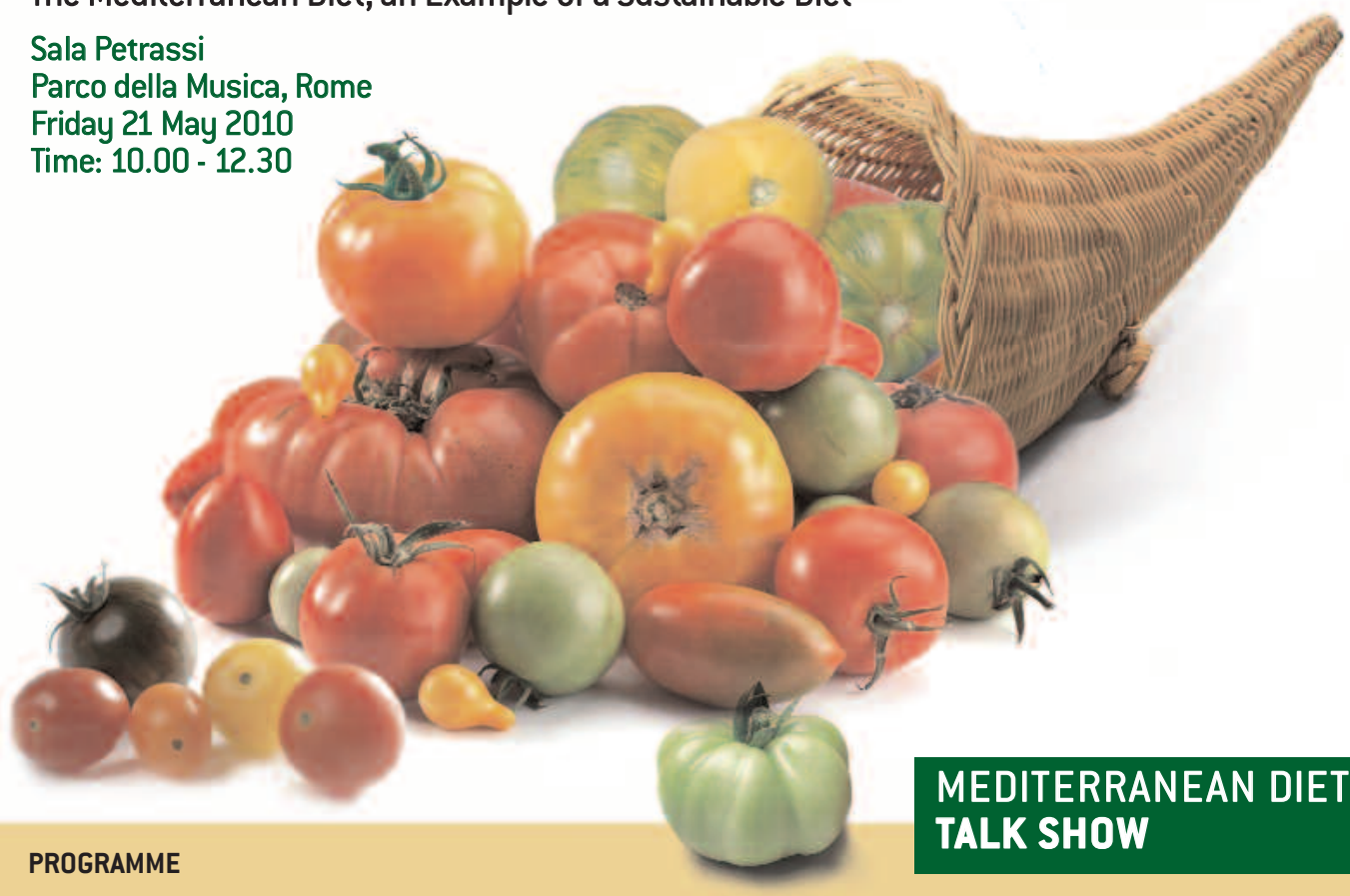
La Settimana della **Biodiversità**

Alla scoperta dei legami tra cultura cibo e natura

BIODIVERSITY? SUSTAINABLE FOOD FOR ALL

The Mediterranean Diet, an Example of a Sustainable Diet

Sala Petrassi
Parco della Musica, Rome
Friday 21 May 2010
Time: 10.00 - 12.30



MEDITERRANEAN DIET **TALK SHOW**

PROGRAMME

10.00 am - Opening: **Emile Frison**,
Director General Bioversity International

Moderator: **Glauco Benigni**, Journalist

Carlo Cannella, INRAN/CIISCAM

Sandro Dernini, Forum on Mediterranean Food Cultures

Cosimo Lacirignola, CIHEAM-IAM of Bari

Aldo Soldi, COOP-ANCC

Barbara Burlingame, FAO

Stefano Padulosi, Bioversity International

Flavio Paoletti, INRAN

Massimo Iannetta, ENEA

Giuseppe Maiani, INRAN

Lorenzo Donini, Sapienza University of Rome

Mauro Gamboni, CNR

BIODIVERSITY? SUSTAINABLE FOOD FOR EVERYBODY

The Mediterranean Diet, an Example of a Sustainable Diet

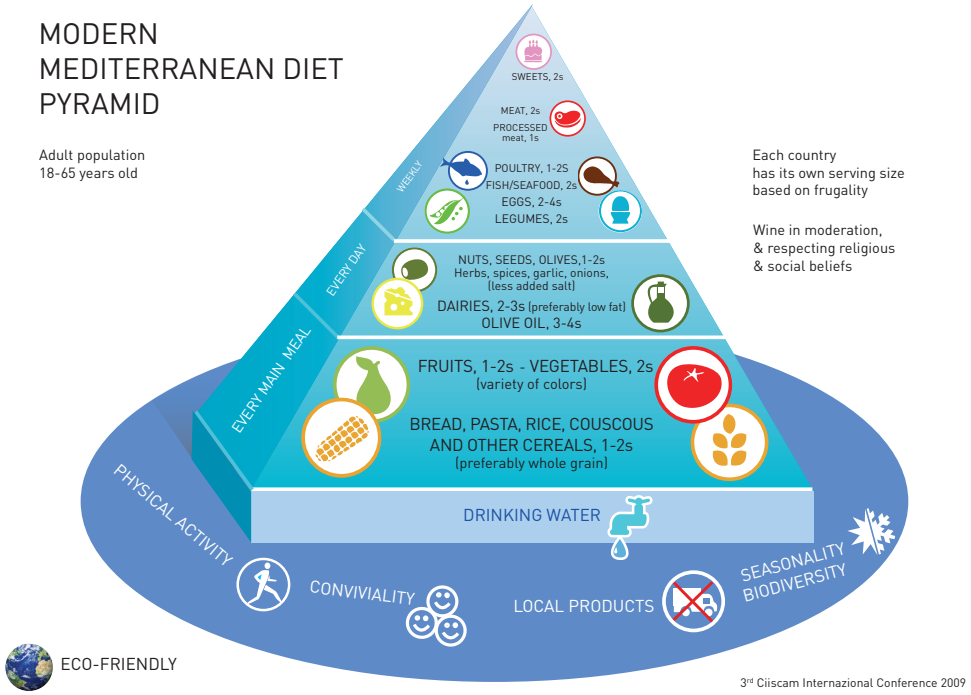
With the onset of modern agriculture and food globalization, the concepts of sustainable diet and human ecology have been neglected in favour of the intensification and industrialization of agriculture production systems. The outcome has been a sizeable increase of global food production, but with no improvements at the global level of nutrition.

It is currently estimated that the number of people suffering from hunger is now over 1 billion. In addition to the mentioned problems of undernutrition, other problems such as obesity and chronic diseases are also increasing. The alarming pace of food biodiversity loss and the deterioration of ecosystems call for a serious reconsideration of the sustainability of current agricultural systems and diets.

Why biodiversity? Biodiversity is one of the three pillars firmly supporting the pyramid of the Mediterranean Diet. It is closely linked and highly complementary to the other two pillars – cultural diversity and environmental diversity. Biodiversity is of strategic importance both at the species level and at the variety level. Interactions between the various species and the environment are also strategic. The strong erosion of biodiversity that is observed nowadays is threatening the very foundation of the Mediterranean Diet. It is therefore, urgent to promote a sustainable Mediterranean diet, rich in a variety of local and seasonal products.

CARLO CANNELLA
President, INRAN-National Research Institute on Food and Nutrition, Rome
Director, CIISCAM-International Interuniversity Studies Centre on Mediterranean Food Cultures, Sapienza University of Rome

The modern Mediterranean Diet pyramid, developed at the 3rd CIISCAM international conference held in Parma, Italy, on November 3, 2009, is a model which fit the modern day lifestyle with the traditional Mediterranean diet eating habits.



The present day lifestyle in Italy is characterized by a wide availability of food and an ever increasing state of inactivity which leads towards a situation of apparent psycho-physical well-being which frequently does not correspond to the real state of health. The typical eating habits of the Mediterranean populations have been progressively enriched with food of a high protein content, saturated fats and sugars to the point where they now exceed the necessary intake levels. We live, therefore, in an age of "apparent well-being" where the increase in life expectancy runs parallel to the increase in the risk of diseases such as: obesity, metabolic syndrome, cardiovascular disease and cancer. The new pyramid of the Modern Mediterranean Diet, addressed to individuals 18-65 years old, takes into consideration the evolution of society and highlights the basic importance of physical activity, of conviviality, of drinking water, and privileges the consumption of local seasonal food products. It is a Mediterranean diet revised on the light of modernity and well-being, without leaving out the different cultural and religious traditions and different national identities. The new pyramid represents a simple main-frame able to adapt itself to the current needs of the Mediterranean people, with respect to all local variants of the Mediterranean diet.

COSIMO LACIRIGNOLA
Director, CIHEAM-MAI - International Centre for Advanced Mediterranean Agronomic Studies
Mediterranean Agronomic Institute of Bari

CIHEAM-MAI carries out its activities across the Mediterranean region where many difficulties are encountered due to the existing economic and social disparities. In fact, the macroeconomic indicators of the region emphasise the high heterogeneity among the countries and a growing gap between the advanced economies and less developed ones. Moreover, other social and economic features make a contribution to the considerable development differences between the two Mediterranean shores:

The demographic divide;
The densely populated rural areas;
The natural resources (soil and water) scarcity;
The erosion of the Mediterranean food and cultural model;
The climate change and the loss of biodiversity.

The different evolution trends and the rapid population growth in the Southern Mediterranean region are the cause of the demographic divide cited earlier.
The rural population is still on the rise in the South Mediterranean region, and in the rural areas the number of people who live below the poverty line (less than 1 dollar/day) is increasingly higher. Water, a scarce and unevenly distributed resource, is the first hindrance to food security because water scarcity poses a serious threat to agricultural production. Furthermore, in this region water is often at the heart of political and socio-economic conflicts which are not easily controlled. In many Mediterranean countries even the eating habits are changing following the introduction of the Western and American style diet. If food security is more or less globally reached in the Southern Mediterranean countries, the issue of food safety is becoming crucial. The urbanisation of the society, the integration of women into the labour market, the retail development is deeply modifying the dietary behaviour. Following the development of the new food habits, overweight and obesity are increasingly affecting the population, primarily the new generations. At present in the Maghreb countries, for instance, obesity affects 17% of the children aged less than five years as against 7% in 1995.
The agriculture biodiversity is decreasing: in the XXth century about 75% of the plant species, which means approximately 300,000 varieties, have been lost all over the world. In Italy just 2000 fruit tree varieties have survived out of the 8000 recorded at the end of 1800. Today 1500 fruit varieties are threatened. The biodiversity of the lands bordering the Mediterranean Sea and the high number of endemic species make the region a hot spot of the global biodiversity.
Unfortunately, in adverse climatic conditions, some species might exploit their genetic diversity to adapt and make of their populations evolve locally and survive. Apart from in situ evolution, due to the climate change many species are very likely to move to other geographical areas over a time span of one century. Therefore, in the Mediterranean region agriculture, rural development, food and resources sustainability are more than elsewhere closely interconnected.
The topics that will be debated during "The Biodiversity week", the links between culture, food and nature, are high-profile

issues also emphasised by C.I.H.E.A.M. This organisation, which was created in 1962, upon the joint initiative of OCDE and the Council of Europe, brings together 13 Mediterranean countries (Albania, Algeria, Egypt, France, Greece, Italy, Lebanon, Malta, Morocco, Portugal, Spain, Tunisia and Turkey). Its remit covers education and training, research and cooperation in the Mediterranean region (but also in the Balkans and in the Near East countries), by applying the strategies which are worked out and adopted at the meetings, held every two years, by the 13 Ministers of Agriculture of its Member Countries. The Mediterranean Agronomic Institute of Bari is one of the four CIHEAM's Institutes (along with Chania, Montpellier and Zaragoza) and over the last, years beyond its institutional activities in the field of the rational management of land and water resources, the integrated pest management of Mediterranean fruit tree species, the Mediterranean organic agriculture and the rural development, it has devoted much of its efforts also to the sustainability of the Mediterranean Diet which reflects the specificity and typicality of food products and of cultures and traditions of the Mediterranean peoples.

BARBARA BURLINGAME
Senior Officer, Food and Agriculture Organization of the United Nations (FAO)

The concept of "sustainable diets" is receiving renewed attention as the world struggles with many natural and man-made disasters. Implicit in the concept are food and nutrition security and environmental impact. In several recent forums on sustainable diets, these issues have been addressed, but another equally important issue - biodiversity - has been excluded from consideration. FAO, together with Bioversity International, has been coordinating the Cross-cutting Initiative on Biodiversity for Food and Nutrition since its adoption by the CBD's Conference of the Parties in 2006.

The goal is, among other things, to raise awareness of the important contribution of biodiversity to issues of food and nutrition security, with consideration of the environment. If one looks to the Mediterranean Diet as a model of sustainable diets, then the issue of biodiversity is also implicit. In characterizing sustainable diets, including the Mediterranean Diet, the spectrum of biodiversity covers the ecosystem, the species within that ecosystem, and the genetic resources within species (e.g., varieties, cultivars, subspecies, breeds).

The Mediterranean Diet has been thoroughly research, analyzed and promoted through a variety of methods within a number of scientific and applied disciplines. It continues to be recognized and appreciated as a sustainable diet - in the Mediterranean Region - even if its practice is diminishing. In 2008, the Report of the FAO Regional Conference for Europe made important statements about sustainable diets: "Many delegations highlighted the Mediterranean Diet as rich in biodiversity and nutritionally healthy"; "promotion of the Mediterranean Diet could play a beneficial role in the sustainable development of agriculture in the Mediterranean region"; and "the goal of increased global food production, including biofuels, should be balanced against the need to protect biodiversity, ecosystems, traditional foods and traditional agricultural practices." The importance of the Mediterranean Diet for the rest of the world lies not in its specific foods and nutrients, but in the methods used to characterize/analyze it and the philosophy of sustainability that is at its core.

These same methods can be used to characterize sustainable diets in other eco and food systems. A useful recent example comes from the 5th AFROFOODS Meeting held in Dakar on December 2009, where the delegates noted that the degradation of ecosystems and the loss of food biodiversity is contributing greatly to the increases in poverty and malnutrition in Africa; recognized that returning to local crops and traditional food systems is a prerequisite for conservation and sustainable use of biodiversity for food and nutrition; acknowledged that local foods are the basis for African sustainable diets; and issued a call for action for a renewed commitment to an African food renaissance, with biodiversity at its core. The Mediterranean Diet can be the model for sustainable diets and a reference for addressing some of the challenges that face many of the developing regions around the globe, with more than one billion hungry people worldwide.

STEFANO PADULOSI
Researcher, Bioversity International

The UNESCO's recognition of the Mediterranean Diet as an intangible heritage of Humanity would represent a unique opportunity to promote further, at the global level, a proven healthy food system beyond its current levels of appreciation. The benefits of such recognition will also contribute to setting in motion a virtuous process leading towards the possible recognition also of other healthy traditional food systems and in so doing raise awareness of the important role played by thousands of crops currently understudied, under-utilized and under-conserved. The Mediterranean is among the richest regions in biodiversity in the world and many of its indigenous species are important ingredients in the preparation of century-old traditional food recipes. Owing to their peculiar nutritional value and taste, these resources, contribute to making local food preparations diverse, attractive and healthy at the same time.

Unfortunately, globalization of agricultural markets and changes in life styles are having a profound impact on the conservation and use of these resources leading to their irreplaceable loss. Furthermore, indigenous knowledge on how to recognize, cultivate and use these local crops is also being lost at unprecedented rate. The ex situ conservation of local Mediterranean species and varieties is today very limited, and with the exception of a few species, most of this diversity is maintained in situ/on farm by aging farmers in small holdings and/or home gardens. While the international community is currently strengthening its support on the ex situ conservation of staple crops, very limited attention is directed towards the conservation of vegetables, fruits trees, condiment and aromatic plants. The loss of agricultural diversity occurring around the Mediterranean basin is having negative repercussions on the food security and livelihood of populations living in the region. An exacerbation of the genetic erosion of agrobiodiversity due to globalization trends and climate change is reducing the sustainability of local production systems and along with it our ability to safeguard the Mediterranean Diet at the local level through the continued use of indigenous species and varieties.

The promotion of the Mediterranean Diet needs to be thus accompanied also by parallel actions aimed at assessing the resilience and adaptation capacities of local production systems, mapping and monitoring of diversity and use over time and space as well as supporting concrete initiatives to assist custodian farmers and their role in safeguarding and promoting traditional crops. One such way to support local agrobiodiversity is to strengthen the quality of its products. Interventions in that direction include assessment of the relationship between agricultural practices and food quality, examination of technologies in support of traditional methods of processing, value addition and packaging, provision of dietary guidelines that address the role of traditional crops in healthy diets, and establishment of greater synergy among the agricultural, health, environment and education sectors.

MASSIMO IANNETTA
Head, Sustainable Development and Innovation of the Agro-Industrial System Technical Unit, Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA)

The sustainability of the food chain (Production, Transformation, Distribution and Consumption) is to be assessed on the basis of:

1. its energetic requirements and its contribution to the emission of greenhouse gases (CO2 equivalent);
2. its use of natural resources (water, biodiversity, patents on life matter);
3. the food choices of consumers (safe/Mediterranean diet);
4. its contribution to reducing the gap between malnutrition and obesity (food security).

In the last century (1910-2010), the ratio between the energy used to produce food and the energy contained into the food, assessed by means of the Life Cycle Energy Input (LCEI), increased from about 1 to over 100. We also know that the more energy is used, the more greenhouse gases are added to the atmosphere. This is particularly true for Italy, because of its marked reliance on fossil fuels. In Italy, greenhouse gases produced by agro-industrial activities contribute to about 18% of total emissions, and can be summarized as follows:

Agro-industrial food chain	Mt CO2 eq.
Food production (fertilizers, treatments, water use, etc)	47,1
Gut fermentation (methane* from animal production)	11,6
Manure and wastewater (nitrous oxide ** and ammonia)	6,9
Transport	19,8
Industrial processing	5,5
Packaging	13,1
Total ***	104,00

* Methane has a greenhouse effect 20 times larger than CO2
** Nitrous oxide has a greenhouse effect 300 times larger than CO2
*** This total estimate does not include the contribution of food consumption modalities and food waste during distribution.

Most Italians abandoned the traditional Mediterranean diet to adopt a much more caloric diet (increasing daily caloric intake from an average of 2100 to about 3600). Each of us thus contribute an average of 1778 CO2 eq./year to the overall national CO2 emissions, with individual values ranging from 600 CO2 eq./year (egg/vegetarian diet) to 3000 CO2 eq./year (daily red meat).

An optimization of the whole food chain, from production to consumption, would bring economic, environmental, social and especially health improvements. How can we improve the sustainability of the food chain? There is no universal recipe that can be applied to the myriad varieties of agro-industrial processes, but we have a few general guidelines:

- optimize the input to the agricultural production (precision farming, conservative farming, organic farming);
- use wastewater, manure and remaining of agricultural production to obtain biogas and bioenergy;
- improve intermodal logistics for the transport of agricultural products;
- improve the processes of industrial transformation and packaging.

ENEA has knowledge, laboratories and facilities that have, for the last several years, collaborated with private enterprises in research and precompetitive development activities. ENEA now aims at reinforcing its network of national and international collaboration through the creation of a public-private laboratory on the sustainability of the Italian food chain.

FLAVIO PAOLETTI
Head, Production Systems and Technological Processes: Vegetable Quality Production, National Research Institute on Food and Nutrition (INRAN), Rome

The food system is considered one of the main responsible for the ecosystem degradation because of the energy consumption of the whole food chain, the emission of greenhouse gases with their effect on the climate, the often inefficient and non functional use of the water resources, the soil fertility erosion due to the intensive farming procedures and the consequent desertification. Regarding the impact on the environment, serious responsibilities are ascribed to the livestock breeding, in particular to the intensive ones.

In the face of the increase of the obesity and other food related diseases, there is a general agreement by now about the need of a change of the food habit in Western countries, with a reduction of the daily intake of calories and an increase of the consumption of plant foods. Because of its recommendations to eat more fruit and vegetable, better if fresh and in season, and to limit the use of food from animal sources, it has been scientifically demonstrated that the Mediterranean Diet has positive effects on the human health.

On the basis of the considerations reported above, these recommendations could be considered a base element to attribute to the MD the potential of contributing to the mitigation of the environmental impact of the food system.

The MD is a varied diet that need a correspondent variety in the food production, that could be considered a contribute to the preservation of the ecosystem biodiversity. When biodiversity is mentioned, normally one thinks to the plant and animals that live on and above the soil surface, ignoring all those living species that are into the soil, particularly micro-organisms (bacteria, fungi, actinomycetes, protozoans, arthropods), that amount to more than 95% of the biodiversity of the earth. The microflora in the soil affects the properties of the soil itself, fertility in particular. It is evident, therefore, the importance of adopting farming procedures that allow to preserve or even to increase the soil biodiversity and, more in general, all the soil properties, included the water holding capacity. This recall is to invite to think over that the food system sustainability, as well as the sustainability of a diet, is a very complex issue. The elements that contribute to define the concept of sustainability are many and very different among them: farming procedures, the use of energy from renewable sources, social values (work conditions, equality, costs), waste disposal and recycling, economical aspects, trade aspects, etc.. Consequently, the political choices and actions in this area involve different sectors (agriculture, environment, health, welfare, trade, international development, foreign affairs, industry, finance), each one of them bearing own interests that often do not go all in the same direction.

The MD is also characterized by its links to the food culture and tradition, to the food quality, specificity and typicality of the regions of the Mediterranean basin. Often these regions are characterized by small size farms, whose small productions can be exclusively or nearly sold on local markets and/or through specialized commercial channels. To transfer a food model is a very complex and delicate issue, because of the implications mentioned above. However, in regions where the ecosystem degradation and the loss of food biodiversity have heavily contributed to increase poverty and malnutrition, such as in Africa, the recovery of local food and traditional food systems could represent a fundamental step toward the improvement of the ecosystem and the standard of living of the local communities.

ALDO SOLDI
President, National Association Consumers Cooperatives - COOP

Coop is the most important brand in the large scale distribution sector in Italy (over 1,400 stores, 56,000 employees, more than 7 million members). Every choice that Coop decides to undertake both in terms of products (the mere gesture of adding and/or removing products from its shelves) and of strategy undoubtedly has repercussions on consumers, creating virtuous emulative circuits among consumers and competitors. Based on this aspect and also owing to its nature as a consumer organization in addition to being a commercial company, Coop is extremely careful and responsible in its conduct.
How does a leading distribution company meet its commitment toward protecting and respecting biodiversity? The following are some important data and examples. For Coop this means supporting and adopting all those production models, such as organic and integrated agriculture, that consume less natural resources and energy and which have a reduced environmental impact on natural habitats, helping to preserve them. Significant steps ahead have been made in this direction also based on the fact that those consuming organic products do not only consider these products more natural and healthy, but also consider their use as actively contributing to defending our planet also in small daily choices such as grocery shopping. For this reason, since last September, Coop relaunched its line that has always been named "Viviverde Coop" also including organically grown products. Since 1993, Coop has also included the "eco-logical" products, those non-food products obtained with environmentally compatible criteria including among others Coop products with the Eu Ecolabel.
The commitment for protecting and respecting biodiversity inevitably represents a complex goal that is carried out on many different sectors: from fishing to breeding, to enhancing specialty agricultural products. With regard to this latter aspect, it is sufficient to recall the support given to the Slow Food projects that led to Coop selling over 140 products of our agricultural and food tradition on its shelves in this way tracing a map of the outstanding Italian production. Regarding breeding, Coop participates in research projects for recovering and developing local cattle. Presently, Coop is the leading name for selling typical Italian meats, while for fish, it has been participating for some time in projects aiming at rendering utilized techniques more efficient and sustainable. In addition to these initiatives, Coop is also committed to guaranteeing its own Gmo-free brand products since GMOs in agriculture can cause the loss of agricultural biodiversity. Today, Coop is involved in supporting the battle for zero tolerance in seeds and in order for the principle of coexistence to eliminate contamination risks and added costs for Gmo-free, local and organic production processes.
For an entirely Italian leading distribution chain like Coop, this means supporting and encouraging the adoption of food consumer styles inspired on the Mediterranean diet that is actually a diet based on a wide variety of foods and nutritionally very healthy.
Lastly, the food for all concepts. Here too we would like to provide an example: the story is based on the string-beans from Burkina Faso that began thanks to Coop in 2005 and that led to a large international cooperation project with the participation of other bodies such as the UNIDO (United Nations Industrial Development Organization) in Vienna, one of the most important UN agencies. This agreement, that gives jobs to 8000 farmers in 24 villages, is considered as a model and an example of an agreement that does not provide assistance and does not "drug" the local economy with payments in kind and privileges, but lays the foundations for an actual autochthonous development.
For Coop this represents a successful example of fair trade, a model repeated for other products in other contexts.

GIUSEPPE MAIANI
Head, Diet and Human Nutrition Program, National Research Institute on Food and Nutrition (INRAN), Rome

The maintenance and improvement of public health is an important and urgent issue such as social and environmental issues. Nutrition, as known and almost accepted in scientific field, represents one of the most important aspects of health. Several researches have shown as the nutrition has a crucial role in prevention of food deficiencies, behavioral disorders, chronic diseases. This relationship could be connected to the content of nutrient and non nutrient, and so to the quality of foods.

Healthy dietary style effects are related to the overall diet quality. Dietary habits and dietary patterns are determined by economic, social and personal factors and by environment. Availability and access to a variety of foods have been identified as key elements together with psychological processes at individual and social levels and other factors that influence food choices such as culture, tradition, consumption modalities and cooking preparations.

Nowadays the great progress in technological processes, agricultural practices and so the changes in life style led up to take attention towards local foods as principal elements for food product quality improving and in the meantime supporting agro-biodiversity.

Appropriate farming based land use, protection of animal health and welfare, environmental conservation as linked to climate knowledge, soil quality and landscaping, lead to the improvement of product quality. Nutrition science should support sustainable ecosystems, ecological resources and healthy environments: nutrition and environmental sustainability are strictly linked through the food system.

In this context a new science is emerging, nutrition ecology from coalition between food, nutritional and environmental sciences. It has an important role in health promotion and prevention and it will contribute remarkably to a sustainable development.

The knowledge of the various environmental factors that contribute to the food quality across Europe will be important for assessing "optimal" diets for human health.

An optimal diet: - should afford an adequate contribution of nutrients to meet the metabolic requirements of individual and to give to consumer safety, quality and varied diet (crops, meat and sea food); - should be identified as a sustainable diet that supports an environment-friendly agriculture and food production system.

Mediterranean Diet appears as a valid model of sustainability from the health, environment and economic point of view, helping to support quality in food and in the meantime helping to promote sustainable resource management trough environmental sound farming systems linked to territorial characterization and to local cultural heritage.

MAURO GAMBONI
Head, Office for Planning Scientific and Technical Activity, Agrofood Department, National Research Council (CNR), Rome

One of the main challenges in the coming years is the fight against malnutrition. This is a phenomenon spreading both in industrialized and in emerging economies, where childhood obesity represents a serious public health problems of the 21st century. Several economic, social and individual factors pushed the demand towards food convenient but often unbalanced in terms of nutrition and without identity, so loosing the knowledge of how they are produced and prepared and resulting in a lack of awareness. The individual and social welfare depends on both the quantity and the quality of food, but also on the composition of the diet, on how the food is prepared and on eating habits. This is a very complex issue, beyond the intrinsic value of food and including individual and collective behaviors. The search for a healthy and fulfilling lifestyle involves a vision of food not limited to consider it as a set of nutrients only, but as an entity not simply described by the sum of its parts but also by recognizing its close linkage to the time and the space. There is also an essential relationship between food and environment. Production methods, transportation and conservation have evident environmental repercussions. This goes beyond the cited aspects of food related to the nutritional and behavioral aspects, but also includes natural resources saving, support for local and seasonal consumption, protection of biodiversity in all its manifestations, contrast to food homologation defending the diversity of traditions and local cultures. All of this leads to the concept of sustainable diet, which the Mediterranean diet seems to fully comply with. It is largely appreciated for its quality and can represent a replicable model for fostering "compatibility" between well-being, in its broadest meaning, nutritional needs and environmental protection. In this context, organic farming and products represent, by their nature, the point of excellence, offering a great opportunity to produce more food without compromising environmental quality, food quality, life quality of farmers and ensuring a close interaction between ecosystems and food production sectors. The scientific community is called to investigate these issues and to provide appropriate answers, developing new assessment methods capable to connect the concept of quality, in its broader meaning, and the systemic approach of sustainability. A variety of theoretical concepts is required (e.g. drawn from ecological economics, sustainability sciences and complexity sciences), as well as an interdisciplinary approach that combines basic sciences and applied ones such as agronomy, natural sciences, ecology, biology, food sciences, biochemistry, genetics. The knowledge in this field is therefore crucial, especially for giving scientific evidence to the inherent qualities and to the concept of sustainability associated to the Mediterranean diet. The National Research Council (CNR) network organized in the AgriFood Department can help to effectively respond to these questions. In two strategic lines adopted by the Department, the concerned research activities can be developed: the line "Food" and the line "Sustainable agriculture", relying on 19 nationwide research institutes, covering various topics in the agri-food sector and involving 600 units of established staff, including 360 researchers with permanent contract. To these, other 270 researchers with temporary contract or with fellowship have to be added.

SANDRO DERNINI
Forum on Mediterranean Food Cultures - Rome

The Mediterranean diet, understood as a lifestyle in continue evolution through time, is a complex system of shared knowledge related to food and people, a result of a particular environmental historical multifaceted geographic region. In the Mediterranean region there is a spread awareness of the social, cultural, health and economic dimension of 'food', shared by all Mediterranean people. The diversities of the Mediterranean food cultures as well as many elements of the Mediterranean diet are currently under the risk of extinction for the effects of globalization, the homogenization of lifestyles, the losing of awareness, meanings, understanding and appreciation, which lead to the erosion of the Mediterranean heritage and to the lack of interest among younger generations about their own heritage. The Mediterranean diet, recognised as one of the healthiest dietary pattern, through the variety of its food cultural heritage, is an unexplored resource in biodiversity and nutrition. The diversity of Mediterranean food cultures, expressed by the wide food variety of the Mediterranean diet, should be recognised as a resource for a sustainable development to be safeguarded and enhanced, in both industrialized and developing countries, to achieve good health and nutritional well being for all in the Mediterranean. It is necessary to refer more to a Mediterranean LIFESTYLE of which "diet" is only a part. It should include physical and social activity, recreation and rest. It may be possible to construct a Mediterranean food lifestyle index to assess such a holistic aspect, which could also include the diet score of 8-10 items which has been used successfully to correlate with improved morbidity & mortality. The current perception of the Mediterranean diet is focuses principally on its functional health benefits, related to the consumption of a balanced quantity of different nutrients, distributed within a pyramid structure, instead of being associated more to the everyday Mediterranean life style of eating and living, in which "food" has health, aesthetic, cultural, social and religious values - factors that should be perceived together for a nutritional well being and education renewal.

Towards the 2015 Expo of Milan Feeding the Planet-Energy for Life, in 2009, in Parma, Italy, it was organized by the CIISCAM-International Interuniversity Studies Centre on Mediterranean Food Cultures the conference "The Mediterranean Diet as a Model of Sustainable Diet". By addressing the Mediterranean diet as a cross-cutting sustainable development resource for the entire Mediterranean region, the conference had two purposes. The first, by taking into account the difficulty to achieve an updated Mediterranean diet's definition, was to produce a consensus position on a new revised Mediterranean diet pyramid representation, addressed to the Mediterranean peoples, with no copyright by anyone. This new pictorial representation was conceived as a simplified main frame to be adapted to different country specific variations related to the various geographical, socio-economic and cultural contexts of the Mediterranean region. The concepts of seasonality, of local products, of variety of colors for fruits and vegetables were introduced together with frugality, main meals, conviviality and physical activity. The second goal was to propose the Mediterranean diet as a model for sustainable diets, in which nutrition, local food productions, biodiversity, culture and sustainability were strongly connected together, with a low impact for the environment. The Mediterranean diet, based on a variety of local foods, strictly linked to the Mediterranean environment, was presented as a resource in biodiversity and nutrition toward global food security and sustainable

development as well as an intangible cultural heritage to be safeguarded and enhanced.

In early 80s, the notion of "sustainable diets" started to be explored to recommend diets healthier for the environment as well as for consumers. With the food globalization process and the increased industrialization of agricultural systems with no attention for the sustainability of the agro-foods ecosystems, the sustainable diet's concept was neglected for many years. Recently, the interest in sustainable diets again raised but, actually, there is no universally agreed definition of a 'sustainable diet.' The notion of a sustainable diet would have been curious a few hundred years ago, when people obtained the majority of their foods out of their ecosystems. Biodiversity was valued and utilized; ecosystems and agro-ecological zones produced the foods that they had produced for millennia. Traditional knowledge and practices ensured the conservation and sustainable use of food biodiversity within healthy ecosystems. Agriculture, diets, and nutrition have changed so dramatically in recent decades, that now, the concept of a sustainable diet seems novel. In their 1986 paper "Dietary guidelines for sustainability, Gussow and Clancy explored the notion of "sustainable diets", recommending foods to be consumed for both their nutrient contents and with respect for their ecosystems. With modern agriculture and globalization of foods, the concepts of the sustainable diet and human ecology have been neglected in favour of intensification and industrialization of agricultural systems. The outcome has been huge increases in global food production, but this has not led to global improvements in nutrition.

The complexity of many interdependent issues, within the radical transformation of the contemporary global scenario, requires a multicultural and multisectoral rethinking capable of generating new forms of dialogue, at different specialist levels, towards a wiser use of available human and natural resources. There is a need of new paradigms of reference for a holistic approach, with an effective direct participation of local communities.

The global scenery in which is placed the complex reality of the Mediterranean food cultures, with their interdependent issues, requires holistic ecosystems approach with new cross-cutting case studies on the Mediterranean sustainable diet, connecting the nutritional well-being of the individual as well as of the community to the sustainability of our living planet.

On the occasion of 'la Settimana della Biodiversità', organized by Bioversity International and the Comune di Roma, the Mediterranean Diet "Talk show" will explore the use of the TV format as a tool for a wider promotion of the global campaign "Diversity for Life".

With the onset of modern agriculture and food globalization, the concepts of sustainable diet and human ecology have been neglected in favour of the intensification and industrialization of agriculture production systems. The outcome has been a sizeable increase of global food production, but with no improvements at the global level of nutrition. It is currently estimated that the number of people suffering from hunger is now over 1 billion. During the "Talk show". the FAO on-line petition www.1billionhungry.org will be promoted. The petition aims at gathering 1 million signatures to be presented to the United Nations, next October, on the occasion of the World Food Day, with the purpose of sensitizing Governments from all over the World to take effective measures against hunger. In addition to the mentioned problems of undernutrition, other problems such as obesity and chronic diseases are also increasing. The alarming pace of food biodiversity loss and the deterioration of ecosystems call for a serious reconsideration of the sustainability of current agricultural systems and diets.

Why biodiversity? Biodiversity is one of the three pillars firmly supporting the pyramid of the Mediterranean Diet. It is closely linked and highly complementary to the other two pillars - cultural diversity and environmental diversity. Biodiversity is of strategic importance both at the species level and at the variety level. Interactions between the various species and the environment are also strategic. The strong erosion of biodiversity that is observed nowadays is threatening the very foundation of the Mediterranean Diet.

It is therefore, urgent to promote a sustainable Mediterranean diet, rich in a variety of local and seasonal products.

Diversity for Life. In May 2008, Bioversity International launched the campaign 'Diversity for Life' encouraging people to use agricultural biodiversity to improve their own nutrition, to guarantee the nourishment and adapt agriculture to climate changes and make it more sustainable.

DIVERSITY FOR LIFE is a global awareness campaign coordinated by Bioversity International to inspire people toward a new appreciation of agricultural biodiversity to improve their nutrition and to conserve the diversity of plants and animals that are so critical to food security.

Sign the petition to end hunger:
www.1billionhungry.org

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