



Thematic WORKSHOP on AGRICULTURE, FOOD, FISHERIES & BIOTECHNOLOGY

**for the identification of the research topics to be
envisaged under the FP7 forthcoming Work
Programmes**

REPORT

INCONET – MIRA Project

Synthetic Report on the Thematic WORKSHOP on AGRICULTURE, FOOD, FISHERIES & BIOTECHNOLOGY for the identification of the research topics to be envisaged under the FP7 forthcoming Work Programmes

A thematic workshop on Food, Agriculture, Fisheries and Biotechnology (FAB) has been organized in **Valenzano, Bari, Italy on 13-14 July 2009**, in the framework of the EC-funded project MIRA - *Mediterranean Innovation and Research Coordination Action* (INCO – CT – 2007-211359).

The organizing and hosting Institution of this thematic workshop was the CIHEAM – IAMB (*International Centre for Advanced Mediterranean Agronomic Studies*), in collaboration with the CNR – Mediterranean and Middle East (Italy) and DT-MENESFCRS (Morocco).

The FAB workshop was an opportunity for 40 researchers and international experts to debate around two major issues related to the **MEDITERRANEAN SUSTAINABLE AGRICULTURE UNDER CLIMATE CHANGES: “Food Chain, Food Safety and Food Security; Water and Land Resources Management”**.

Participants were MIRA strategic partners and experts from **Morocco, Tunisia, Egypt, Algeria, Libya, Lebanon, Turkey, Palestine, Jordan, Syria, Cyprus, Spain, France, Germany, Malta, Italy**, as well as from the FAO, ICARDA, CIHEAM, and EC – DG Research.

Participants actively contributed to the discussion and to the achievement of the meeting objectives.

The workshop focused on the challenges and strategies of common interest to the EU and Mediterranean partner countries, capitalizing on previous experiences and research results and providing suggestions for the implementation of S&T international cooperation, taking into account the specific programme of the 7th Framework Programme RTD, thematic area 2 –Food, Agriculture and Biotechnology.

Due to the participation of representatives of EU projects, the outputs from other projects were also presented (e.g. ARIMnet project, MEDA GO TO EUROPE project, BIOCIRCLE project).

In order to stimulate the discussion, the event was structured into the following activities:

- a **Plenary Session**, to present the general issues related to the joint research between the EU and the Mediterranean region in the areas of Food, Agriculture and Biotechnology;
- **Two parallel Working Groups** were organized to identify the relevant Mediterranean needs and priorities: *Working group n°1: “Food Chain, Food Safety, Food Security”*, chaired by Mr. A.F. Abou Hadid, President of ARC – Egypt; *Working*

group n°2: “Water and Land Resources Management”, chaired by Mr. K. Makkouk, CNRS, Lebanon;

- a **Final Plenary session** to share the conclusions and recommendations, chaired by Mr. T. Hall, Head of FAB Unit, European Commission – DG Research.

After the workshop, an on-line phase of draft review of the proposed topics has been carried out with contributions from Egypt, Jordan, Turkey, Spain, Palestine, Morocco, Cyprus, Syria.

The main output of the workshop has been **a set of identified regional research topics and priorities** to be envisaged in the future EU research agenda, particularly for proposing **SICA (Specific International Cooperation Activities)** :

TOPIC 1) Water and Land Resources Management:

- Design, develop and disseminate appropriate and sustainable technologies through multi-scale and multidisciplinary approaches to promote the efficient and productive use of available water in agriculture
- Develop affordable technologies (emphasizing biotechnologies) for waste water treatment and safe agricultural reuse in the Mediterranean.
- Develop new tools to target more effective measures to assess and manage climatic risks, to enhance adaptation to drought and climate change and contribute to mitigation via land and water management
- Develop new plant materials specifically adapted to climate change, drought and salinity in the Mediterranean
- Explore new governance, institutional mechanisms (or models) and economic tools enabling the implementation of sustainable water use
- Develop analytical tools to support decisions on land and water use and technology adaptation at farm level
- Develop affordable appropriate solutions to improve rangeland management and help livestock producers (particularly small ruminants and camels) to adapt to changing climatic conditions.

TOPIC 2) Food Chain, Food Safety And Food Security:

- Measures to adapt crop chains of Mediterranean products (i.e. olive, citrus) to the effect of climate change
- Reducing post-harvest losses and contaminations
- Improvement of access to nutritious and safe food
- Low environmental impact for the quality improvement of Mediterranean fruit and vegetable productions
- Competitiveness of agricultural products from non EU Med. countries to global market
- Networking for data and technology exchange in the Med. Area
- Governance and institutional aspects for sustainable development

ANNEX 1

PROPOSED TOPICS TO BE ENVISAGED AS Specific International Cooperation Activities (SICA) FOR THE AGRICULTURE, FOOD PROGRAMME OF THE 7th FP.

Deliverable of MIRA PROJECT - WP 4, Task 4.

The topics proposed in this report have been suggested by the experts participating in the Workshop on Common EU-MPC Priorities Identification in the FAB Workshop organized by MIRA Project in Bari (Italy) on 13-14 July 2009, following a preparatory work summarizing the national MPC priorities in this area, and the content of the Work Program of the Agriculture, Food and Biotechnology Priority of the 7th Framework Programme.

The criteria for topic selection concerning the Mediterranean region were thus:

- strategic dimension
- regional dimension
- mutual interest for southern and northern countries
- new topics (regarding recent calls and current projects)

All calls should possibly be SICA to ensure equal contributions from MPCs and other third countries.

WORKING GROUP N. 1

Proposals related to topic “WATER AND LAND RESOURCES MANAGEMENT”

Participants:

- MAKKOUK KHALED – CNRS, LEBANON (CHAIRMAN)
- NICOLA LAMADDALENA - CIHEAM-IAMB, ITALY (RAPPORTEUR)
- ENRIQUE PLAYAN – CSIC, SPAGNA
- KEHAL SALIM - CDER, ALGERIE
- SADI ABDELKRIM – CDER, ALGERIE
- MAHA TAWFIK – WRC, EGYPT
- DODET MICHEL – INRA, FRANCE
- BÄRLUD ILONA – CESR, GERMANY
- MARILENA ROSSANO – CNR, ITALY
- ABUJAFAR ALMIRI ALMIRI – EGA, LIBYA
- REDOUANE CHOUKR-ALLAH - IAV, MOROCCO
- VICTOR SAMARAWEERA - SRI LANKA
- LUIS S. PEREIRA – CEER-ISA, PORTUGAL
- BAYAN MUZHER – CGSAR, SYRIA
- PASQUALE STEDUTO – FAO
- PAVIZ KOCHAFKAN – FAO

TOPIC 1

Title: Design, develop and disseminate appropriate and sustainable technologies through multi-scale and multidisciplinary approaches to promote the efficient and productive use of available water in agriculture

Wording of call: Projects should address approaches such as water harvesting, improved land and water management, enhanced use of marginal water, hydroponics... to promote efficient use of available water in agriculture. Activities should focus on scales ranging from the farm to the basin, integrate all water sources (surface, groundwater and non-conventional), and consider institutional aspects.

Justification: Given the expected trends on pressure over water resources in the Mediterranean, projects are required to fill the gap between the state of science and current water management practices. Technologies that improve control on water withdrawals, support water governance, enhance water productivity and optimize farmers' water use need to be deployed.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected impact: Increasing water use efficiency in the whole system, from the farm to the basin, including all water sources and considering the institutional aspects. Improving water use efficiency and productivity in Mediterranean environments will result in increased water availability for alternative uses and improved life standards for rural populations. The multi-scale and multidisciplinary approach will result in improved user acceptance of the proposed measures and wider societal implication in technological water issues. The solutions proposed as a result of this project could contribute to address the water problems of similar areas of the world.

TOPIC 2

Title: Development of affordable technologies (emphasizing biotechnologies) for waste water treatment and safe agricultural reuse in the Mediterranean.

Wording of call: Projects should focus on innovative, appropriate and cost-effective technologies (and biotechnologies) for wastewater and sludge treatment. Solutions will be proposed for the main constraints: institutional, economic (including energy input and cost recovery) and financial. Viable options based on different treatment levels for different uses of wastewater (including food and non-food crops, landscaping and groundwater recharge) and sludge will be assessed accounting for the parameters of the Mediterranean region, addressing sustainability and social acceptance.

Justification: As the Mediterranean population becomes increasingly urban, it becomes more important to ensure proper urban wastewater treatment and reuse for additional purposes. The current Mediterranean water deficits will be alleviated by the adoption of safe wastewater reuse programs. Research is needed to address the factors currently limiting the affordability, robustness and user acceptance of these technologies in Mediterranean environments.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected impact: Making available appropriate and cost-effective new technologies, including biotechnologies for wastewater and sludge treatment, make it easier to progressively extend the reuse (and recycling) of urban and industrial waters in agriculture and landscape irrigation, their use for groundwater recharge, as well as the disposal of treated waters with avoidance of negative impacts on the human health. In particular, it will become also easier to adopt an integrated management of surface, groundwater and non-conventional water resources in areas where scarcity is or may become a key issue.

TOPIC 3

Title: Develop new tools to target more effective measures to assess and manage climatic risks, to enhance adaptation to drought and climate change and contribute to mitigation via land and water management

Wording of call: Projects should focus on agro-ecosystem response to climate change, using models and/or scenarios (combining ICT, system biology, environmental sciences, hydrology...) to assess adaptation measures and evaluate their mitigation capacity. Specific attention should be attached to the availability of and access to data. Projects will also provide options for long-term solutions to respond to conditions created by climate change and/or tools to assess risks related to extreme events (specifically drought).

Justification: A better understanding of the response of agro-ecosystems to climate change and drought will provide a knowledge frame for decision making from risk management institutions, water and land management agencies and farmers' organizations. It will contribute to designing new governance models and institutional arrangements.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected impact: the development of agro-ecosystem responses to climate change shall lead to adaptation measures that will help to progressively coping with climate change impacts and challenges. Using models and scenarios relative to climate change, ecosystem and agricultural responses, as well as relative to related impacts constitute adequate approaches to understand affected process and to develop measures, whatever they are of physical, biologic, economic, social or institutional nature. In particular, if attention is paid to extreme phenomena, whatever they are of local and short scale (such as flooding), or large temporal and spatial scale (droughts), related studies and developments will help to mitigate and adapt to climate change.

TOPIC 4

Title: Develop new plant materials specifically adapted to climate change, drought and salinity in the Mediterranean

Wording of call: Projects should focus on breeding and genomic technologies for crop adaptation to climate change and drought. Breeding targets should include drought and salinity tolerance, as well as low-input cultivation. The use of wild relatives and local cultivars will be considered. The project should target specific Mediterranean crops.

Justification: Climate change will result in more severe dry spells and increased soil salinity in a number of Mediterranean agro-ecosystems. Under these circumstances, attaining food security goals will require use of germplasm showing tolerance to the abovementioned factors and being profitable even with the expected high energy costs. Low-input Mediterranean agriculture can benefit from new varieties of traditional crops which constitute the basis for the local diet. These plant materials will be used to reduce food security uncertainties caused by climate change. Proponents of the technology argue that biotechnology has the potential to lead to increase in food security, decreased pressure on land use, sustainable yield increase in marginal lands or inhospitable environments and reduced use of water and agrochemicals in agriculture.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPCs Collaborative projects (small or medium scaled focused research projects).

Expected impact: Rehabilitation of marginal lands, enhancing the plant tolerance to abiotic stress and the sustainability of crop chains which lead to increase the yield, especially in marginal lands, and their positive socio-economic effects on local communities. The plant materials resulting from the project will contribute to the sustainability of rural Mediterranean communities in the context of climate change. Maintaining agricultural production in the foreseen conditions requires a combination of plant materials and agricultural practices. This proposal addresses part of the solution, producing plants capable of attaining profitable yields under variable levels of drought and salinity. Targeting local cultivars adapted to low-input cultivation requires public research funds, since the project outputs are far from the interests of agribusiness companies.

TOPIC 5

Title: Explore new governance, institutional mechanisms (or models) and economic tools enabling the implementation of sustainable water use

Wording of call: The proposal will assess from an institutional point of view to what extent is the current Mediterranean water governance suited to meet the challenges derived from societal transformation and climate change. After the identification of the major gaps, the proposal should design suitable solutions for the local water institutions (including economic instruments) and discuss the conditions for their successful implementation in the region.

Justification: The growing consideration of sustainability in water management requires relevant changes in the current governance schemes and institutional arrangements. Inter-sector conflicts, environmental issues and the need to effectively respond to extreme events ask for new governance models based on economic criteria, long-term perspective and strong societal participation.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected impact: The proposal aims at improving governance techniques for water resources in the Mediterranean countries inducing the users, at all levels, to a better and appropriate water management.

TOPIC 6

Title: Develop analytical tools to support decisions on land and water use and technology adaptation at farm level

Wording of call: Projects should focus on developing innovative analytical approaches and decision support tools. These will address farmers' selection of land and water use technologies and management strategies. The local institutional and governance constraints will be considered. The output will respond to appropriate economic, environmental, social and technical criteria, including interaction with the water distribution system.

Justification: Considering that the farm level is the one where land and water are used for agriculture production and for generation farmers' income, it is important to focus attention on the processes and mechanisms that lead farmers to select management and technology options considering external and farms constraints.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected impact: Farmers will be helped to increase their income through the development of innovative decision tools.

TOPIC 7

Title: Development of affordable appropriate solutions to improve rangeland management and help livestock producers (particularly small ruminants and camels) to adapt to changing climatic conditions

Wording of call: Projects should focus on identifying means and ways to improve rangeland management in the Mediterranean region including improvement and conservation of adapted local breeds, especially small ruminants and camels. These techniques will be considered in combination with water conservation and water harvesting operations.

Justification: Regions receiving 100-200 mm of rainfall cover large areas in many Mediterranean countries, where livelihood of inhabitants heavily depends on livestock production. Inhabitants of such regions are facing a number of challenges such as rangeland degradation, shortage in animal feed and trans-boundary diseases that limit livestock trade and affect human health. With climate change, such challenges are likely to become more severe. Intensifying research in these areas will offer solutions which will promote better livestock and natural resources management.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected impact: Rationalizing rangeland management, rehabilitation of natural resources, strengthening animal health services and setting up veterinary checkpoints, technical support to livestock activities.

WORKING GROUP N. 2

Proposals related to topic “FOOD CHAIN, FOOD SAFETY AND FOOD SECURITY”

Participants:

- AYMAN ABOU HADID - ARC, EGYPT (*CHAIRMAN*)
- ANNAMARIA D'ONGHIA - CIHEAM/IAMB , ITALY (*RAPPORTEUR*)
- BIAGIO DI TERLIZZI - CIHEAM/IAMB , ITALY
- CHIARA POCATERRA - APRE, ITALY
- BOUKSAIM MOHAMMED – INRA, MOROCCO
- GEHAN AHMED HOSNY MAHMOUD – ARC, EGYPT
- HABIBA HASSAN WASSEF - NRC, EGYPT
- CRISTOPHE COTILLON – ACTIA, FRANCE
- ROMAN NOETZEL – PT-DLR, GERMANY
- ENRICO ARNERI – CNR, ITALY
- GHADEER MEHYAR - UNIVERSITY OF JORDAN, JORDAN,
- REBECCA KOKKINOFTA – SGL, CYPRUS
- ALI ISMAIL – LEBANESE UNIVERSITY, LEBANON
- MARICA GATT –MRRA, MALTA,
- ETIENNE MONTAIGNE – CIHEAM /IAMM, FRANCE
- MOHAMMED EL OTHMANI - IAV, MOROCCO
- HASSAN ABOU – QAUD – AN NAJAH UNIVERSITY, PALESTINE
- MAJD JAMAL - ICARDA, SYRIA
- HAMDY SALEM – ESIAT, TUNISIA
- SAHIN ANIL - MOA, TURKEY
- FRIKETTIN SAHIN – YEDITEPE UNIVERSITY, TURKEY
- SISIRA TISSIKUMARA - MOA, SRI LANKA
- REKIA BELAHSEN – DOUKKALI UNIVERSITY, MOROCCO
- MOUIN HAMZE – CNRS, LEBANON

TOPIC 1

Title: Measures to adapt the crop chains of Mediterranean products (i.e. olive, citrus) to the effect of climate change

Wording of call: Projects should focus on innovative tools and technologies for: enhancing plant resistance/tolerance to biotic and abiotic stress by the improvement of gene transfer technology between plants and double haploid technology; controlling plant adversities by the improvement of Systematic Taxonomy and the development of innovative Pest Risk Assessment (PRA) programmes of emerging and/or introduced pests/pathogens of Mediterranean fruit trees and vegetables (i.e modeling, remote sensing, DNA-barcoding); enhancing identification, conservation and use of the Mediterranean biodiversity by the improvement of molecular techniques for Taxa characterization.

Justification: Mediterranean biogeography has gradually modified due to climate changes; actually the newly introduced and the secondary plant pests/pathogens and new abiotic stress are seriously influencing plant species, varieties survival and the sustainability of crop chains. To this aim National Services for 'Species identification and conservation and use' and for 'Plant Protection need to be provided with innovative tools and technologies.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected impact: Agriculture productive scenario will move to the use of new developed varieties, which are more resistant/tolerant to abiotic and biotic stresses showing up in relation to climatic changes. The use of resistant/tolerant varieties obtained with innovative techniques in combination with the application of proper pest control and PRA strategies will preserve the biodiversity and improve food availability and economic income to match with population wellness. The process will lead to social stability by the maintenance and/or enhancement of the economic value of production.

TOPIC 2

Title : Reducing post-harvest losses and contaminations

Wording of call: Projects should focus on hazard control strategies in food storage facilities, handling and transport such as: the employment of natural antimicrobial compounds to increase microbial safety and quality of food; the use of edible packaging to reduce the contact between food and environment; the improvement of the handling, grading, packaging and use of food products. A reduction of health hazards through surveillance, prevention and control of post-harvest secondary pathogens and food-borne diseases, establishment of food hazard monitoring and evaluation units.

Justification: Post-harvest losses greatly vary among commodities in relation to production areas, storage and management. For example, estimates of the post-harvest losses of food grains in the developing world may reach 50 percent. To reduce such losses research is needed to address to the development of food

contact materials (major methods for gas permeability), predictive modeling of spoilage and food antimicrobial interaction.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected impact:

Reducing post harvest contamination and losses by innovative and environmental friendly techniques will increase the gross agriculture product, improve food quality and safety, leading to a safer and healthy environment. Control of food stuffs and feed contaminants will reduce the amount of food-related diseases improving population income and wellness. Year-around availability of quality stored food will give the opportunity of balanced meal and thus better personal and social life.

TOPIC 3

Title: Improvement of access to nutritious and safe food

Wording of call: Projects should focus on: improvement of methods for the identification, assessment and monitoring of food quality in Mediterranean foodstuffs; improvement of knowledge and capacity to anticipate major threats in production, storage, processing and distribution of food and feed under the influence of climate change; innovation of diagnosis and control methods of animal zoonotic diseases (epidemiology data collection). Projects should focus on:

- a) Improving knowledge and capacity to anticipate major threats in the production, storage, processing and distribution of food and feed under the influence of climate change. The project is expected to propose supportive measures and systems that protect the vulnerable producers and their products (whether crops or animals) and help them resume production.
- b) Innovation of diagnosis and control methods of animal zoonotic diseases (epidemiology data collection). The project will contribute to the production of updated knowledge on the mapping of the epidemiology of animal zoonotic diseases and propose a monitoring system that can raise the efficiency of control measures.
- c) Improvement of methods for the identification, assessment and monitoring of food intolerance provoking factors in Mediterranean foodstuffs.

Justification

- a) Acquiring the ability to anticipate major threats to agricultural production, that can be attributed to climate change, can raise the preparedness of the producers and increase their capacity to cope with the impact of climate change as well as shorten the period of interruption of production. This can represent a significant contribution to limiting food losses at a time of a food crisis.
- b) With climate change and due to other factors such as trans-boundary spread, the epidemiology of animal zoonotic diseases is changing and new diseases are emerging in regions or climatic zones where they did not exist before. Identification and sharing of diagnosis and control measures can have a significant impact on control and prevention of these animal diseases that are becoming an important threat to the health of communities.

c) Food intolerance represents an important health problem in Mediterranean countries. Undeclared components in food products pose a major risk for hypersensitive persons. Reliable detection and quantification methods for food intolerance are necessary to ensure compliance with food labeling and to improve consumer's protection. Special emphasis must be laid on traditional foods for the support of both products and consumer's health. Food intolerance can be managed simply by cutting the food out of the diet. For this reason there is a need to develop the methodology for analysis of local foods and to control the market.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected impact:

Predetermination of food risk factors, such as intolerance- inducing compounds, production threats and zoonotic bacteria that are related to the Mediterranean foods help in pre-arrangement of risk-coping plans that limit the occurrence of these risks and provide safer foods.

TOPIC 4

Title: **Low environmental impact for the quality improvement of Mediterranean fruits (dates, citrus, olive etc.) and vegetables productions**

Wording of call: Projects should focus on Integrated Pest Management and Organic production (nursery plants included) and processing systems, using natural active substances and plant-growth promoting microorganisms for fertility and biological control management.

Justification: The quality and safety of fruit and vegetables at Mediterranean level are not enough to meet the international standards and food needs of the local population. Innovative approaches based on efficient and environmentally-friendly tools are highly demanded to reduce/replace chemical fertilizers and plant protection products in agricultural production.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected impact: A sustainable pest control by innovative and coordinated use of pest mortality factors, reduction or replacement of chemical fertilizers by the sustainable use of natural resources, will lead to reduction of environmental pollution, production of healthy food, with a cost reduction, for better life quality. Certified IPM/organic fruits and vegetables will open the international market for Mediterranean agriculture products increasing the national income and social development.

TOPIC 5

Title: **Competitiveness of agricultural products from non EU Med. countries to global market**

Wording of call: Projects should focus on promotion, characterization and processing of traditional products for modern consumers. This will improve

commercial and health images of traditional food product and will give to non-EU Mediterranean countries the possibility to enter the European food market. More enhanced traditional food quality will provide local consumers with lower food-connected risk and better nutritional quality of the food itself.

Justification: Rural development in many countries around the Mediterranean Basin depends on agriculture and in many non EU countries, local products are the most dominant and the main source of income. These products can play a good role in human nutrition and health, if they are well characterized and accepted by the modern consumer. However, limited information is known about their genetics, composition and nutritional value. So their inventory, identification, characterization, and presentation can place them in the global market. Moreover, the typical agricultural products' knowledge will contribute to develop database, food matrices, new food technologies in order to apply the appropriate technology to disclose their richness. Nevertheless, the quality and safety of several agricultural products of non-EU Mediterranean countries are still below the market trade requirements, therefore, implementing effective and innovative management practices to ensure cost efficiency and reduce/replace chemical fertilizers and pesticides in agricultural crop production and food processing (i.e. probiotic starter bacteria can give an added value by fighting against food-borne diseases) are necessary.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected Impact :

Characterization and enhancing quality of the traditional foods provide European market with new foods that are high in nutrients, safe, contain low chemical compounds and increase the income of the local producers.

The overall aims of these actions are:

- to increase the knowledge on local products strengthening the network among scientific institutions (from universities or ministries) to enhance the dialogue between North and South Mediterranean shores and to characterize the resources existing in rural areas.
- to activate the chain organization for local products creating job opportunities in the countries that have developing capacity
- to develop quality and safety standards for the production and processing of local products that could comply with the International standards generating innovation process in loco and economic support

These expected standards can be assessed by measurable indicators linked to the collaboration and activities developed, products and innovations identified, people and institutions involved.

These actions will eventually provide: a better knowledge about the composition and specific health and nutrition attributes of these foods; harmonization of information among Med. Producing countries; provide information to the consumer; more added value to these foods; better and more efficient use or appropriate cultural practices and production and handling technologies to maximize quality of these foods; positive economic impact on the growers and on local communities in the villages where these foods are grown.

TOPIC 6

Title : Networking for data and technology exchange in the Med. Area

Wording of call: Projects should focus on integrating existing resources (e.g. data sharing) and taking full advantage of new technologies. Improvement of research facilities and access of local research teams to available data.

Justification: Information technology will greatly help the growth of all topics and dissemination of results among partners: databases will contain the memory of study and experience and will serve to start up further studies. Main aspects of databases will cover traditional foodstuff composition and characterization, IPM/PRA sources of information, biotechnological, and molecular characterization of products; molecular epidemiology in aquatic animal disease control. This kind of database will greatly support the harmonization of the Mediterranean trade policy.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected Impact :

- Technology transfer from developed to developing countries;
- Improvement of research facilities and easier access to available information and research results for network partners;
- Increased knowledge and awareness among scientists, industry partners and all food chains stakeholders regarding aspects of their interest;
- Harmonisation of information among Med. Countries to facilitate trade and policy-making.

TOPIC 7

Title: Governance and institutional aspects for sustainable development

Wording of call

Projects should address political support for: national and Mediterranean legislations on food safety and food security in order to raise public awareness on these issues; regulating the effect of oil price on food production cost; the diversification of energy availability at farm level (i.e. recycling from unconventional plant biomass).

Justification

The lacking or poor regulations on food security and safety at national and Mediterranean level impose the harmonization of regulations in order to favour the free trade of agricultural products in the region, as agreed in Barcelona Declaration (1995). Moreover, oil price fluctuation is highly influencing the price of agricultural products: therefore new sources of energy are needed at farm level and strict regulations for transportation would be necessary.

Funding scheme: Specific International Cooperation Action (SICA) targeted at MPC Collaborative projects (small or medium scaled focused research projects).

Expected Impact:

Increased dialogue and cooperation between decision /policy makers and public / private enterprising in the food sector. Improved national regulatory systems to enhance policies and legislations to help in globalisation trading of the safer foods at reasonable and stable prices.