.

AGORA also deals with some of the challenges defined in the Warsaw Declaration on the occasion of the Fifth Ministerial Conference on the Protection of Forests in Europe (Warsaw Declaration, 2007; [http://5th.mcpfe.org/file/Warsaw\\_Declaration.pdf](http://5th.mcpfe.org/file/Warsaw_Declaration.pdf)), for example “item 26; “Promote research, especially on the role of forests in climate change mitigation, adaptation of forests to climate change as well as the use of wood and biomass, the relationship between forest and water and functioning of forest ecosystems.”

### **Socio-economic and environmental implications**

The new research capacities build by AGORA in Morocco and Tunisia will gradually support the steady development towards a **knowledge-based bio-economy** in the two countries, contributing to the UN Millennium Development Goals (<http://www.undp.org/mdg/>) of eradicating extreme poverty and hunger and to ensure environmental sustainability. The long-term impacts of the project (new knowledge and human resources) will as well support the implementation of relevant strategies and more efficient policies in the framework of the Mediterranean Action Plan of the United Nations Environment Programme (<http://www.unepmap.org/>) and the Barcelona Process: Union for the Mediterranean ([http://ec.europa.eu/external\\_relations/euromed/index\\_en.htm](http://ec.europa.eu/external_relations/euromed/index_en.htm)).

Policy makers at Mediterranean, national and regional level are ultimate beneficiaries of AGORA results, because the project has facilitated the development of excellent research entities that will be able to support them in developing and implementing future policies for managing and conserving forest goods and services in the context of climate change.



AGORA has provided increased visibility and credibility of forest scientists to policy makers involved in Forestry in Morocco and Tunisia, which will ensure their future collaboration in jointly addressing forest-related challenges and implementing rural development policies.

More specifically, AGORA will contribute to the realization of Tunisian and Moroccan rural development and forest policies aiming at developing the forest sector and ensuring a sustainable management of forest resources with the aim of alleviating poverty in rural areas, preserving key strategic resources like soil and water while combating desertification, and providing renewable energy sources. This process has started during the AGORA stakeholders workshop, where such national policies were discussed and policy makers asked AGORA to develop specific capacities at ENFI and INRGREF to address emerging knowledge gaps in forestry.

### **Main dissemination activities**

The main AGORA dissemination activities have included:

- The development of the AGORA project website which is available through the projects page of the European Forest Institute Mediterranean Regional Office website at the following address: [www.efimed.efi.int/portal/agora](http://www.efimed.efi.int/portal/agora).
- One stakeholder workshop (June 2010, Morocco) to disseminate and receive feedback from policy makers and managers from Morocco and Tunisia regarding AGORA research activities and stakeholders needs.
- One International Dissemination conference (June 2012, Tunisia) presenting the research capacities build within AGORA and its possible impact and use by relevant stakeholders.
- A Policy brief summarizing AGORA results and providing recommendations to policy makers regarding future research strategies.
- Annual presentations at the Mediterranean Forest Week and EFIMED annual meetings consisting of more than 100 scientists, stakeholders and policy makers.
- In addition, a set of articles and materials include articles in EFI and EFIMED network news, features in EC online magazines and the AGORA project brochure [http://www.efimed.efi.int/files/attachments/efimed/agora/brouchure-en\\_final.pdf](http://www.efimed.efi.int/files/attachments/efimed/agora/brouchure-en_final.pdf).

## **2. Use and dissemination of foreground**

The main result of AGORA has been in reinforcing and developing new research capacities in Tunisia and Morocco. This has been done by upgrading the knowledge and skills of research staff in ENFI and INRGREF as well as by recruiting new staff to develop AGORA research tasks in the future. The new recruited staff and the staff benefiting from the transfer of knowledge will guarantee the dissemination of the AGORA results and will ensure that AGORA will have an impact in the two

countries. In addition, the intense communication with stakeholders, policy makers and managers in Tunisia and Morocco will now continue beyond the duration of the project in order to support the design and implementation of relevant forest policies (see above) in the two countries.

Two new EU funded projects have been possible thanks to the AGORA partnership:

- An ERA-Net scheme FORESTERRA, dealing with the improved integration of forest research programmes in the Mediterranean region.
- An Erasmus Mundus Master programme dealing with forest and natural resources management in the Mediterranean region.

These two initiatives will ensure the sustainable dissemination and impact of AGORA activities and the continuation and development of the foundation established by AGORA.

In terms of project cooperation, the fruitful relationship with FOPER (capacity building on forest policy and economics in the Balkans) and GIZ (German cooperation agency) funded project on Adapting forest policies in the MENA region to climate change, should be emphasised. Participants from these projects have participated in AGORA workshops in order to gain knowledge on the latest scientific findings and methods as well as on emerging forest management challenges in the region and beyond. AGORA beneficiaries will continue cooperation with these two initiatives, especially with the MENA project, where they can contribute directly based on new knowledge acquired.

Table 2 lists the dissemination activities carried out over the course of the project.

Table 2: List of dissemination activities

LIST OF DISSEMINATION ACTIVITIES								
NO.	Type of activities	Main leader	Title	Date/Period	Place	Type of audience	Size of audience	Countries addressed
1	Project website	EFI	<i>AGORA project website</i>	From March 2010	www.efimed.efi.int/portal/agora	Scientific Community, civil society, policy makers	6000+ visitors per year	Mediterranean Basin countries
2	Brochure	EFI	<i>AGORA Project brochure</i>	April 2010	Europe-wide distribution	Scientific Community, civil society, policy makers	1000 copies produced	Mediterranean Basin countries
3	Article	EFI	<i>Advancing Mediterranean Forest research Capacities - AGORA</i>	February 2010	EFIMED Network News	Scientific Community, civil society, policy makers	1000+ mailing list	Morocco, Tunisia
4	Article	EFI	<i>AGORA kick-off meeting</i>	March 2010	EFIMED Network News	Scientific Community, civil society, policy makers	1000+ mailing list	Morocco, Tunisia
5	Article	EFI	<i>AGORA gathered 70 young scientific talents from 11 Mediterranean countries</i>	June 2010	EFIMED Network News	Scientific Community, civil society, policy makers	1000+ mailing list	Mediterranean Basin countries
6	Article	EFI	<i>AGORA builds capacities in forestry in Morocco and Tunisia</i>	June 2010	European Forest Institute, June 2010, Vol 18, No. 1-2, p.24	Scientific Community, civil society, policy makers	3000 copies produced, 2000+ mailing list	Tunisia, Morocco, France, Turkey, Italy, Spain, Portugal
7	Article	EFI	<i>AGORA:</i>	September	EFIMED Network News	Scientific	1000+	Morocco, Tunisia

			<i>decision-makers and stakeholders from North Africa met over the scientific challenges and needs of Mediterranean forests</i>	2010		Community, civil society, policy makers	mailing list	
8	Article	EFI	<i>AGORA workshop focused at adapting Mediterranean forests to climate change</i>	November 2010	European Forest Institute, November 2010, Vol.18, No.3, p.23	Scientific Community, civil society, policy makers	3000 copies produced, 2000+ mailing list	Tunisia, Morocco, France, Turkey, Italy, Spain, Portugal
9	Article	EFI	<i>AGORA recruitments in Morocco and Tunisia</i>	May 2011	EFIMED Network News	Scientific Community, civil society, policy makers	1000+ mailing list	Morocco, Tunisia
10	Article	EFI	<i>AGORA project developments</i>	May 2011	EFIMED Network News	Scientific Community, civil society, policy makers	1000+ mailing list	Tunisia, Morocco, France, Turkey, Italy, Spain, Portugal
11	Article	EFI	<i>New marketing techniques and Payments for Environmental Services are discussed in Fez</i>	September 2011	EFIMED Network News	Scientific Community, civil society, policy makers	1000+ mailing list	Morocco
12	Article	EFI	<i>AGORA project reaching mid-term</i>	November 2011	European Forest Institute, Nov 2011, Vol. 19, No.3, p.14	Scientific Community, civil society, policy makers	3000 copies produced, 2000+ mailing list	Tunisia, Morocco, France, Turkey, Italy, Spain, Portugal
13	Article	EFI	<i>Consolidating adaptive forest management knowledge in Fez</i>	December 2011	EFIMED Network News	Scientific Community, civil society, policy makers	1000+ mailing list	Morocco
14	Article	EFI	<i>AGORA: a case to follow!</i>	April 2012	European Forest Institute, April 2012, Vol. 20, No.1, p.16	Scientific Community, civil society, policy	3000 copies produced, 2000+	Tunisia, Morocco, France, Turkey,

						makers	mailing list	Italy, Spain, Portugal
15	Article	EFI	<i>AGORA selected as a reference project</i>	May 2012	EFIMED Network News	Scientific Community, civil society, policy makers	1000+ mailing list	Mediterranean Basin countries
16	Article	EFI	<i>AGORA Final Conference: strengthened partnerships for future collaboration</i>	June 2012	EFIMED Network News	Scientific Community, civil society, policy makers	1000+ mailing list	Mediterranean Basin countries
17	Article	EFI	<i>AGORA making the difference</i>	September 2012	EFIMED Network News	Scientific Community, civil society, policy makers	1000+ mailing list	Tunisia, Morocco, France, Turkey, Italy, Spain, Portugal
18	Article	EFI	<i>AGORA – a new leaf in Euro-Med forest research</i>	March 2013	EFIMED Network News	Scientific Community, civil society, policy makers	1000+ mailing list	Tunisia, Morocco, France, Turkey, Italy, Spain, Portugal
19	Policy Brief	EFI	<i>Policy Brief- AGORA Making the Difference: Towards a Mediterranean Forest Research Area</i>	September 2012	Europe-wide distribution	Scientific Community, civil society, policy makers	500 copies produced, 1000+ mailing list	Mediterranean Basin countries
20	Workshop	INRA	<i>Adapting Mediterranean forests to climate change</i>	September 2010	Hammamet, Tunisia	Scientific Community, policy makers	24	Tunisia, Morocco
21	Workshop	UNIPD	<i>Adapting Mediterranean forests to climate change</i>	September 2010	Hammamet, Tunisia	Scientific Community, policy makers	22	Tunisia, Morocco
22	Workshop	ISA	<i>Adapting Mediterranean</i>	September 2010	Hammamet, Tunisia	Scientific Community, policy	32	Tunisia, Morocco

			<i>forests to climate change</i>			makers		
23	Workshop	UNIPD	<i>New economic approaches in forest goods and services marketing</i>	September 2011	Fez, Morocco	Scientific Community, policy makers	34	Tunisia, Morocco,
24	Workshop	ISA	<i>Methods and tools for participatory and adaptive forest management</i>	December 2011	Fez, Morocco	Scientific Community, policy makers	40	Tunisia, Morocco,
25	Workshop	UNIPD	<i>Payments for environmental services</i>	April 2013	Marrakech, Morocco	Scientific Community, policy makers	47	Tunisia, Morocco,
26	Workshop	ISA	<i>AGORA-MEDFOR joint Winter School</i>	January 2013	Palencia, Spain	Scientific Community, policy makers	35	Mediterranean Basin countries
27	Workshop	EFI	<i>Stakeholders and Decision Makers workshop</i>	June 2010	Salé, Morocco	Policy makers	44	Tunisia, Morocco,
28	Conference	EFI, INRGREF	<i>AGORA Final Conference</i>	June 2012	Tunis, Tunisia	Scientific Community, civil society, Industry, Media, policy makers	71	Mediterranean Basin countries
29	Presentation	EFI	<i>AGORA project: results and lessons learnt</i>	June 2013	EFI	Scientific Community	20	Tunisia, Morocco, France, Turkey, Italy, Spain, Portugal

### 3. Report on societal implications

<b>A General Information</b>	
Grant Agreement Number:	245482
Title of Project:	Advancing Mediterranean Forest Research Capacities AGORA
Name and Title of Coordinator:	Marc Palahí, EFI Deputy Director
<b>B Ethics</b>	
<p><b>1. Did your project undergo an Ethics Review (and/or Screening)?</b></p> <ul style="list-style-type: none"> <li>If Yes: have you described the progress of compliance with the relevant Ethics Review/Screening Requirements in the frame of the periodic/final project reports?</li> </ul> <p>Special Reminder: the progress of compliance with the Ethics Review/Screening Requirements should be described in the Period/Final Project Reports under the Section 3.2.2 'Work Progress and Achievements'</p>	No
<p><b>2. Please indicate whether your project involved any of the following issues (tick box) :</b></p>	
<b>RESEARCH ON HUMANS</b>	
• Did the project involve children?	-
• Did the project involve patients?	-
• Did the project involve persons not able to give consent?	-
• Did the project involve adult healthy volunteers?	-
• Did the project involve Human genetic material?	-
• Did the project involve Human biological samples?	-
• Did the project involve Human data collection?	-
<b>RESEARCH ON HUMAN EMBRYO/FOETUS</b>	
• Did the project involve Human Embryos?	-
• Did the project involve Human Foetal Tissue / Cells?	-
• Did the project involve Human Embryonic Stem Cells (hESCs)?	-
• Did the project on human Embryonic Stem Cells involve cells in culture?	-
• Did the project on human Embryonic Stem Cells involve the derivation of cells from Embryos?	-
<b>PRIVACY</b>	
• Did the project involve processing of genetic information or personal data (eg. health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)?	-
• Did the project involve tracking the location or observation of people?	-
<b>RESEARCH ON ANIMALS</b>	
• Did the project involve research on animals?	-
• Were those animals transgenic small laboratory animals?	-
• Were those animals transgenic farm animals?	-
• Were those animals cloned farm animals?	-
• Were those animals non-human primates?	-
<b>RESEARCH INVOLVING DEVELOPING COUNTRIES</b>	
• Did the project involve the use of local resources (genetic, animal, plant etc)?	-
• Was the project of benefit to local community (capacity building, access to healthcare, education	yes

etc)?	
<b>DUAL USE</b>	
• Research having direct military use	-
• Research having the potential for terrorist abuse	-

### **C Workforce Statistics**

**3. Workforce statistics for the project: Please indicate in the table below the number of people who worked on the project (on a headcount basis).**

<b>Type of Position</b>	<b>Number of Women</b>	<b>Number of Men</b>
Scientific Coordinator	0	1
Work package leaders	0	4
Experienced researchers (i.e. PhD holders)	0	3
PhD Students	1	0
Other, administrative personnel	5	0

**4. How many additional researchers (in companies and universities) were recruited specifically for this project?** **16**

Of which, indicate the number of men: 14



D Gender Aspects		
<b>5. Did you carry out specific Gender Equality Actions under the project?</b>	<input type="radio"/> x	Yes No
<b>6. Which of the following actions did you carry out and how effective were they?</b>		
	Not at all effective	Very effective
<input type="checkbox"/> Design and implement an equal opportunity policy	○ ○ ○ ○ ○	○ ○ ○ ○ ○
<input type="checkbox"/> Set targets to achieve a gender balance in the workforce	○ ○ ○ ○ ○	○ ○ ○ ○ ○
<input type="checkbox"/> Organise conferences and workshops on gender	○ ○ ○ ○ ○	○ ○ ○ ○ ○
<input type="checkbox"/> Actions to improve work-life balance	○ ○ ○ ○ ○	○ ○ ○ ○ ○
<input type="radio"/> Other:	Although no specific target on gender equality was set, the project has given equal opportunity of participation and involvement to men and women.	
<b>7. Was there a gender dimension associated with the research content – i.e. wherever people were the focus of the research as, for example, consumers, users, patients or in trials, was the issue of gender considered and addressed?</b>		
<input type="radio"/> Yes- please specify		
<input checked="" type="radio"/> No		
E Synergies with Science Education		
<b>8. Did your project involve working with students and/or school pupils (e.g. open days, participation in science festivals and events, prizes/competitions or joint projects)?</b>		
<input checked="" type="radio"/> Yes- please specify	Workshops, seminars, recruitments and mobilities	
<input type="radio"/> No		
<b>9. Did the project generate any science education material (e.g. kits, websites, explanatory booklets, DVDs)?</b>		
<input checked="" type="radio"/> Yes- please specify	The project generated a public website and a publication relevant for science development (AGORA Policy Brief)	
<input type="radio"/> No		
F Interdisciplinarity		
<b>10. Which disciplines (see list below) are involved in your project?</b>		
<input type="radio"/> Main discipline <sup>1</sup> : 4.1		
<input type="radio"/> Associated discipline <sup>1</sup> : 1.5	<input type="radio"/>	Associated discipline <sup>1</sup> : 5.2
G Engaging with Civil society and policy makers		
<b>11a Did your project engage with societal actors beyond the research community? (if 'No', go to Question 14)</b>	<input checked="" type="radio"/> ○	Yes No

<sup>1</sup> Insert number from list below (Frascati Manual).

<b>11b If yes, did you engage with citizens (citizens' panels / juries) or organised civil society (NGOs, patients' groups etc.)?</b>				
<input type="radio"/> No <input checked="" type="radio"/> Yes- in determining what research should be performed <input type="radio"/> Yes - in implementing the research <input type="radio"/> Yes, in communicating /disseminating / using the results of the project				
<b>11c In doing so, did your project involve actors whose role is mainly to organise the dialogue with citizens and organised civil society (e.g. professional mediator; communication company, science museums)?</b>			<input type="radio"/> <input checked="" type="radio"/>	Yes No
<b>12. Did you engage with government / public bodies or policy makers (including international organisations)</b>				
<input type="radio"/> No <input checked="" type="radio"/> Yes- in framing the research agenda <input type="radio"/> Yes - in implementing the research agenda <input type="radio"/> Yes, in communicating /disseminating / using the results of the project				
<b>13a Will the project generate outputs (expertise or scientific advice) which could be used by policy makers?</b>				
<input checked="" type="radio"/> Yes – as a <b>primary</b> objective (please indicate areas below- multiple answers possible) <input type="radio"/> Yes – as a <b>secondary</b> objective (please indicate areas below - multiple answer possible) <input type="radio"/> No				
<b>13b If Yes, in which fields?</b>				
Agriculture Audiovisual and Media Budget Competition Consumers Culture Customs Development Economic and Monetary Affairs <b>Education, Training, Youth</b> Employment and Social Affairs	x	Energy Enlargement Enterprise <b>Environment</b> External Trade Fisheries and Maritime Affairs Food Safety Foreign and Security Policy Fraud Humanitarian aid	x	Human rights Information Society Institutional affairs Internal Market Justice, freedom and security Public Health Regional Policy Research and Innovation Space Taxation Transport

<b>13c If Yes, at which level?</b> <input type="radio"/> Local / regional levels <input checked="" type="radio"/> National level <input type="radio"/> European level <input type="radio"/> International level		
<b>H Use and dissemination</b>		
<b>14. How many Articles were published/accepted for publication in peer-reviewed journals?</b>		<b>0</b>
<b>To how many of these is open access<sup>2</sup> provided?</b>		
<b>How many of these are published in open access journals?</b>		
<b>How many of these are published in open repositories?</b>		
<b>To how many of these is open access not provided?</b>		
<b>Please check all applicable reasons for not providing open access:</b>		
<input type="checkbox"/> publisher's licensing agreement would not permit publishing in a repository <input type="checkbox"/> no suitable repository available <input type="checkbox"/> no suitable open access journal available <input type="checkbox"/> no funds available to publish in an open access journal <input type="checkbox"/> lack of time and resources <input type="checkbox"/> lack of information on open access <input type="checkbox"/> other <sup>3</sup> : .....		
<b>15. How many new patent applications ('priority filings') have been made?</b> <i>("Technologically unique": multiple applications for the same invention in different jurisdictions should be counted as just one application of grant).</i>		<b>0</b>
<b>16. Indicate how many of the following Intellectual Property Rights were applied for (give number in each box).</b>	Trademark	<b>0</b>
	Registered design	<b>0</b>
	Other	<b>0</b>
<b>17. How many spin-off companies were created / are planned as a direct result of the project?</b>		<b>0</b>
<i>Indicate the approximate number of additional jobs in these companies:</i>		
<b>18. Please indicate whether your project has a potential impact on employment, in comparison with the situation before your project:</b>		
<input checked="" type="checkbox"/> Increase in employment, or <input type="checkbox"/> Safeguard employment, or <input type="checkbox"/> Decrease in employment,	<input type="checkbox"/> In small & medium-sized enterprises <input type="checkbox"/> In large companies <input type="checkbox"/> None of the above / not relevant to the project	

<sup>2</sup> Open Access is defined as free of charge access for anyone via Internet.

<sup>3</sup> For instance: classification for security project.

<input type="checkbox"/>	Difficult to estimate / not possible to quantify		
<b>19.</b>	<b>For your project partnership please estimate the employment effect resulting directly from your participation in Full Time Equivalent (FTE = one person working fulltime for a year) jobs:</b>	<i>Indicate figure:</i> 4 FTE during 3 years	
	Difficult to estimate / not possible to quantify		<input type="checkbox"/>
<b>I Media and Communication to the general public</b>			
<b>20.</b>	<b>As part of the project, were any of the beneficiaries professionals in communication or media relations?</b>		
	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
<b>21.</b>	<b>As part of the project, have any beneficiaries received professional media / communication training / advice to improve communication with the general public?</b>		
	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
<b>22</b>	<b>Which of the following have been used to communicate information about your project to the general public, or have resulted from your project?</b>		
<input checked="" type="checkbox"/>	Press Release	<input type="checkbox"/>	Coverage in specialist press
<input type="checkbox"/>	Media briefing	<input type="checkbox"/>	Coverage in general (non-specialist) press
<input type="checkbox"/>	TV coverage / report	<input type="checkbox"/>	Coverage in national press
<input type="checkbox"/>	Radio coverage / report	<input type="checkbox"/>	Coverage in international press
<input checked="" type="checkbox"/>	Brochures /posters / flyers	<input checked="" type="checkbox"/>	Website for the general public / internet
<input type="checkbox"/>	DVD /Film /Multimedia	<input checked="" type="checkbox"/>	Event targeting general public (festival, conference, exhibition, science café)
<b>23</b>	<b>In which languages are the information products for the general public produced?</b>		
<input checked="" type="checkbox"/>	Language of the coordinator (English)	<input checked="" type="checkbox"/>	English
<input checked="" type="checkbox"/>	Other language(s) French		

**Question F-10:** Classification of Scientific Disciplines according to the Frascati Manual 2002 (Proposed Standard Practice for Surveys on Research and Experimental Development, OECD 2002):

#### FIELDS OF SCIENCE AND TECHNOLOGY

##### 1. NATURAL SCIENCES

- 1.1 Mathematics and computer sciences [mathematics and other allied fields: computer sciences and other allied subjects (software development only; hardware development should be classified in the engineering fields)]
- 1.2 Physical sciences (astronomy and space sciences, physics and other allied subjects)
- 1.3 Chemical sciences (chemistry, other allied subjects)
- 1.4 Earth and related environmental sciences (geology, geophysics, mineralogy, physical geography and other geosciences, meteorology and other atmospheric sciences including climatic research, oceanography, vulcanology, palaeoecology, other allied sciences)

1.5 Biological sciences (biology, botany, bacteriology, microbiology, zoology, entomology, genetics, biochemistry, biophysics, other allied sciences, excluding clinical and veterinary sciences)

2 ENGINEERING AND TECHNOLOGY

2.1 Civil engineering (architecture engineering, building science and engineering, construction engineering, municipal and structural engineering and other allied subjects)

2.2 Electrical engineering, electronics [electrical engineering, electronics, communication engineering and systems, computer engineering (hardware only) and other allied subjects]

2.3. Other engineering sciences (such as chemical, aeronautical and space, mechanical, metallurgical and materials engineering, and their specialised subdivisions; forest products; applied sciences such as geodesy, industrial chemistry, etc.; the science and technology of food production; specialised technologies of interdisciplinary fields, e.g. systems analysis, metallurgy, mining, textile technology and other applied subjects)

3. MEDICAL SCIENCES

3.1 Basic medicine (anatomy, cytology, physiology, genetics, pharmacy, pharmacology, toxicology, immunology and immunohaematology, clinical chemistry, clinical microbiology, pathology)

3.2 Clinical medicine (anaesthesiology, paediatrics, obstetrics and gynaecology, internal medicine, surgery, dentistry, neurology, psychiatry, radiology, therapeutics, otorhinolaryngology, ophthalmology)

3.3 Health sciences (public health services, social medicine, hygiene, nursing, epidemiology)

4. AGRICULTURAL SCIENCES

4.1 Agriculture, forestry, fisheries and allied sciences (agronomy, animal husbandry, fisheries, forestry, horticulture, other allied subjects)

4.2 Veterinary medicine

5. SOCIAL SCIENCES

5.1 Psychology

5.2 Economics

5.3 Educational sciences (education and training and other allied subjects)

5.4 Other social sciences [anthropology (social and cultural) and ethnology, demography, geography (human, economic and social), town and country planning, management, law, linguistics, political sciences, sociology, organisation and methods, miscellaneous social sciences and interdisciplinary, methodological and historical SIT activities relating to subjects in this group. Physical anthropology, physical geography and psychophysiology should normally be classified with the natural sciences].

6. HUMANITIES

6.1 History (history, prehistory and history, together with auxiliary historical disciplines such as archaeology, numismatics, palaeography, genealogy, etc.)

6.2 Languages and literature (ancient and modern)

6.3 Other humanities [philosophy (including the history of science and technology) arts, history of art, art criticism, painting, sculpture, musicology, dramatic art excluding artistic "research" of any kind, religion, theology, other fields and subjects pertaining to the humanities, methodological, historical and other SIT activities relating to the subjects in this group]