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Mediterranean Green Chemistry Network, MEGREC
An Emerging Regional Symbol of Sustainable Chemistry
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Past interventions to sustainability, mostly caused by unintentional malpractice of chemistry application have been well documented in the world $B!G (Bs history. The bitter memories of Minamata in Japan and Bophal in India, are still lingering in human memory. Due to societal and environmental concerns, the emphasis is finally shifting to an increased emphasis on safe chemicals, minimum risks, resource management and pollution control. The attainment of sustainable development goals of initiatives, such as the Plan of Implementation of the World Summit on Sustainable Development (WSSD), requires political commitment to the application of viable tools for a systems approach. Green chemistry is a newly emerging subject that bestows significant momentum to sustainability, safety and allied concepts.

Sustainable chemistry could play a pivotal role in salvaging many of the ailing conditions that most of the developing world is subjected to. The use of solar energy, introduction of sustainable farming, recycling, and the implementation of $B!H (Blife cycle $B!I (B thinking as a management tool for the chronic issues such as municipal waste management, are just a few examples of how green chemistry can benefit developing communities. Green chemistry can also have a very strong impact on water sufficiency issues for countries where improving water resources is the most vital issue. It is through the implementation of cleaner production and the use of safe and biodegradable chemicals that a huge volume of wastewater could be reused to quench the growing demand for water in many of these countries.

The Mediterranean rim includes a large number of countries in Europe, Asia and Africa, with a total population of about 500 million inhabitants.

The Mediterranean covers an area of about 3 million km2. It is a semi-enclosed system, characterized by a large continental shelf surface (about 20%), a low average depth (ca. 1400m versus ca. 3850m of world $B!G (Bs other oceans) and extended continental shelves, especially in the Adriatic Sea.

Due to a variety of special traits that include demographic pressure, coastal morphology, freshwater inputs, and high temperature, the Mediterranean Sea is particularly susceptible to the impact of most pollutants introduced anthropogenically. Most of the Mediterranean coastal ecosystems are subjected to increasing anthropogenic impact. Pollutants are released in vast volumes in coastal areas often without adequate treatment or control. In addition, in the Mediterranean, the development of urban centres, agriculture and industry are often geographically interdependent. The result is that the pollutants, generally collected by

rivers, are concentrated along limited coastal areas, thus increasing their negative consequences.

With such prevailing conditions, a number of scientists from the Mediterranean region developed the idea for the Mediterranean Green Chemistry Network (MEGREC) as a regional organization that would promote the concept of green chemistry in the rim. MEGREC was established in 2005 under the auspices of UNESCO with Egypt, Greece, Italy, Morocco, Serbia and Montenegro, and Spain as the founder countries. Professor P Tundo, the current representative for Italy, is one of the leading figures of green chemistry and the current chair of the MEGREC. In 2006, both Algeria and Tunisia have joined in. Further requests to join in are currently being processed (see www.megrec.org).

MEGREC has been established to support the research process, teaching and training activities and public understanding of green chemistry and to encourage the adoption of green chemistry by industry. The contribution of regional organization in promoting clean technology and sustainable science has proven indispensable in the four corners of the globe.

The mission of MEGREC is manifold and includes the following objectives:

o To promote awareness of green chemistry among Mediterranean countries.

o To increase the effectiveness and efficiency of the research process and teaching and training activities of green chemistry in the Mediterranean region.

o To communicate with public and private institutions in and outside the

Mediterranean region in order to more widely disseminate green chemistry principles and applications.

o To promote the creation of laboratories and centers of excellence oriented to

the application of green chemistry.

o To promote the organization of workshops, seminars, publication of books and other possible dissemination tools that help to spread the concept of green chemistry.

o To promote the industrial application of green chemistry principles.

o To encourage and promote the establishment of new centers of excellence and laboratories specializing in green chemistry in Mediterranean countries $B!G (B institutes.

o To incorporate green chemistry principles and practices into all higher

education curricula.

o To strive for providing the appropriate green chemistry enriching media that help researchers and interested parties involved in the field.

The application of green chemistry is most likely to make a positive impact in the Mediterranean countries

if it is incorporated in selected development programs which target key areas such as industrial processing, energy development, food production, waste management and, especially ,education. Given the effluent discharge from the vast number of rivers and other water sources that end up in the Mediterranean, the application of green chemistry can also have some significant contribution to improving the quality of life throughout the region.

MEGREC complements the work of other organizations and networks in the area of green chemistry.

It is a main objective of MEGREC to have a full representation of all Mediterranean countries, as an elemental step for further dissemination and diffusion of the principals set by MEGREC charter with global community at large.