

SUSTAINABLE MEDITERRANEAN

MEDITERRANEE DURABLE • ΒΙΩΣΙΜΗ ΜΕΣΟΓΕΙΟΣ • MEDITERRANEO SOSTENIBILE المتوسطة المستدامة



THE COLLECTIVE ACHIEVEMENTS OF EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD) IN HIGHER EDUCATION IN THE MEDITERRANEAN

...

LES RÉALISATIONS COLLECTIVES DE L'ÉDUCATION POUR LE DÉVELOPPEMENT DURABLE (EDD) DANS L'ENSEIGNEMENT SUPÉRIEUR EN MÉDITERRANÉE

Quarterly newsletter produced
by the **Mediterranean
Information Office** for the
Environment, Culture and
**Sustainable
Development**, in collaboration
with the **European
Environmental Bureau** and the
**Arab NGO Network for
Environment and Development**

Issue: No **70**
Issue No 70, 01/2014

This issue of Sustainable Mediterranean
was financed by **MIO-ECSD** with the
support of the **European Commission**



This special issue of “Sustainable Mediterranean” which is devoted to the collective achievements of Education for Sustainable Development (ESD) in the Mediterranean, with particular emphasis on ESD activities related to Higher Education (HE) in the region, is meant as an input to the works of the Nagoya Conference that celebrates the end the **UN Decade on Education for Sustainable Development** (DESD, 2005-2014) and its follow-up, the Global Action Programme on ESD.

The Mediterranean has been in the forefront in the conceptualization and introduction of ESD with champion Higher Education Institutions (HEIs) and NGOs. The two milestone UNESCO meetings for its introduction (regional workshop “Reorienting Environmental Education for Sustainable Development”, Athens, June 1995; International Conference “Environment and Society: Education and Public Awareness for Sustainability”, Thessaloniki, December 1997) were organised by UNESCO, MIO-ECSDE and the University of Athens with the support of the Government of Greece.

The same partners established in Johannesburg in 2002 the Mediterranean Education Initiative for Environment and Sustainability (MEDIES), an initiative that links today more than 5,000 educators interested on ESD. As a consequence, ESD introduction and implementation in the Mediterranean region was, in general, successful but undoubtedly “uneven”, with considerable variation in the depth of interventions and the impact obtained in its different sub-regions and countries, particularly as it concerns HEIs.

The overall process has followed two paths: a) a regional one which has involved Governments, IGOs, HEIs, NGOs and other stakeholders. In this process, which is the main focus of the present issue, the UNESCO Chair of the University of Athens on Sustainable Development Management and Education in the Mediterranean and MIO-ECSDE have played an important role; b) the national pathways, developed in various ways by the Governments, HEIs and other stakeholders active, mostly, at national and local level.

Despite practical difficulties and shortcomings, ESD was well received and properly understood in the region as a natural evolution of the well rooted in the Mediterranean countries, Environmental Education as a type of education that on the one hand, integrates the principles of “quality education” and Education For All (EFA) and, on the other, conveys effectively the aspirations, objectives and tools for the promotion of Sustainable Development in formal, non-formal and informal learning.

The Mediterranean is not a UN Region, though it is recognised as an eco-region. Since more than half of the Mediterranean countries belong to the UNECE region it is normal that their policies were interlinked and influenced by the pioneering **UNECE Strategy on ESD** adopted in 2005 in Vilnius, in the drafting of which experts from Mediterranean HEIs have played a decisive role. The Strategy has provided a flexible framework for the coun-

tries in the UNECE region to integrate ESD into all forms and levels of their education systems, including HE, by adapting it according to national needs and priorities. Though the UNECE Strategy was helpful, it didn't cover the entire Mediterranean region and its institutions.

The Mediterranean throughout its millennia old history has been not only a north-south interface but, also an important cradle of Education, as well as the recipient of multiple geopolitical, socioeconomic and environmental pressures (from all kinds of conflicts to overpopulation, consumerism, urban expansion, water scarcity, etc.). The region faces today multiple crises: socio-political, environmental, economic, and cultural; it has low productivity and high youth unemployment rates, while its natural capital (including the ecosystems' services) is eroded. Education and ESD in particular, is perhaps, the only safe, no-regret investment to address these crises, improve governance and promote the better understanding and cooperation at regional level. It became, obvious and recognised formally, in 2005, during the adoption of the Mediterranean Strategy for Sustainable Development (MSSD), that an appropriate regional framework was needed to stimulate ESD at all levels.

The UNESCO Chair of UoA and MIO-ECSDE/ MEDIES have been instrumental in the drafting of the **Mediterranean Strategy on ESD** negotiated and finalised with the support of the Horizon 2020 programme and endorsed in Athens, in May 2014, by the 43 Ministers of Environment of the Union for the Mediterranean (see p. 18).

The holistic, inclusive and interdisciplinary character of ESD, its innovative participatory methods and its value-based approaches have inspired many projects undertaken throughout the Mediterranean by educational agencies, Universities, schools, NGOs, etc., during this Decade, as solo entities, but also as interdisciplinary coalitions and partnerships. This is a significant legacy of the Decade, particularly important for the region, which will keep giving birth to new activities and co-operations in the post 2014 era.

Amongst them, the tertiary sector has played a vital role in promoting ESD, SD and “the Whole Institute Approach” in HEIs, starting from International and Regional Networks such as the MedUnNET, SDSN, and the Copernicus Alliance, to initiatives such as the “solid” ESD integration in the Mohamed V University or the “Charter of Sustainability of Greek Universities”, to exploiting distance ESD learning e.g. in the University of Bordeaux, up to the RUCAS Project coordinated by the University of Crete and the Post-Graduate summer school on “ESD in Biosphere Reserves and Protected Areas”).

Several of the above initiatives were reviewed in the recent Mediterranean Expert Group Meeting invited by the Government of Gibraltar, which graciously supported also the present special issue aiming to gather and highlight some of the best practices and ESD initiatives related to HE in the Mediterranean region, which pave the way for a productive and stimulating post-2014 period.

Ce numéro spécial de «Sustainable Mediterranean», qui est consacré aux réalisations collectives de l'Éducation au développement durable (EDD) en Méditerranée, et met l'accent sur les activités EDD dans les Hautes écoles (HE) de la région, se veut une contribution aux travaux de la Conférence de Nagoya qui marque la fin de la **Décennie des Nations Unies pour l'Éducation au développement durable** (DEDD, 2005-2014) et son prolongement, le Programme d'Action Global pour l'EDD.

La Méditerranée a été au premier rang pour la conceptualisation et l'introduction de l'EDD, avec pour fers de lances les Hautes Écoles (HE) et les ONG. Les deux conférences clés de l'UNESCO pour l'introduction de l'EDD (l'atelier régional sur la «Réorientation de l'éducation environnementale pour un développement durable», Athènes, 1995; la Conférence internationale sur «Environnement et société: éducation et sensibilisation du public à la durabilité», Thessalonique, 1997) ont été organisées par l'UNESCO, MIO-ECSDE et l'Université d'Athènes avec l'aide du gouvernement grec.

Ces mêmes partenaires ont lancé à Johannesburg en 2002 l'Initiative méditerranéenne pour l'Éducation à l'environnement et à la durabilité (MEDIES). Cette initiative réunit aujourd'hui plus de 5,000 éducateurs intéressés à l'EDD. Cela a permis que l'introduction et la mise en place de l'EDD dans la région méditerranéenne a été, en général, couronnée de succès, mais aussi sans aucun doute «inégalement», avec des variations considérables dans la profondeur des interventions et l'impact obtenu dans les différents pays, particulièrement en ce qui concerne les HE.

Le processus global a suivi deux voies: a) une voie *régionale* impliquant les gouvernements, les organisations intergouvernementales, les HE, les ONG et autres partenaires. Lors de ce processus, qui est le point principal du présent numéro, la Chaire UNESCO de l'université d'Athènes pour le Développement, la Gestion et l'Éducation durables en Méditerranée et le MIO-ECSDE ont joué un rôle important; b) des voies *nationales*, développés de façons variées par les gouvernements des pays, par les HE et par d'autres partenaires.

En dépit des difficultés pratiques et de ses défauts, sur le plan conceptuel, l'EDD a été bien reçue et bien comprise dans la région comme une évolution naturelle des pays bien enracinés en Méditerranée, et l'éducation environnementale comme un type d'éducation qui d'un côté, intègre les principes d'une «éducation de qualité» et d'une Éducation pour tous, et, d'autre part, traduit les aspirations du développement durable dans l'apprentissage formel, non formel et informel.

La Méditerranée n'est pas une région au sens des Nations Unies, bien qu'elle soit reconnue comme une éco-région. Du fait que plus de la moitié des pays méditerranéens appartiennent formellement à la Région UNECE, il est normal que leurs politiques aient été liées et influencées par la **Stratégie en matière d'EDD de l'UNECE** adoptée en 2005 à Vilnius, pour l'élaboration de laquelle ils ont joué un rôle très actif et décisif. Cette Stratégie a fourni un cadre flexible pour que les pays de la Région UNECE intègrent l'EDD dans tous les niveaux des systèmes éducatifs. Bien que la Stratégie UNECE

ait été porteuse d'espoirs pour plusieurs pays méditerranéens, elle n'a pas couvert toute la région et ses institutions.

L'on sait bien que la Méditerranée, malgré son histoire millénaire, a été non seulement une interface nord-sud, mais aussi, d'une part, un berceau très important pour l'éducation, et d'autre part, qu'elle a subi de multiples pressions géopolitiques, socio-économiques et environnementales (des conflits de toutes sortes à la surpopulation, au consumérisme, à l'expansion urbaines, à la raréfaction de l'eau, etc.). La région doit faire face à des crises multiples: socio-politiques, environnementales, économiques, et culturelles; elle connaît une faible productivité et un taux de chômage élevé, alors que son capital naturel (y compris les services des écosystèmes) s'érode. L'éducation, et l'EDD en particulier, est peut-être le seul investissement sûr et sans-regret pour faire face à ces crises, pour renforcer la gouvernance dans ces pays et promouvoir une meilleure compréhension et une meilleure collaboration au niveau régional. Il est ainsi apparu clairement et cela a été reconnu formellement, en 2005, lors de l'adoption de la Stratégie méditerranéenne pour le développement durable (MSSD), qu'un cadre régional approprié en matière d'EDD était nécessaire.

La Chaire UNESCO de l'université d'Athènes et le MIO-ECSDE/MEDIES ont été l'instrument pour élaborer la **Stratégie méditerranéenne en matière d'EDD** qui a été négociée et finalisée avec l'aide du programme Horizon 2020 et officiellement confiée à Athènes, en mai 2014.

Comme mentionné, le caractère holistique, global et interdisciplinaire de l'EDD, ses méthodes participatives novatrices et ses approches reposant sur la valeur ont inspiré plusieurs initiatives et projets à travers toute la Méditerranée pris en charge par des institutions éducatives, des universités, des écoles, des ONG, etc., au cours de cette décennie, soit seules, soit en partenariats ou associations interdisciplinaires. C'est un héritage important de la Décennie, tout particulièrement pour la région, qui continuera de donner naissance à de nouvelles activités et coopérations après 2014.

Parmi ces dernières, le secteur tertiaire a joué un rôle vital dans la promotion de l'EDD, du développement durable et de l'«Approche institutionnelle intégrée» dans les HE de la région, à commencer par des réseaux internationaux et régionaux comme MedUnNET, SDSN, et l'Alliance Copernicus, jusqu'à des initiatives comme l'intégration de l'EDD à l'université Mohamed V ou la «Charte de durabilité des universités grecques», pour exploiter l'enseignement de l'EDD à distance, par ex. avec l'université de Bordeaux, et jusqu'au projet RUCAS coordonné par l'université de Crète, et l'école d'été post-grade sur le thème «EDD dans les réserves et les zones protégées de la biosphère» complétée par les ressources imprimées adéquates exhaustives.

Quelques-unes des initiatives ci-dessus ont fait l'objet de rapports lors de la Réunion du groupe d'experts méditerranéen sur le DD dans l'éducation supérieure qui a eu lieu récemment à l'invitation du gouvernement de Gibraltar, qui a également gracieusement soutenu ce numéro spécial afin de partager et de mettre en lumière quelques-unes des meilleures pratiques et initiatives EDD liées au HE dans la région méditerranéenne, entreprises dans le cadre de l'UNDESD, et qui préparent la post-2014 période.

Statement from the Union for the Mediterranean (UfM)

Higher Education and Research, together with Sustainable Development, are founding pillars of the Euro-Mediterranean cooperation. With a view to promote joint actions and projects in education, considered a prerequisite for achieving human development and a tool for good governance, the Mediterranean Strategy on Education for Sustainable Development (MSESD) was recently approved by the 43 countries of the Union for the Mediterranean, within the joint declaration of the UfM Ministerial Meeting on Environment and Climate Change held in May 2014.

On that occasion, Ministers recognized the importance of equipping people with knowledge of and skills in sustainable development through formal, non-formal and informal learning. The UfM Secretariat was called to promote, implement, monitor and report on the progress in the implementation of the MSESD. Standing as a platform of cooperation for Euro-Mediterranean stakeholders and as catalyzer of concrete regional projects, the UfM Secretariat is committed to support relevant upcoming initiatives addressing Education for Sustainable Development within the wider objective to advance towards a Euro-Mediterranean Higher Education Area.

Prof. Ilan Chet, UfM Deputy Secretary General in charge of Higher Education and Research & Mr Naser Tahboub, UfM Deputy Secretary General in charge of Environment and Water

Déclaration de l'Union pour la Méditerranée (UpM)

L'éducation supérieure et la recherche, avec le développement durable, sont les piliers fondateurs de la coopération euro-méditerranéenne. Visant à promouvoir des actions et des projets liés dans le domaine de l'éducation, qui est considérée comme un prérequis pour parfaire le développement de l'homme et un outil pour une bonne gouvernance, la Stratégie méditerranéenne en matière d'éducation au développement durable (MSESD) a été récemment approuvée par les 43 pays de l'Union pour la Méditerranée, dans la déclaration commune de la Réunion ministérielle de l'UpM sur l'environnement et le changement climatique qui a eu lieu en mai 2014.

À cette occasion, les ministres ont reconnu l'importance de fournir au public des connaissances et des compétences en matière de développement durable au travers de l'apprentissage formel, non formel et informel. Le Secrétariat de l'UpM a été invité à promouvoir, mettre en place, suivre et rapporter les progrès obtenus dans la mise en place de la MSESD. Fonctionnant comme une plateforme de coopération pour les partenaires euro-méditerranéens et comme catalyseur pour des projets régionaux concrets, le Secrétariat de l'UpM a été chargé d'aider les initiatives pertinentes à venir s'occupant d'éducation au développement durable dans le cadre de l'objectif plus large visant à créer une zone d'éducation supérieure euro-méditerranéenne.

Prof. Ilan Chet, Secrétaire général délégué de l'UpM chargé de l'éducation supérieure et de la recherche & M. Naser Tahboub, Secrétaire général délégué de l'UpM chargé de l'environnement et de l'eau

MESSAGE

By the host of the Mediterranean Expert Group Meeting on Sustainable Development in Higher Education

Dr John Cortes, Minister for Health and the Environment
H.M. GOVERNMENT OF GIBRALTAR



It was my privilege recently, on behalf of Her Majesty's Government of Gibraltar, to host a meeting of the Expert Group on sustainability through higher education in the small, but iconic corner of the Mediterranean from where I am writing these words.

The Rock of Gibraltar almost defines the western beginning of the Mediterranean. Its history is rich and cosmopolitan, like so much else around its shores, and research into its prehistory in particular is becoming increasingly recognised as making a significant contribution to the knowledge of our ancient past.

As it was for the Neanderthals, the Mediterranean, as we all know, is a special place for us who live around its shores, but also for those who visit and interact with this environment. Ecologically, as a complex of unique ecosystems, and as a staging post in migration, it makes a significant contribution beyond its immediate boundaries, much as historically it has had a huge influence on the history of a world beyond its shores. This is recognised by multiple policy and legislative frameworks that support the protection of its environment and biodiversity as well as enhancement of the quality of life of people in the region.

The Government of Gibraltar has made sustainability a key element in all of its policies. Thus we have for exam-

ple increased the size of our protected areas, embarked on habitat creation and replenishment of lost biodiversity, and we are embarking on projects to reduce pollution and utilise the sea and the sun for generating our energy.

The recent meeting in Gibraltar was significant. It showed once again the importance of having Mediterranean partnership platforms, United Nations agencies, and others working closely together.

The meeting acknowledged key agreements and sub-regional partnerships that operate in the Mediterranean including the Strategy on Environment and Sustainable Development and the recently agreed Mediterranean Strategy on Education for sustainable development.

I encouraged the Expert Group to recognise the pressures on the environment but also the disparities in wealth, health and quality of life across the region.

Most importantly, the Expert Group focused on the unique and significant contribution that Higher Education can, and will make to the sustainable development of the Mediterranean.

For its own part, Gibraltar will open its new University in September 2015, and is committed to ensuring that the concept of sustainability runs as a theme through its programmes.

The importance of Higher Education in making ESD an integral part of the thinking not just of current and future scientists and educators, but crucially of decision makers, is critical to the success of our Region and the world beyond.

CONTENTS

HIGHER EDUCATION INITIATIVES IN ESD	6	MISCELLANEOUS MEDITERRANEAN NEWS	18
<ul style="list-style-type: none"> • THE OUTCOMES OF THE MEDITERRANEAN EXPERT GROUP MEETING ON SUSTAINABLE DEVELOPMENT IN HIGHER EDUCATION, GIBRALTAR, 28-29 JULY 2014, PROF. DANIELLA TILBURY & PROF. MICHAEL SCULLOS • THE NETWORK OF MEDITERRANEAN UNIVERSITIES FOR SD WITH EMPHASIS ON ESD (MEDUNNET), AND ITS RECENT ACTIVITIES PROF. MICHAEL SCULLOS • THE UN SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK (SDSN): MED SOLUTIONS MEDITERRANEAN NETWORK, PROF. ANGELO RICCABONI • THE COPERNICUS ALLIANCE OF UNIVERSITIES FOR SUSTAINABLE DEVELOPMENT, PROF. DANIELLA TILBURY • TWELVE YEARS OF THE COMMISSION ON ENVIRONMENTAL QUALITY, SUSTAINABLE DEVELOPMENT AND RISK PREVENTION (CADEP) OF THE SPANISH UNIVERSITIES RECTORS CONFERENCE (CRUE), PROF. FERNANDO GALVÁN REULA & PROF. JAVIER BENAYAS DEL ALAMO • THE EMUNI EURO-MEDITERRANEAN UNIVERSITY • THE UNIMED MEDITERRANEAN UNIVERSITIES UNION • L'ÉDUCATION POUR LE DÉVELOPPEMENT DURABLE DANS L'ENSEIGNEMENT SUPÉRIEUR AU MAROC: CAS DE L'UNIVERSITÉ MOHAMED V SOUISSI, PROF. MOHAMED FTOUHI • ICTS, OPEN COURSES AND MOOCS: IMPLICATIONS FOR HIGHER EDUCATION, PROF. MICHEL RICARD • UNIVERSITY EDUCATORS FOR SUSTAINABLE DEVELOPMENT (UE4SD), PROF. DANIELLA TILBURY & DR ALEX RYAN 	6 7 8 9 10 12 12 13 15 16	<ul style="list-style-type: none"> • MEDITERRANEAN STRATEGY ON ESD ENDORSED • THE "GOVERNANCE & FINANCING FOR THE MEDITERRANEAN WATER SECTOR" PROJECT: SUCCESSFUL COMPLETION OF THE NATIONAL DIALOGUES IN JORDAN AND TUNISIA • SUMMER SCHOOL ON ESD IN BIOSPHERE RESERVES AND OTHER PROTECTED AREAS • MIO-ECSDE/MEDIES AT THE COPERNICUS ALLIANCE CONFERENCE • NON CONVENTIONAL WATER RESOURCES PROGRAMME IN THE MEDITERRANEAN • THE MARLISCO EXHIBITION IN GREECE • ANNOUNCEMENT: MEDITERRANEAN WIDE YOUTH SURVEY ON THE CONCEPT OF SUSTAINABLE DEVELOPMENT 	18 18 19 20 20 21 22
		PUBLICATIONS	22
		<ul style="list-style-type: none"> • EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD) IN BIOSPHERES RESERVES AND OTHER DESIGNATED AREAS: A RESOURCE BOOK FOR EDUCATORS IN SOUTH-EASTERN EUROPE AND THE MEDITERRANEAN • THE GIFT OF RAIN: ESD MATERIAL ON RAIN WATER HARVESTING IN GREEK LANGUAGE REACHED ITS 3RD EDITION • ALTER AQUA: EDUCATIONAL MATERIAL ON NON CONVENTIONAL WATER RESOURCES IN MALTA • EDUCATIONAL MATERIAL ON NON CONVENTIONAL WATER RESOURCES IN CYPRUS • KNOW FEEL ACT! TO STOP MARINE LITTER: LESSON PLANS AND ACTIVITIES FOR MIDDLE LEVEL STUDENTS 	

The designations employed and the statements and articles included in this publication do not imply the expression of any opinion whatsoever on the part of MIO-ECSDE concerning the legal status of any territory, city or area or of its authorities. The views and opinions expressed in this publication by individual contributors do not necessarily reflect those of MIO-ECSDE or those of our sponsors.



Group photo from the Expert Group Meeting in Gibraltar, 27-28 July 2014 (read more p. 6).



Snapshot from the summer school on ESD for post graduate students (read more p. 19).

HIGHER EDUCATION INITIATIVES IN ESD

GIBRALTAR HOSTS AN EXPERT GROUP MEETING ON HIGHER EDUCATION FOR SUSTAINABLE DEVELOPMENT IN THE MEDITERRANEAN

Prof. Daniella Tilbury & Prof. Michael Scoullios, Expert Group meeting conveners

The Mediterranean is a special place for those who live around its shores but also for those who visit and interact with this environment. As an ecosystem, it makes a significant contribution beyond its immediate boundaries. This is recognised by multiple policy and legislative frameworks that support the protection of its environment and biodiversity as well as enhancement of quality of life of people in the region.

The Gibraltar Government hosted an Expert Group meeting on Higher Education for Sustainable Development in the Mediterranean on the 28-29th July 2014. Over 20 experts from across Northern and Southern Mediterranean countries including Italy, Gibraltar, Greece, Malta, Monaco, Morocco, Portugal, Spain and Tunisia were present. Representatives from UN agencies including UNESCO, UNECE and UNEP, with responsibilities for Higher Education (HE) and Sustainable Development in the region attended.

The Meeting was opened by the Hon Dr John Cortes, Minister for Environment and Health HM Government of Gibraltar, who asked experts to recognise that the Mediterranean is a special place for those who live around its shores but also for those who visit and interact with this environment. Experts considered the multiple policy and legislative frameworks that support the protection of its environment and biodiversity, as well as the sustainable development of the Mediterranean. They were asked to draft an Action Plan for HE collaboration across the region. Building upon three key strategic frameworks:

- the United Nations Economic Council for Europe (UNECE) ESD Strategy, which is "mature" accompanied with sets of tools (indicators, educators competences etc) attached and tested;
- the Mediterranean Strategy for ESD (MSESD), a "daughter" of the above, just endorsed by the 43 Ministers of the UfM. Currently the Action Plan for the implementation of MSESD is in cooperation under the guidance of the UfM Secretariat; and
- the Mediterranean Strategy for Sustainable Development (MSSD), under the Barcelona Convention, the second phase of which is currently under consultation.

The draft **Action Plan for Higher Education for Sustainable Development in the Mediterranean** will recognise the pressures this environment is under given tourism, agriculture, trade and other economic activities as well as the disparities in wealth, opportunities for development and quality of life across the region. It will acknowledge

that HE has a unique and significant contribution to make to the sustainable development of the Mediterranean.

The Action Plan will identify key priority actions and partnership platforms to progress these within realistic timeframes. It will recognise that the region is changing rapidly and that there is an urgency to build North-South and East-West collaboration of HEIs across the Mediterranean. Co-ownership and co-decision making are seen as pre-requisites for the partnership pathways proposed in the documents.

Those drafting the Action Plan identified key actions and supported the extension of UE4SD project (see p. 16) across the region and exchange of experiences with relevant NGOs and Universities. Engaging civil society in the planning and delivery of the action plan was seen as key to its success. Experts present recognised the importance of NGOs, in particular, in helping re-orient the curriculum towards SD in Universities. The Action Plan also acknowledges the need to align this important document with the recently endorsed MSES.

The document is underpinned by a vision of change that is participatory, culturally inclusive and transformative. It recognises that currently, HE for Sustainable Development is dependent on single visionary rectors, professors, managers rather than being an integral part of strategy or leadership. Leadership development is highlighted as a critical action point for the Mediterranean.

Underpinning the draft Action Plan is a view that for HE to make a genuine contribution to transforming communities and society towards sustainable development, it must transform itself first. This is a key principle of the Rio+20 Higher Education Treaty on Sustainability and one that has already been endorsed by over 140 universities. This transformative process is a complex one and experts at the meeting recognised that it must take place in a culturally relevant and connected way. A list of indicators will be developed to support the Action Plan and monitor sustainability and ESD performances of HEIs. These will be informed by the experiences of Spanish CRUE and Latin American ARIUSA initiative.

The draft Action Plan will be shared with stakeholders in Nagoya at the UN Summit on Higher Education for Sustainable Development (November 2014) and at the UNECE Ministerial meeting (May 2015). These consultations will serve to refine the actions and extend the partnership beyond those attending this initial expert group meeting. There are plans for a future meeting to finalise and launch the Action Plan in July 2015.

THE NETWORK OF MEDITERRANEAN UNIVERSITIES FOR SD WITH EMPHASIS ON ESD (MedUnNET)

By Prof. Michael Scoullios

UNESCO Chair for SD Management and Education in the Mediterranean, University of Athens
Chairman of the Greek National Committee for MAB/UNESCO

The Network of the Mediterranean Universities for Sustainable Development focusing on Education for Sustainable Development (MedUnNET) was officially launched in Athens, in November 2008. The network is comprised of a core of 20 member Universities from 15 countries involving more than 60 professors.

MedUnNet facilitates the integration of sustainable development in the Mediterranean universities: In this respect the Network, on one hand, creates the opportunities for synergies in the field of ESD, and on the other, organises capacity building activities for university staff on ESD. More particularly MedUnNet aims at:

- Developing the **competences** of the university staff regarding ESD.
- Promoting the **whole institute approach** in the Universities of the region.
- Providing a **forum** for consultation among Universities and key ESD stakeholders.
- Interacting actively with the **society** and particularly with NGOs, decision makers and the press by fully utilising the framework offered by the UNESCO Chair and MEDIES.
- Creating the opportunities for **synergy** of existing efforts for the promotion of ESD in HE in the region, and beyond).

The ultimate goal of the network is the creation of a joint Mediterranean **master course in ESD** among the partner universities.

The Network focuses on developing the competences of the university staff in implementing ESD in their courses by organising related seminars and trainings (Uppsala, 2008; Amfissa, 2010; Athens, 2011; Rabat, 2013; Amfissa, 2014; (see page 19) etc.) during which professors are trained by international experts in the background, principles and the pedagogies of ESD in higher education; are introduced in the concept of the sustainable university/whole of institute approach and its requirements; and, share experience and successful applied ESD practices. Since 2008, approx.500 university professors have been trained. The Network through its capacity building activities (seminars, workshops, etc.) focuses in developing the competences of educators, based on the relevant UNECE work, and in particular:

- (i) The **holistic approach** in the professors' teaching approaches, integrating the natural, social and economic parameters in their courses, connecting

the learners to their local and global spheres of influence, as well as highlighting the various players across places and disciplines

- (ii) **Envisioning change** from the unsustainable practices towards advancing quality of life, equity, solidarity, and environmental sustainability, starting from their own institute; and motivating students to make a positive contribution to their social and natural environment
- (iii) The **transformative pedagogy** starting by being the professor him/her self a facilitator and active participant in the learning process, applying learner-centred teaching methods, developing critical thinking and active citizenship and assessing the learning outcomes in terms of changes and achievements in relation to sustainable development.

MedUnNET serves also as an active platform for consultation among the universities and key ESD stakeholders. In this line, it has substantially contributed to the drafting process of the Mediterranean Strategy on ESD which was endorsed in May 2014 in Athens by the 48 Euro-Mediterranean Ministers for Environment (UfM). (see page 20)

The University of Athens/ UNESCO Chair on Sustainable Development Management and Education in the Mediterranean provides the host and the Scientific Secretariat of the Network, while MIO-ECSDE through the MEDIES network provides the Administrative Secretariat. The aforementioned Institutes support also financially its operation. UNESCO-BRESCE has supported the Network's activities since the beginning, while several activities (policy consultations, seminars, summer schools, etc.) have been funded by European Programmes (H2020 ENPI/MEP, ERASMUS, etc.) as well as governments and private donors (VEOLIA).

MedUnNET members

Agricultural University of Athens, Akdeniz University, Frederick University, La Sagesse University, National & Kapodistrian University of Athens, Panteion University of Social & Political Athens, Technical University of Catalonia, University of Agriculture of Tirana, University of Bordeaux 3, University of Cairo, University of Crete, University of Cyprus, University of Manouba, University Mohamed V Souissi, University of Padova, University of Peloponnesus, University of Primorska, University of Sarajevo, University of Tunis, University of Zagreb.

THE UN SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK (SDSN): MED SOLUTIONS MEDITERRANEAN NETWORK

By Prof. **Angelo Riccaboni**
Rector, University of Siena



The Sustainable Development Solutions Network (SDSN) is a collaborative network of academic and research institutions launched in August 2012 under the auspices of UN Secretary-General Ban Ki-moon to accelerate practical problem solving for sustainable development and to support the framing of the development objectives for the next two decades (tentatively referred to as Sustainable Development Goals). MED Solutions (UN SDSN Mediterranean) is SDSN in the Mediterranean region, coordinated by the University of Siena, Italy. MED Solutions mission is to promote and strengthen local and national problem solving for sustainable development by empowering universities, research centres, private companies, public institutions, NGOs and networks to play more active and effective roles in facing common challenges in the Mediterranean.

Our main activities in the area of ESD in higher education include two main components:

1. Innovation in teaching and localization

UNSDN Mediterranean promotes the collaboration of institutions in the region in the area of ESD by assisting them in developing and improving teaching materials and courses on sustainable development. This work is carried out in partnership with scholars at the University of Siena, which developed an onsite course on sustainability, as well as in conjunction with the online platform SDSN.EDU, with which we are exploring options for a MOOC focusing on sustainability in the Mediterranean. The onsite sustainability course is at its second edition, and is administered as an elective class held at the Department of Ecotoxicology and Environmental Sustainability of the University of Siena under the supervision of Prof. Simone Bastianoni. The rationale of the course is to facilitate the exchange of teaching and research materials from an integrated perspective, including biology, energy, global changes, ecology, waste management, green economy, and globalization. Its main purpose is to train students and educators (as well as all the other interested participants) to think in sustainability terms, in all senses.

In September 2015, the negotiation over the Sustainable Development Goals will be finalized. Until that date, one of the key priorities of our network will be to ensure that a Mediterranean perspective is adequately taken into account in all relevant documents and acts which

will be approved at the global level. We believe this is important not only as the post-2015 agenda will be part and parcel of the future in which we will all have to operate, but also consistently with our vision of the Mediterranean as a highly interconnected region characterized by economic growth, social inclusion and environmental sustainability.

2. Holistic research development

MED Solutions helps shape the research work of its 48 partners producing synergies aimed at identifying and promoting sustainable development solutions in the Mediterranean Region. In order to create momentum on the most cogent challenges facing all Mediterranean countries, we have chosen “Sustainable Agro-food Culture in the Post-2015 Era – From Tuscany to the Mediterranean Context” as the topic cluster of the Second International MED Solutions Conference, which will be held in Siena, Italy on March 5 and 6, 2015.

Agriculture and food will play a prominent role in the post-2015 agenda, for all countries in the Mediterranean and beyond. A sustainable development path for future food systems will require transformative changes in technologies, policies and behavior of all actors along the whole food chain. Many interventions are needed and not all can be done at once and in every country. Changing diets towards more healthy, less resource-intensive food is likely to be a slow, uneven process. On the supply side, a critical issue is to increase production on existing crop land by closing yield and efficiency gaps and thus utilizing natural resources more widely, but all this needs to be done in the context of meeting consumer demands for safe, high-quality food. Wide access to state of the art knowledge and technology is a prerequisite for achieving a sustainable intensification of agriculture.

Many of the solutions exist or could, with wise investments, become available in the next 10-20 years. The Mediterranean region has a long history of food production and food culture in an environment that presents many socioeconomic and biophysical challenges. New technologies and new business models for farming and food processing will need to play a major role in the region's future development. This conference will explore possible pathways and solutions for the region to become a showcase for sustainable agro-food culture, with responsible business development as a key driver for rural development and sustainable use of natural resources for high-quality food production.

For further general information on our network and how to join it please visit: www.medsolutions.unisi.it

THE COPERNICUS ALLIANCE OF UNIVERSITIES FOR HIGHER EDUCATION

By Prof. **Daniella Tilbury**, President, Copernicus Alliance
and Prof. **Clemens Mader**, Vice President, Copernicus Alliance



In July 2012, Secretary-General Ban Ki-moon announced a High-level Panel to advise on the identification of priorities and targets which will succeed the Millennium Development Goals (MDGs) which expire next year. This process, often referred to as the post-2015 dialogue is led by the UN and seeks to define a future global development framework. Lengthy and complex negotiations are taking place following a call by UN Members for open, inclusive consultations involving civil society, the private sector, academia and research institutions from all regions.

The MDGs are a set of eight global development targets. The Sustainable Development Goals which will now replace them will have a longer and more inclusive list of concerns. Education will continue to have its place in international efforts to attain sustainable development. The exact wording and ambition of this component of the goals is yet to be agreed, however.

These dialogues are taking place as the UN Decade in Education for Sustainable Development (DESD) comes to an end and a new Global Action Programme is being constructed. The third evaluation report of the DESD commissioned by UNESCO (UNESCO 2014) confirms how the engagement of higher education in the construction of a global vision and pathway for sustainable development is critical. It documents how the last ten years have witnessed higher education stepping up its efforts in this area. This period has seen the catalytic efforts of interagency approaches and significant government funding associated with the lowering of the carbon footprint of universities and colleges. This has been accompanied by and large-scale efforts to introduce sustainability into the curriculum and evidence suggests that universities and colleges 'have also understood the value of outreach activities in gaining trust amongst stakeholders and affirming higher education's role in social change for sustainability' (Tilbury 2014).

The report points to the scaling up of membership groups into more representative and higher profile regional and international networks that are brokering dialogue and change in the sector. It showcases an Ibero-

American higher education network established in 2007 which brings together 228 universities across 15 countries; one of many that have scaled up their membership or established new collaborations, giving momentum to higher education agendas within the sustainable development movement. (Tilbury 2014). This influence was evident on the road to Rio+20, where higher education colleges and universities could opt for accreditation to participate at this global gathering for the first time. This is a significant development which would have been seen as untenable ten years ago (Tilbury 2014). Equally, UN-facilitated initiatives such as the Global Universities Partnership on Environment and Sustainability (UNEP GUPES) and the Regional Centres of Expertise on Education for Sustainable Development (UNU RCE) have extended the reach of higher education sustainability initiatives across communities of practice, together reaching an additional 550 universities in the last ten years.

COPERNICUS Alliance is one of such networks - a European partnership of universities and colleges committed to transformational learning and change for sustainable development in HE. Working closely with strategic stakeholders, the Alliance seeks to inform HE policy developments, international initiatives (such as the Global Action Programme on ESD and UNECE ESD Competences) as well as support individual institutions in their efforts to lead change for sustainability.

The Rio+20 Treaty on Higher Education is an international initiative coordinated by COPERNICUS Alliance with the support of IAU and UNU. It presents the collective vision of HE networks, groups and institutions that are seeking to build more sustainable futures. It was developed through a lengthy collaborative process involving over 25 civil society and key experts on HE and sustainability and was launched in June 2012 at the Rio+20 Conference in Rio de Janeiro. The Treaty has over a 100 signatories from around the globe and calls for transformation across the higher education sector towards sustainable development. The Treaty features as an important implementation plan at the Nagoya Higher Education and ESD meeting scheduled for November 2014.

As the influence of these partnerships and treaties continues to grow, it is expected that they will stimulate further developments across the sector in coming years. The Global Action Programme on ESD should recognize their catalytic potential and mobilize support around these collaborative efforts and the Sustainable Development Goals monitor their reach and impact as they ripple changes across social groups and regions.

COPERNICUS Alliance has a long history and established reputation for its work in incentivising the HE sector in Europe to engage more effectively with the sustainability agenda. The Alliance finds its origins in 1993, when the European University Association acknowledging the critical role of universities in advancing Agenda 21 launched COPERNICUS CAMPUS and the CRE COPERNICUS Charta in Geneva. The Charta, which resides with the Alliance, has been endorsed by 326 European university rectors, vice-chancellors and presidents.

In 2010, COPERNICUS Alliance was launched as a network with the aim of bringing together signatories of the Charta and other organisations across Europe to rethink the role of HE and embed sustainability at the core of the European HE system.

In 2014, beside many local or regional initiatives, COPERNICUS Alliance members are collectively engaged in two key projects; the implementation of the Rio+20 Higher Education Treaty for Sustainable Development and the European Union Erasmus Project 'University Educators for Sustainable Development' (UE4SD).

References

- Tilbury, D. (2014) 'Education for Sustainability in Higher Education' Global Report Commissioned by UNESCO ESD Secretariat to inform the 3rd Global DESD Report. Jan. 2014.
- Rio+20 Higher Education Treaty (<http://hetreatyrio20.com>)
- UE4SD University Educators for Sustainable Development (www.ue4sd.eu).

daily practices that were unsustainable and which required deep transformations.

Another relevant study recently led by CADEP consists in the elaboration of an indicator system for the monitoring of the sustainability policies of Spanish universities (2012). This initiative, developed by the Sustainability Assessment Group, provides a questionnaire of 176 indicators, divided into four main areas (administration, teaching, research and management) and twelve analytic sections. As a summary of the results of this study, it was found out that the main advances and interventions were carried out in the area of campus management, and specifically in the activities related with raising an environmental awareness among the members of the university community. In particular, good practices were those aimed at the increase and diversification of green areas, the improvement of the management of toxic and dangerous wastes with further selective separation and disposal of general wastes, the implementation of new policies to promote a more sustainable transportation such as the use of bicycles, as well as the introduction of some measures to reduce energy consumption. To a lesser extent, specific programs were developed on the social responsibility of the institutions, the environmental impact assessment of university activities, the water management or the implementation of green purchase policies. This questionnaire has become no doubt a great help for Spanish universities in order to identify their weaknesses and shortcomings, so that they can define more clearly their policies and strategies committed to sustainability.

In 2014 this working group has been focusing on developing an interactive computer application that will allow all Spanish universities to directly complete the sustainability indicator system and thus obtain immediate results. So the application can be used by universities as a continuous self-evaluation tool in order to test their policies. Moreover, this system aims to reward those universities that fulfil more than 80% of the criteria by opting for a formal recognition of their high-level commitment towards sustainability. This app will soon be available on the CRUE website.

Another interesting development within CADEP working groups has consisted in the identification of good practices that could be used as a reference by other universities. This is particularly useful to those universi-

ties that are now beginning to apply sustainability policies on their campuses. In this regard, the Mobility & University Group is working on the identification and selection of good practices related to mobility and accessibility in Spanish universities. Also, the Group of Environmental Improvements of Buildings focused last year on the elaboration of a report containing proposals for the application of a Plan of Rationalization of the universities expenditure related to energy and natural resources consumption. But surely the most complete document, that includes a wide set of examples, is the evaluation report previously mentioned, which can be accessed at:

www.crue.org/Sostenibilidad/CADEP/Documents/Documentos/23.Fichas_de_buenas_practicas.pdf

This document contains up to fifty-two files developed by thirty-one Spanish universities; proposals are classified in twelve categories and comprise a diversity of issues, such as the implementation at university of an environmental management system ISO 14001, the implementation of management systems based on the Agenda 21 Framework, among others. There are also proposals for the integration of environmental criteria in the organization of events and meetings, for the creation of a symbiotic water treatment plant, for energy-saving in computer equipments or for the establishment of a bicycle exchange centre. As part of this large list, many practical proposals that have previously proved successful at some particular universities are presented.

Spanish universities also participate individually in the World Universities Ranking 'Greenmetric' with remarkable results. Six of them are positioned among the 100 best universities in the world, and two of them are on the top 25 (the University Alcalá and the Autonomous University of Madrid, ranked as 12th and 24th respectively). Regardless of these individual results, what really moves all these universities, since the establishment of the CADEP Commission, is working together in order to progress faster and achieve more ambitious goals. In this context, collaboration strategies are encouraged rather than competition, in order to set an example of sustainability by applying it also in the way we conduct our work. Such approach -we believe- is regarded by many as the main success of CADEP.

Read more: www.crue.org, www.crue.org/Sostenibilidad/CADEP

TWELVE YEARS OF THE COMMISSION FOR ENVIRONMENTAL QUALITY, SUSTAINABLE DEVELOPMENT AND RISK PREVENTION (CADEP) OF THE CONFERENCE OF RECTORS OF SPANISH UNIVERSITIES (CRUE)

By Prof. **Fernando Galván Reula**, CADEP/CRUE Chairman & Rector of the University of Alcalá and Prof. **Javier Benayas del Alamo**, CADEP/CRUE Executive Secretary & Vice Director of the INAECU Institute



Spain is nowadays facing, like other Mediterranean countries, a deep crisis. As a logical reaction to this, the question that arises is whether Spanish universities are leading the necessary changes to attain a more sustainable future. Spanish universities began their experiences in greening their campuses in the early 1990s. This initiative was very likely influenced by the results of the Rio 92 Summit. But the real driving force behind the generalised implementation of these changes was the establishment in 2002 of the Commission for Environmental Quality, Sustainable Development and Risk Prevention (CADEP) within the Conference of Rectors of Spanish Universities (CRUE). This institution encompasses 75 Spanish Universities, both public and private.

The main objectives of this Commission, which comprises nine working groups, were the strengthening of the environmental awareness and management of Spanish universities, in an attempt to minimize their impact on activities upon local and global environments. It was also intended to promote cooperation in order to exchange successful experiences, as well as coordination with other social actors, with the aim of promoting specific actions on campuses. The number of universities participating in this Commission has grown from 19 at the first meeting (2002) to approximately 40, that are now currently participating in the three-monthly meetings. Indeed, over 85% of Spanish universities have taken part, at some point, in these activities.

One of the actions most frequently carried out by this Commission has been the draft of institutional declarations on specific subjects like, for example, the declarations on the introduction of sustainability in curricula, on preventive culture or on sustainable procurement measures. But one of the most significant advances of the Commission is undoubtedly the involvement of the nine working groups in the design of specific studies aimed at assessing the commitments to sustainability of Spanish universities. Some of the most relevant reports focus on the incorporation of renewable energy infrastructures into Spanish universities (2008), on actions in favour of sustainable mobility in Spanish universities (2009) or more specifically, on the use and promotion of bicycles on campus (2011), on waste management (2010) or on the use and management of paper at the university (2011).

Perhaps the study which has had greater impact in the media was the report made in collaboration with the Energy Saving and Diversification Institute (IDEA), which included a thorough analysis of the evolution of electric consumption of Spanish universities. Such study proved that universities had reduced their consumption from 1,300 kwh/scholar in 2010 to less than 1,150 kwh/scholar in 2011. This implies a reduction of around 12% of the overall electric consumption of Spanish universities altogether, an amount which means a saving of 10 to 15 million euros. Although the global crisis is indeed contributing to develop and apply such energy-saving policies and resource consumption economic-efficiency policies in the management of universities, it is also helping some of them to initiate processes to rethink about their

THE EMUNI EURO-MEDITERRANEAN UNIVERSITY OF SLOVENIA

By Iro Alampai, MEDIES Secretariat



Established in the frame of the Declaration of the Paris Summit for the Mediterranean (July 2008), the EMUNI University is an international network of over 200 universities with headquarters in Slovenia. The main mission of the EMUNI University is to strengthen mutual understanding and intercultural dialogue among Euro-Mediterranean countries by implementing postgraduate study and research programmes, which will significantly contribute towards the development of Higher Education, Science and Research.

EMUNI is promoter of the UfM-labelled project, *Euro-Mediterranean Master and PhD programmes*. The project will be

implemented at Universities which are part of the EMUNI network and will contribute to the mobility of students, professors and researchers from both rims of the Mediterranean. The programmes will focus on priority topics or areas which have an important impact on the development of the Euro-Mediterranean region.

Since its establishment in 2008, the EMUNI University has become an international institution, which gathers expert knowledge and experience of the Euro-Mediterranean countries and thus contributes in a significant way to the creation of a unified, integrated Euro-Mediterranean higher education and research area.

Read more: www.emuni.si

THE UNIMED MEDITERRANEAN UNIVERSITIES UNION

By Iro Alampai, MEDIES Secretariat



UNIMED, Mediterranean Universities Union, founded in the early 1990s, is an Association of Universities from countries in the Euro-Mediterranean basin. UNIMED's main aim is to develop scientific and educational cooperation in the Euro-Mediterranean region, in order to contribute to the process of integration between the two Mediterranean shores. UNIMED collaborates with its network universities in several activities in different fields including among others tangible and intangible cultural heritage, economics, energy, environment, management of water

resources, transports, health, media, new technologies, history, agriculture, tourism. The image that represents the association better, is, in the founders' words "a University without walls".

UNIMED carries out activities such as promoting the international dimension of universities, fund raising, mobilising of academic staff and students in the Euro-Mediterranean region, providing technical assistance, establishing thematic sub-networks, organising national and international conferences, seminars, training of academic and administrative staff of universities.

In 2009 UNIMED launched MedArabNews, a webzine aiming to provide in-depth political, economic and social analysis relevant to the Mediterranean and the Arab worlds.

Read more: www.medarabnews.com, www.uni-med.net

L'ÉDUCATION POUR LE DÉVELOPPEMENT DURABLE DANS L'ENSEIGNEMENT SUPÉRIEUR AU MAROC: CAS DE L'UNIVERSITÉ MOHAMED V SOUISSI – RABAT

Prof. Mohamed Ftouhi, Université Mohamed V de Rabat

Introduction

Le Maroc a accordé, ces dernières années, une attention particulière à la question de l'environnement et du développement durable. Les pouvoirs publics ont élaboré en 2010 la Charte Nationale pour l'Environnement et du Développement Durable.

La nouvelle Constitution de 2011 consacre le «droit à un environnement sain» et accorde une importance particulière aux questions de la gestion de l'environnement, de la protection des ressources naturelles et du développement durable.

L'adhésion du Maroc, en tant que pays Méditerranéen dans le processus de la promotion de la décennie de l'éducation pour le développement durable était très remarquable. Ceci a été opérationnalisé au niveau de l'éducation non formelle, l'éducation informelle et l'éducation formelle et ce, depuis le primaire jusqu'à l'université.

Le cas de L'EDD à l'université Mohamed V

L'université Mohamed V Souissi & l'université Mohamed V - Agdal sont les deux universités qui constituent la mère du système national de l'enseignement supérieur au Maroc.

L'université Mohamed V dont le siège est localisé dans la capitale Rabat, est la plus ancienne université du Maroc. Sa création remonte à l'année 1957 (au lendemain de l'indépendance du pays). Elle a été divisée en 1992 en deux universités: Université Mohamed V Agdal & Université Mohamed V Souissi qui fait partie du réseau des universités Méditerranéennes impliquées dans la promotion de l'éducation pour le développement durable (Réseau initié par le MIO-ECSDE). Depuis la rentrée académique 2014-2015 les deux universités: Mohamed V Agdal et Mohamed V Souissi ont été regroupées, à nouveau dans une seule université: université Mohamed V de Rabat.

L'EDD au sein de l'université Mohamed V Souissi

Les thèmes en relation avec les objectifs de l'éducation pour le développement durable sont présents à l'université Mohamed V Souissi dans les activités d'enseignement, de recherche et des activités de rayonnement. Ils sont traités dans les sciences de l'ingénieur, les sciences médicales, les sciences sociales et juridiques & les sciences de l'éducation et ce, au niveau des filières Licence, licence professionnelle, master & doctorat.

Notons que la décennie des Nations-Unie consacrée à l'EDD ainsi que l'adhésion de l'université Mohamed V Souissi au Circle "MIO-ESDE des universités Méditerranéennes

impliquées dans la promotion des activités EDD" étaient deux facteurs importants pour introduire et renforcer les objectifs, les concepts et les procédés pédagogiques relatifs à l'EDD dans le système éducatif marocain en général, et au niveau de l'université Mohamed V Souissi en particulier.

A cet égard, cette université était active dans le processus de la préparation de RIO+20 au niveau national. Elle a joué également un rôle important dans la dissémination des principes de l'EDD dans d'autres universités marocaines (un atelier de formation Horizon 2020 était organisé sous le thème de l'EDD à l'université: Théories & pratiques à la Faculté des Sciences de l'éducation - université Mohamed V Souissi, et dont les bénéficiaires étaient composés des enseignants chercheurs et du staff administratif venant de plus de 10 universités marocaines / 23-24 avril 2013).

Les questions de l'environnement & du développement sont enseignés dans plusieurs établissements relevant de l'université Mohamed V de Rabat (*Faculté des Sciences, Faculté des Lettres & des Sciences Humaines, Faculté des Sciences de l'éducation, l'Institut Scientifique, l'Ecole Mohammédia d'Ingénieurs, Facultés des Sciences Juridiques, économiques et Sociales, Ecoles normales supérieures, ainsi que dans d'autres établissements de l'enseignements supérieurs non universitaires tels que l'Institut Agronomique & vétérinaire Hassan II, l'école forestière de Salé, l'école nationale de l'industrie minérale*).

Néanmoins, la dimension éducative de l'EDD, telle qu'elle a été définie par la littérature éducative spécialisée (UNESCO, ISESCO, Scoullou & autres) pose toujours un problème de confusion entre le savoir purement scientifique du Développement durable, répandu à une grande échelle dans la pratique universitaire actuelle et le savoir éducatif de l'EDD qui combine, selon une approche holistique la dimension pédagogique et la dimension scientifique des questions du développement durable.

Pour illustrer notre propos, on présente quelques exemples des questions relatives à l'EDD dans certaines formations au sein de l'université Mohamed V Souissi.

Exemple 1: L'EDD dans la Faculté des Sciences de l'Education

On trouve les concepts de l'EDD au niveau du Master "Didactique des Sciences Sociales & communication" et de l'école doctorale "Homme, Société & Education":

Les axes qui se recoupent avec les préoccupations de l'EDD au niveau du Master précité, notamment à travers la Didactique de la géographie sont l'eau, les déchets, le littoral, la biodiversité, l'énergie, les changements climatiques, le développement local, l'éducation relative à l'environnement & l'éducation pour le développement

durable, la communication sociétale et son application à l'environnement & au développement durable au niveau local, national et international.

La pratique pédagogique adoptée est axée sur une dimension environnementale, sociale, éthique, historique, scientifique, économique et politique, elle accorde une grande importance à la pratique sur le terrain. Les méthodes d'enseignement- Apprentissage utilisées sont des méthodes participatives fondées sur la recherche personnelle et le travail de groupes, ainsi que l' invitation des experts & des professionnels, l' étude de cas et les visites à des sites d'intérêts biologique, écologiques et culturels sont largement utilisées (Exemple Site Ramsar de Sidi Boughaba sur la cote Atlantique au nord de Rabat).

Cette pratique se base sur des cours interdisciplinaires d'éducation pour le développement durable, conçu pour explorer le concept du développement durable en tant que concept inhérent à une multitude de considérations globales et locales, intégrant les volets économiques, sociaux, environnementaux du développement durable.

Au niveau de la formation doctorale, on peut citer l'exemple du centre des études doctorales "CEDOC": Homme, Société & Education, notamment structure de recherche intitulée: *Education et Communication en matière de Population, Environnement & Développement* – GRECPED où l'EDD est présente à travers des éléments comme: les compétences relatives à la citoyenneté environnementale, l'éducation pour le développement durable, à partir de l'enseignement de la géographie.

Exemple 2: L'EDD dans l'école normale supérieur de l'enseignement technique-Université Mohamed V Souissi

La formation- recherche en lien avec l'EDD existe aussi dans les cursus de l'école Normale Supérieure de l'Enseignement Technique (ENSET) et ce, à travers la Licence Professionnelle: Traitement des Eaux et Gestion des Déchets Solides. Parmi Les modules qui se recoupent avec l'EDD dans cette formation sont:

- La chimie de l'eau et les techniques d'analyses et traitements des Eaux, les propriétés physiques de l'eau, L'eau dans la nature, les ressources hydriques naturelles. La pollution et l'utilisations de l'eau. Le Traitements physico-chimiques. Les techniques de séparations des impuretés, l'Efficacité des installations des traitements.

- Les techniques de Gestion et de Traitement des déchets solides: Les déchets ménagers, Industriels et Hospitaliers.
- Présentation des étudiants d'un rapport avec possibilité d'y inclure une composante sensibilisation & éducation liée aux questions de l'environnement & du développement durable.

Autres activités relatives à l'EDD au sein de l'Université Mohamed V Souissi

L'université Mohamed V Souissi a également contribué à la promotion de l'EDD à travers des activités de rayonnement, destinés au large public.

A cet égard des rencontres régulières de sensibilisation et d'échange sur les questions du DD, intitulé Green University et Forums de l'EDD ont été organisés mensuellement au cours de deux dernières années, et dont les bénéficiaires étaient composés des invités représentant des ONG, du média, des élus, de l'administration en plus des étudiants et des enseignants. Parmi les thèmes de ce Forums de rayonnement "université- milieu" on peut citer à titre d'exemples:

- le développement durable au Maroc: Quel est le rôle des valeurs de l'université, 4 juin 2012
- Le bilan du développement durable au Maroc: la transition vers l'économie verte, 28 février 2013
- la gestion des déchets au Maroc: Défis et Perspectives de développement durable, 11 octobre 2013
- La charte nationale de l'environnement et du développement durable, 27 février 2014
- La santé, l' environnement & le développement durable, 27 mars 2014
- Le Maroc & les changements climatiques, 22 avril 2014
- La gestion des ressources en eau au niveau du Bassin du Bouregreg et de la Chaouia, problématique et défis, 22 mai 2014.

Avec le fusionnement de deux universités localisées dans la capitale Rabat: l'université Mohamed V Agdal et l'université Mohamed V Souissi qui sont devenues un seul établissement "*l'université Mohamed V de Rabat*", la place de l'EDD sera renforcée dans trois nouvelles filières accréditées à partir de l'année académique 2014-2015, où un module transversal- interdisciplinaire nommé Education pour l'Environnement et le Développement Durable sera assurée dans 3 établissements universitaires de l'université:

Le Module commun transversal: l'Education pour l'Environnement & le DD			
Etablissement d'attache	Faculté des Sciences de L'éducation	ENSET	Faculté des Sciences Juridiques
Intitule de la filière	Master Enseignement des Sciences Sociales et Développement Durable	Master Sciences de l'Eau, de l'Energie et de L'Environnement	Master Environnement et Développement Durable

Conclusion

L'apport de l'université, à travers ses activités de recherche, de formation des ressources humaines et de son interaction avec le milieu, est un apport décisif pour atteindre les objectifs de l'éducation pour le développement durable. Cet apport devrait être renforcé via le développement de partenariat et d'échange d'expériences à l'échelle nationale, régionale & internationale. Des institutions comme l'UNESCO, l'ISESCO, le MIO-ECSDE et autres, avec leurs expériences cumulées en la matière pourraient, sûrement constituer un levier considérable pour la promotion de l'éducation pour le développement durable non seulement à l'université, mais aussi dans les autres secteurs concernés par l'éducation formelle, non formelle et informelle.

ICTS, OPEN COURSES AND MOOCS: IMPLICATIONS FOR HIGHER EDUCATION

By Prof. **Michel Ricard**, University of Bordeaux
UNESCO Chair on Education, training and research for sustainable development

Twenty years ago, when internet became widely available, started what is called now "the digital revolution". At that moment, nobody was really aware of what would happen in the future – our present reality – and what would be the resulting changes in all sectors of our society. During the last five years, there has been a significant change in societal adoption of Internet technologies with extensive use both in developed and developing countries.

This increasing digital connectivity in all aspects of our society, particularly the education and training sectors, extends and strengthens earlier approaches developed using ICTs and digital work spaces in two different but complementary ways: the use of information available on educational websites, like virtual or open courses or universities, and access to web-based information collected via search engines. This open education, based on open educational resources and Creative Common Attribution License, brings new opportunities for innovation in education in general, more particularly in Higher Education (HE) as it allows Higher Education Institutions (HEI) to develop new online learning models and innovative practices in teaching and learning. This means that educational institutions, and HEI particularly, may capitalise on knowledge and know-how to afford better answers to society's expectations by meeting the challenges facing many educational systems, including a shortage of teachers, the inadequacy or lack of facilities, or even inadequate teacher training.

A new educational discourse emerged with Massive Open Online Courses (MOOCs). MOOCs are a relatively recent online learning "tool", having developed from sev-

Bibliographie

- Ftouhi M. (2000) Intégration des concepts de l'éducation environnementale dans les programmes éducatifs, publication de l'ISESCO, Rabat
- UNESCO (2005) UN Decade for ESD, 2005-2014, International implementation Scheme, Paris.
- Royaume du Maroc, Ministère de l'énergie, des mines et de l'environnement (2012); le Développement Durable au Maroc, les réalisations et les perspectives, de RIO à RIO+20;
- Scoullou M. (2013) «Education for Sustainable Development: Evolution – indicators – competences with emphasis on the Mediterranean countries» (actes de l'atelier de formation sur l'EDD à l'université théories et Pratiques, FSE- Rabat.

eral initiatives at the end of the last decade. MOOCs are now considerably increasing in HE as they give an opportunity for massification of courses in a life-long learning perspective, regardless needs, levels and status and overcoming constraints like the lack of teachers and infrastructures as well as financial disincentives resulting from administrative expenses.

One very positive aspect of flexible learning is that it is possible to learn what you like, when you like, and MOOCs are structured to favour this kind of learning. This of course is convenient for sharing knowledge and providing education and training without spatial or time constraint as well for students as for any other type of learner.

MOOCs are attracting high numbers of course participants, but they are not leading to high numbers of course completions even if there is a high rate of university students that use MOOCs to complement their courses programmes or to enrich their general knowledge on specific or general themes. This would suggest that even if MOOCs could become a positive source of curricula and training programmes for university students they do not represent actually a real alternative to HE curriculums.

Nevertheless, if we refer to the situation in USA (Allen & Seaman, 2013), a small segment of HEI are now experimenting with MOOCs and most institutions remain undecided with academic leaders remaining unconvinced that MOOCs represent a sustainable method for offering online courses; even if they believe MOOCs provide an important means for institutions to learn about online pedagogy they have concerns that credentials for MOOC completion will cause confusion about higher education degrees.

These doubts from the academic world mostly refer to two fundamental questions: is online education comparable or competitive with face-to-face education and are HEI offering online courses more adapted to our society? Up to now there is no definitive answer to that questions as long as education institutions have not fully integrated the digital dimension in their DNA.

MOOCs have attracted a great deal of attention from Higher education institutions and, in this regard, they can help democratizing higher education by providing accessible, flexible and affordable university courses for free or at a low cost for any learner. HE Institutions need to look more closely at MOOCs and learn from the different initiatives outside traditional institutions and patterns to meet the different expectations of students but also of new groups of learners in an open HE network.

Among numerous initiatives that are currently being taken to link face-to-face learning, ICT, eLearning and MOOCs, some of them are successful such as the French digital university for environment and sustainable development. This university, created 5 years ago, is governed by a board of University representatives but also representatives from private bodies, local authorities and civil society. Its original mandate was, in particular, to produce and share for students, teachers and any stakeholder involved in sustainable development, digital teaching resources and to develop ICTs as innovative teaching device. However, to better meet the expectations of academic and non academic users, this digital university relied on its open educational resources to create MOOCs on several themes related to sustainable development: circular economy, biodiversity, the energy transition, climate mitigation.

MOOCs can be seen as an extension of existing online learning approaches, in terms of open access to courses and this can be seen as positive but, on the other hand, some are thinking there is a risk of disaggregating teaching. It is obvious that all forms of digital education benefit to HE institutions, including MOOCs, but there is clearly a need for a better and deeper reflexion about how MOOCs can be associated to face-to-face/hybrid teaching and how they can be a catalyst for positive evolution of our actual way of teaching.

References

- Allen, E.I. & Seaman J. (2013) - Changing Course: Ten Years of Tracking Online Education in the United States http://onlinelearningconsortium.org/publications/survey/changing_course_2012
- Digital University on Environment and sustainable development-UVED: www.uved.fr
- AU Horizons (2014) - In Focus: ICTs in education: revolution or evolution? Vol. 20, 1-2, pp. 27-45 www.iau-aiu.net
- NMC (2013)- Horizon report on Higher education www.nmc.org/horizon-project/horizon-reports
- Pappano, L. (2012)- The year of the MOOC, November 2, 2012, NY times
- Yuan, L., Powell, S, Olivier B. (2014) - Beyond MOOCs: sustainable online learning in institutions <http://publications.cetis.ac.uk/wp-content/uploads/2014/01/Beyond-MOOCs-Sustainable-Online-Learning-in-Institutions.pdf>

UE4SD – UNIVERSITY EDUCATORS FOR SUSTAINABLE DEVELOPMENT

By Prof. *Daniella Tilbury*, and Dr *Alex Ryan*, University of Gloucestershire

Why Education for Sustainable Development in Higher Education?

Sustainable development has been identified as one of the greatest challenges that our societies are facing in the 21st century. Unsustainable practices are increasing social, economic and environmental inequalities; worsening the impact of environmental degradation; and limiting quality of life. It has been recognised that our education systems are critical to achieve sustainable development goals as they equip learners with the knowledge, skills and attitudes needed to re-orient social structures and systems in pursuit of these goals.

The UE4SD project targets the need for specific support in teaching and learning for sustainability at the higher education level. The higher education sector is

critically positioned to address sustainable development as it prepares future generations of professionals, challenges dominant paradigms and produces groundbreaking research. However, there is evidence suggesting that to successfully re-orient the higher education curriculum will require greater guidance and support for educators, if universities are to contribute effectively to a more sustainable future.



What is the Project Seeking to Achieve?

UE4SD is a three year higher education project funded by the European Commission under the Lifelong Learning Programme – Erasmus Academic Networks. The project is working across Europe to locate and capture recent innovation that supports the development of Education for Sustainable Development (ESD) competences of university educators. The aim is to collect and draw on best practices, new initiatives and usable tools for professional development in ESD for university educators.

The project is led by the University of Gloucestershire (United Kingdom) and involves 53 partners across 33 countries in Europe. The partnership has been divided into four regional hubs, to ensure that the full range of regional scenarios and contexts are visible throughout the project. The North region is coordinated by the University of Gloucestershire (UK), the West region by Leuphana University of Lüneburg (Germany), the South region by the Autonomous University of Madrid (Spain), and the East region by Charles University (Czech Republic). MIO ECSDE is an active partner of this project and has contributed to the dialogues as well as key deliverables.

The First Year of the Project

In its first year, the project has involved each country in completion of a mapping template which captures the status of ESD within higher education at the national level. These templates also identify and describe existing ESD professional development opportunities for university educators. These mapping profiles captured the following:

- **Status:** background information on the status of ESD within higher education at the national level, as well as the key policies, resources and initiatives that support its development.
- **Initiatives:** an overview of recent initiatives at the institutional and the professional level, to support the professional development of university educators in ESD.
- **Potential Case Studies:** two or three key initiatives that directly support the professional development of university educators in ESD. Details have

been generated about the type of initiative, its purpose, focus and pedagogical approach, the target groups and motivations to participate.

- **Reflection:** short reflective commentaries on strategies for the future, aimed at improving professional development opportunities for university educators.

The outcomes of this review were presented at the annual UE4SD Conference in Prague in October 2014 and can be accessed at www.ue4sd.eu. The overarching report from across the four regions will inform the second and third phases of the project, which seek to develop a leading practice publication on professional development in ESD for university educators and an online platform of resources to support this important area. These resources will then inform the development of a Higher Education Academy for Sustainable Development in the final year of the project.

UE4SD also seeks to establish a leading expert group in Education for Sustainable Development competences in higher education in Europe as a legacy of the project. It will create a platform to combine and share the expertise of network partners so that they can continue informing policy and practice at national and regional levels beyond the life of the project. Its activities are closely associated with COPERNICUS Alliance – the European Network of Higher Education for Sustainable Development.

Project Summary

Financed by: EC, LLP Erasmus, Academic Networks

Budget: 650,000 euro

Duration: October 2013 - September 2016

Size of Network: 53 higher education institutions in 33 countries

Co-ordinator: University of Gloucestershire (UK)

Collaborative links: COPERNICUS Alliance

Webpage: www.ue4sd.eu

Key project commitments

1: Reviewing the 'state of the art' and identifying leading practice (2013-14)

Conducting a grounded study to map and analyse existing opportunities at a country and regional level for university educators to develop Education for Sustainable Development competences. Four sub-regional and one state of the art report across all partner countries will be generated.

2: Developing new resources and guidance tools (2014-15)

The leading practice identified from the grounded study across European nations will form the basis of a publication that showcases best practices and diverse approaches to ESD

professional development. An online platform of resources will also be developed to support university educators and professional development teams in this area.

3: Developing an Academy for ESD in HE (2015-16)

The resources developed in phase two will inform the creation of a training academy on Education for Sustainable Development in Higher Education, which will be focused on supporting the re-orientation of higher education towards sustainability. This final phase will provide opportunities for reflection and capacity-building for university academic leaders, educators and key staff responsible for professional development.

MISCELLANEOUS MEDITERRANEAN NEWS

MEDITERRANEAN STRATEGY ON ESD (MSED) ENDORSED

UfM Ministerial Meeting, May 2014

The Mediterranean Strategy on ESD (MSED) has been formally and unanimously endorsed by the 43 Ministers of Environment of the Union for the Mediterranean (UfM) including the EU and the Mediterranean non-EU countries, on 13 May 2014.

In fact The Mediterranean Strategy in ESD was included in their declaration which also announces the continuation / second phase of the Horizon 2020 program to depollute the Mediterranean from 2015 to 2020; and the establishment of the UfM Working Group on Environment and Climate Change that will follow up on the adopted Ministerial Declaration and assess the progress made.

The process of developing the Mediterranean Strategy on ESD, which is largely based on the UNECE one took almost 5 years. The Mediterranean Strategy involves an eco region which touches upon three continents and



Union for the Mediterranean
Union pour la Méditerranée
الاتحاد من أجل المتوسط

states with different socio-economic and cultural background.

The UfM Secretariat, facilitated by MEDIES, is mandated to develop, as a follow up, an Action Plan for the Southern countries –the European Countries have been following already the UNECE strategy.

Hopefully, the Action Plan and the implementation of the Mediterranean Strategy in the next years will be a clear demonstration of cooperation and solidarity in a North - South and East - West interface.

Read more:

<http://ufmsecretariat.org/euro-mediterranean-cooperation-on-environment-and-climate-change-ufm-holds-ministerial-meeting-in-athens/>

THE “GOVERNANCE & FINANCING FOR THE MEDITERRANEAN WATER SECTOR” PROJECT: SUCCESSFUL COMPLETION OF THE NATIONAL DIALOGUES IN JORDAN AND TUNISIA

by Dr. Anthi Brouma and Ms. Varvara Vasilaki, GWP-Med

The National Water Policy Dialogues in Jordan and Tunisia have been recently concluded within the framework of the Union for the Mediterranean (UfM) labelled project “Governance & Financing for the Mediterranean Water Sector”; they were marked by the launch of two National Reports on ‘Water Governance: Overcoming the Challenges to Private Sector Participation’ during wide stakeholder workshops held on 4 June in Amman and on 9 June 2014 in Tunis.

During 2013-2014, the two Dialogues engaged a wide range of key stakeholders in the two countries, including authorities, utilities, civil society, donors, universities, private sector and experts, in a structured and informed interaction involving a series of workshops and bilateral meetings. The National Reports represent the tangible outcome of this process and contain diagnostic analyses of key governance bottlenecks to private sector participation (PSP) in water supply and sanitation services, as well as concrete policy recommendations to overcome them and country-specific Action Plans for their implementation.

During the launch of the reports, participants welcomed the recommendations and considered the find-

ings as reflecting a broad consensus on the governance challenges faced in the two countries’ water sectors, and the steps needed to deepen the current reform process, and the coordinating tools for further water initiatives.

The Policy Dialogues were conducted jointly by GWP-Med and the OECD in the framework of the UfM labelled project with the support the Swedish International Development Cooperation Agency (Sida), the FEMIP Trust Fund of the European Investment Bank (EIB), the GEF UNEP/MAP MedPartnership and the Mediterranean Component of the EU Water Initiative (MED EUWI). In Jordan, the Dialogue was conducted in close cooperation with the Ministry of Water and Irrigation (MWI) whereas in Tunisia in close cooperation with the Ministry of Agriculture (Bureau de la Planification et des Équilibres Hydrauliques).

The findings of the two National Dialogues will be disseminated during the 1st Regional Conference of the project to be held on 28-30 October 2014, in Athens, Greece, in close collaboration with the EU funded “Sustainable Water Integrated Management - Support Mechanism” (SWIM-SM) project. The Conference aims to reinforce the regional dialogue set off dur-

ing the launching of the UfM labelled project in May 2013, as well as the sharing of experiences by bringing together targeted stakeholders from the Mediterranean region, including public authorities, civil society and the private sector. The Conference will build upon the outcomes of the Dialogues conducted in Jordan and Tunisia and will discuss the way forward. Moreover, the Conference will also review synergies with other regional actors aimed to enhance sustainable financing of water infrastructure, including through PSP.

Contacts

Dr. Anthi Brouma : anthi@gwpmed.org,

Ms. Varvara Vasilaki : varvara@gwpmed.org



Snapshot from the official launch of the Project at the UfM headquarters, Barcelona, 28-29 May 2013.

SUMMER SCHOOL ON ESD IN BIOSPHERE RESERVES AND OTHER PROTECTED AREAS

Amfissa-Delphi, Greece, 6-19 July 2014
By Vassilis Psallidas, MEDIES ESD Consultant

An ERASMUS Intensive Program (IP) on Education for Sustainable Development (ESD) in Protected Areas and MAB Biosphere Reserves was successfully organised by the University of Athens, in the Centre of Environmental Education of Amfissa, Greece, in July 2014 with the participation of 8 Universities and other stakeholders from the Euro-Mediterranean region.

The 2 week long Summer School, directed by Prof. M. Scoullou (University of Athens, UNESCO Chair) provided a high quality intensive training on how ESD can be practically applied in various types of designated areas, such as MAB Biosphere Reserves, National Parks, Natura 2000 sites, etc. to thirty nine (39) trainees, a creative mix of post-graduate students from Croatia, France, Greece, Italy, Slovenia and Turkey, coupled with junior education professionals working in Biosphere Reserves, coming from Bulgaria, France, Greece, Montenegro, Russian Federation, Spain and the Former Yugoslav Republic of Macedonia.

The course was based, to a large extent, on the joint publication of UNESCO, MIO-ECSDE and UoA entitled “Education for Sustainable Development in Biospheres Reserves and other Designated Areas: A Resource Book for Educators in South-Eastern Europe and the Mediterranean” developed in 2012 as a training material for ESD experts and trainers.

The 8 partner Universities are all members to the MedUnNET were: University of Athens (Greece); Frederick University (Cyprus); University of Zagreb (Croatia); Technical University of Bordeaux (France); University of Padova (Italy); University of Primorska (Slovenia); Technical University of Catalonia (Spain); Akdeniz University (Turkey).

The Summer School was held in Amfissa’s Environmental Education Centre (KPE). It was jointly organised by the UNESCO Chair of the University of Athens and MEDIES Secretariat with the support, of EU/ERASMUS as well as the UNESCO Regional Bureau for Science and Culture in Europe. The workshop was under the auspices of the Hellenic National Commission for UNESCO and its National Committee of MAB/UNESCO.

It must be underlined that this summer school was not a standalone initiative but yet another step in a long lasting fruitful collaboration of a team of committed partners that work for the promotion of ESD in designated areas. It was a direct follow-up of EuroMAB held in Canada (2013), an e-course for Management of Protected Areas (2013) and a Grundtvig Workshop on creating Bridges on ESD (2011).

Read more: www.mio-ecsde.org/erasmus-IP-2014/index.html



Group photo from the summer school on ESD, Amfissa, 19 July 2014.



MIO-ECSDE/MEDIES AT THE COPERNICUS ALLIANCE CONFERENCE: EDUCATION FOR SUSTAINABILITY: BUILDING CAPACITY IN HIGHER EDUCATION

Charles University Rectorate, Prague, 3 October
By Vicky Malotidi, MEDIES Secretariat

The Conference has coincided with the end of the UN Decade on ESD and the newly formed Global Action Programme (GAP) on ESD. The Copernicus Conference reviewed the trends and changes in Higher Education (HE) towards sustainability over the last ten years, with an emphasis on whole-of-institution approaches, curriculum change, uni-



Snapshot from the Conference in Prague.

versity educators, ESD competences and quality enhancement. Prof Michael Scoullos, University of Athens and Vicky Malotidi, MEDIES Secretariat presented a paper entitled: "The Mediterranean Universities Response to the UN Decade on ESD" highlighting: (i) The universities input in the drafting process of the Mediterranean Strategy on ESD (ii) The capacity building activities of the Network of Mediterranean Universities on SD with emphasis on ESD (MedUnNET) for university staff (iii) The establishment of the UNESCO Chair and Network on Sustainable Development Management and Education in the Mediterranean in the University of Athens to facilitate coordination of ESD activities in the region. Furthermore, Prof. Scoullos made another presentation entitled "Challenges Higher Education faces in addressing ESD" stressing out topics such as: the ESD approaches in HE; the re-orientation of HE moving towards transdisciplinarity; the role of HE in construction of a global vision; the required ESD approaches and the university educators competences to address the contemporary challenges.

Read more on the conference: www.ue4sd.eu/project-events/copernicus-conference

NON CONVENTIONAL WATER RESOURCES PROGRAMME IN THE MEDITERRANEAN

By GWP-Med

The Non Conventional Water Resources (NCWR) Programme is implemented by the GWP-Med, along with national and local authorities in beneficiary islands. Funded by the Coca-Cola Foundation, it is already active in insular communities in three countries facing water scarcity issues: Greece, Malta and Cyprus.

The Programme aims to mobilise the NCWR utilization and leverage their enormous potential, as a sustainable, cost-effective solution to enhance water availability in water stressed countries. It pursues its objective by show-casing NCWR applications in public buildings, educating students on sustainable water use, training teachers on education for sustainable development based on tailor-made material, enhancing the local technicians' skills to install/maintain NCWR systems, building the local authorities' capacity and raising awareness among general public on applying NCWR solutions and saving water at domestic & community level, as well as promoting dialogue and multi-stakeholder partnerships on NCWR Management around the Mediterranean.

The NCWR Programme was initiated in 2008 in Greece, in partnership with the Coca-Cola Hellenic Bottling Company &



Construction of the rubble walls at Ramla Valley in Gozo in the framework of the Alter Aqua Programme, September 2013.

Coca-Cola Hellas. Since commencement, it has applied a total of 53 rainwater harvesting, greywater reuse or reverse osmosis systems, in 28 Greek Islands. It has reached out to more than 7500 students and almost 1000 teachers in the beneficiary islands and Athens. In Malta it was launched in 2011, in partnership with the Ministry for Energy & Health, the Ministry for Gozo, the Eco-Gozo Project, the General Soft Drinks Ltd. & the Coca-Cola Company. 4 Rainwater Harvesting Sys-

tems were installed and 6 further reinstated in public school buildings, a Greywater Reuse System was installed at the Gozo Football Stadium and a Stormwater Management application was built at the Ramla Valley in Gozo Island. 3,200 Students were educated, while 255 teachers were trained and provided with the Alter Aqua Educational Material, for which the Programme received a STENCIL Award for the most innovative science related educational resources in Europe. In Cyprus the Programme was initiated in 2013, in partnership with Lanitis Bros & Coca-Cola Company. 4 public schools and 3 centres of environmental education have benefited by the installation or reinstatement of greywater reuse and rainwater harvesting systems. In 2013, 174 teachers in Limassol and Nicosia were trained on the educational material on NCWR

specifically developed for the Programme. Educational partners are MIO-ESCDE/MEDIES, the Pedagogical Institute of Cyprus, Nature Trust Malta and the Ekoskola Programme.

As from 2014, activities in Greece, Malta, Cyprus and - soon - Italy are run as part of the 5-year Programme "Climate Change Adaptation through NCWR Management in North Mediterranean", funded by the Coca-Cola Foundation with a 2.5 million USD grant.

Further information

Greece: <http://goo.gl/UrMR4X>,

Malta: <http://goo.gl/EpHRjL>, [f](#) Alter Aqua

Cyprus: <http://goo.gl/4Q6IY4>, [f](#) Mission Water Cyprus

Tel: +30 210 3247490, 3247267, E-mail: secretariat@gwpmmed.org

THE MARLISCO EXHIBITION IN GREECE

By Iro Alampeï, MEDIES Secretariat



Marine Litter: A problem of global concern...

In recent years the media often deluges viewers with alarming pictures of beaches with mountains of garbage or sea wildlife that is trapped or chokes or dies because of floating litter. Litter is found in all seas and coasts around the world... lying on shores ... floating at any depth... even in the most isolated, pristine environments such as the Arctic, Antarctic and in the middle of the ocean.

Does media exaggerate?

Exactly how detached is the problem from our conventional lives?

Unfortunately, in most cases one doesn't need to move far from one's place to locate garbage on coasts, river banks, roads' sideways etc. Such a sight easily comes to mind to most of us. Actually, surveys show that globally wastes in the seas are up to 70% plastic. If one considers how plastic has taken over the planet during the last century, and that the first generation of plastics are still with us today... one can start to grasp the huge dimensions of the problem.

What is the MARLISCO Exhibition about?

The 3 year long European project MARLISCO aims to raise public awareness, facilitate dialogue and promote co-responsibility for the sustainable management of marine litter. A series of activities including a European wide survey, a video contest, a collection of best practices, nationally broadcasted debates, the production of a multilingual educational material (see page ++), and many other tailor made activities are carried out by a consortium of 20 partners in the 13 project countries.

Within the MARLISCO project, MIO-ECSDE has prepared an exhibition to sensitise students and the general public on the issue. It is composed of a set of thought provoking panels, which explore the sources, impacts and possible ways to tackling the global challenge of marine litter. The target is for viewers to re-consider their consumption and disposal behaviours and to engage in a re-



MARLISCO Exhibition at the Beach clean up in Varkiza, 10 May 2014.

sponsible lifestyle with an ultimate goal of cultivating a zero-waste culture.

MARLISCO Exhibition in Greece

The MARLISCO Exhibition has been translated and displayed in the 13 MARLISCO partner countries, composing in itself a robust European wide campaign against marine litter. In Greece, the MARLISCO Exhibition has been, so far, displayed on the occasion of:

- Festivals such as the 1st Athens Science Festival (30/04 - 05/05 2014), attended by more than 5,000 visitors and the European Researchers Night (26/09/2014) attended by more than 1,500 students.
- Beach Clean ups such as the European Clean Up Day (Varkiza, 10/05/2014) and the International Coastal Clean Up Day (Faliro, 20/09/2014).
- Conferences and High Level Meetings, such as the Mediterranean Marine Litter Week, Athens 12-16/05/2014, and the informal Environment Ministers meeting in Athens on 13/05/2014.

The Greek version of the MARLISCO exhibition has been produced with the support of the Coca-Cola System in Greece (Coca-Cola Hellas & Coca-Cola Tria Epsilon).

ANNOUNCEMENT: MEDITERRANEAN-WIDE SURVEY ON THE VIEWS, PERCEPTIONS AND VISIONS OF YOUTH ON WHAT CONSTITUTES THEIR SUSTAINABLE FUTURE

by MEDIES/MIO-ECSDE

In the Mediterranean region rapid developments more and more show that the development models followed during the past decades are today inadequate to ensure conservation (much less improvement) of environmental conditions or natural resources including water, fossils, biodiversity etc. The environmental, economic and social dimensions which constitute necessary preconditions for Sustainable Development, are still being applied in a fragmented manner, in spite of repeated incitements and recommendations, over the past 20 years.

What is the position of the youth of the Mediterranean on the sustainability issues?

What is their understanding and what is their vision of sustainable development?

What are their needed skills in order to improve their future prospects (work, social, financial, etc)?

What actions do young people consider important in order for them to successfully address present and future challenges?

These questions are raised in the Mediterranean-wide survey aiming to explore the views, ideas and visions of youth around the sustainability challenges in countries of the region. The survey will run from November 2014 – June 2015 through online questionnaires disseminated in all Mediterranean countries.

The survey is conducted by MEDIES / MIO-ECSDE and is supported by the General Secretariat of Youth of the Hellenic Ministry of Education and Religious Affairs.

Read more: www.medies.net

PUBLICATIONS

EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD) IN BIOSPHERES RESERVES AND OTHER DESIGNATED AREAS: A RESOURCE BOOK FOR EDUCATORS IN SOUTH-EASTERN EUROPE AND THE MEDITERRANEAN



This 256p long resource book is a joint UNESCO & MIO-ECSDE publication of 2013 which seeks to make a meaningful and substantial link between the educational process that is taking place in Biosphere Reserves (BRs) and other protected or designated areas, and their "protection" as such, using as a vehicle "Education for Sustainable Development" (ESD).

The training material is addressed to trainers, officers of MAB Biosphere Reserves (BRs), Protected Areas (PAs), Environment Centres, Nature Parks, Eco-museums, NGOs, etc. working on any type "Designated Area" in South-Eastern Europe and the Mediterranean. Eventually, it can be used by all those involved in implementing awareness raising programs in-the-field, whether they come from formal or non formal education systems.

The material can be accessed online: www.mio-ecsde.org/protarea/index.html

THE GIFT OF RAIN: ESD MATERIAL ON RAIN WATER HARVESTING IN GREEK LANGUAGE REACHED ITS 3RD EDITION



This is a joint GWP-Med & MIO-ECSDE publication that is produced within the wider Non Conventional Water Resources (NCWR) Programme (see page 20) and has reached its 3rd edition in 2014.

The educational material aims to raise the awareness and sensitise students of late primary and secondary level (10-14 years) towards the sustainable management of water. More specifically the material aims to cultivate the students' necessary skills to address the century-old, partly abandoned practices of rainwater collection and use, as well as the modern techniques that can be applied today in homes, hotels, etc. in order to collect, economise, or recycle water (through grey water reuse devices). Overall the material aims for students to acquire a positive attitude towards wise water use in their daily lives.

The first edition of 2009 covers particularly the cases of the water scarce Cyclades islands, the second edition (of 2013) targets all island and coastal territories of Greece that have a tradition in rainwater harvesting, while the recent third edition (2014) extends also to issues of water management in urban environments.

Access the material: www.medies.net/staticpages.asp?aID=352

ALTER AQUA: EDUCATIONAL MATERIAL ON NON CONVENTIONAL WATER RESOURCES IN MALTA



This is another joint GWP-Med & MIO-ECSDE publication that is produced within the Non Conventional Water Resources (NCWR) Programme (see page 20). Further to the launch of the NCWR Programme in Malta in 2011, a committed team from Greece (MEDIES Secretariat) and Malta (Nature Trust Malta), have closely col-

laborated in order to prepare a material that on one hand, embodies the Greek know-how and, on the other, it is culturally relevant and appropriate for the Maltese educational community.

The result is the Alter Aqua Educational Material, produced in 2012 and reproduced in 2014. Since 2012 the material has been extensively applied in schools of Gozo and Malta (by NTM), and has been the object of capacity building workshops for teachers. The educational material includes a publication distributed to teacher, a poster to be used by students and three sets of hands-on material to be used in school interventions (one for Gozo and two for Malta). In 2013 the Alter Aqua material has received the STENCIL Award that rewards the most innovative science related educational resources in Europe.

Access the material: www.medies.net/staticpages.asp?aID=352

EDUCATIONAL MATERIAL ON NON CONVENTIONAL WATER RESOURCES IN CYPRUS



The educational material constitutes the expansion of the Non Conventional Water Resources (NCWR) Programme from the Greek and the Maltese islands, this time in Cyprus!

The material has been authored by MEDIES Secretariat together with the Pedagogical Institute of Cyprus, so as to be tailor made to the Cypriot realities and needs. It is aligned with the official Cypriot ESD curriculum that is applied at the primary level, particularly its learning objectives relating to the theme of "water".

The joint GWP-Med & MIO-ECSDE publication entitled "the other water" (το άλλο νερό) was printed in 2013 and is accompanied by posters for students, as well as two sets of hands-on materials to be used by Environmental Education Centres and in the school interventions. A series of train the trainers seminars have taken place already on the material in 2014, and it is envisaged that it will be regularly applied, especially in the Environmental Education Centres, where the waterworks of the NCWR programme have been installed (see page 20).

Access the material: www.medies.net/staticpages.asp?aID=352

KNOW FEEL ACT! TO STOP MARINE LITTER: LESSON PLANS AND ACTIVITIES FOR MIDDLE LEVEL STUDENTS



As becomes evident by its title, the educational material "Know Feel Act! To Stop Marine Litter" whose English version has been released in November 2014 has been prepared to inform, sensitise and enable European teachers and students to take action to tackle the problem of litter in our seas and coasts.

It is a joint product of the MARLISCO European project and within the project duration (2012-2015) it is expected to be translated and applied in the 15 partner countries. It contains 17 learning activities examining the characteristics, sources, effects and possible ways to tackle the problem, addressing it from an environmental, societal, cultural and economic point of view. It has been designed to primarily serve youth aged 10-15 yrs, but can be used also by educators outside the formal schooling system.

Training European teachers about how to use this material has been the aim of a 10 day (16 hrs) long e-course that was held by MEDIES secretariat in June 2014 and was followed by 69 teachers from 13 countries. The e-course will be repeated in December 2014 and will host 100 trainees.

MARLISCO is an FP7 project that is funded by the European Commission.

Read more on MARLISCO and access the educational material: www.marlisco.eu

"Water Scarcity, Security and Democracy: A Mediterranean Mosaic"



This is the title of the book jointly published by the Cornell University, the Atkinson Center for a Sustainable Future and the Global Water Partnership-Mediterranean in September 2014; a mosaic itself of stories, insights, questions and answers about water, people, natural resources and water-related socio-political balances in the Mediterranean. By travelling around the

region, the book looks into a variety of inter-related themes with challenging case studies from across the region. The challenges are addressed, on the one hand, in the framework of a "fine mosaic of solid pieces of immense durability" - of peoples, historical backgrounds, memories, civilizations, religions, ideologies, philosophies; on the other hand, within a range of pressures: biodiversity losses, increasing pollution, fast-growing population, unsustainable consumption, fast-developing urbanization, climate change ante portas, increasing desertification, droughts and flood phenomena, deep socio-political and economic crisis, armed conflict and

migration. In this context, the importance of today's water security challenge should not be underestimated.

The book proposes a path towards ensuring sustained economic growth, human security and political stability in the region: that of integrated water resources management (including integrated approach to coastal and river basin management), as well as its nexus approach with energy and food. This needs to be prioritized by governments, local authorities, civil society, businesses and academics. The tools needed to turn policy into action and shape a better future for the whole region are there: good governance; participatory policy making, coordinated implementation and monitoring; accessible information; enforced capacities; affordable technologies and innovation; socially sensitive investments; tailor-made, pro-poor fiscal instruments.

The book was edited by Professors Gail (Electra) Holst-Warhaft and Tammo Steenhuis of Cornell University and Dr. Francesca de Châtel. GWP-Med Chairman, Prof. Michael Scoullou, addresses readers in the book's foreword. Furthermore, GWP-Med, in collaboration with UNECE, contributed the case study on the dynamically evolving Drin River Basin collaboration.

The book is available for download at www.gwpm.org.



MIO-ECSDE Profile

The Mediterranean Information Office for Environment, Culture and Sustainable Development, is a Federation of Mediterranean Non-Governmental Organizations (NGOs) for the Environment and Development. MIO-ECSDE acts as a technical and political platform for the intervention of NGOs in the Mediterranean scene. In cooperation with Governments, International Organizations and other socio-economic partners, MIO-ECSDE plays an active role for the protection of the environment and the sustainable development of the Mediterranean Region.

Background

MIO-ECSDE became a federation of Mediterranean NGOs in March 1996. Its roots go back to the early 80s, when the expanding Mediterranean membership of the European Community encouraged the European Environmental Bureau (EEB) to form its Mediterranean Committee supported by Elliniki Etairia (The Hellenic Society for the Protection of the Environment and the Cultural Heritage). The Mediterranean Information Office (MIO) was established in 1990 as a network of NGOs, under a joint project of EEB and Elliniki Etairia and in close collaboration with the Arab Network of Environment and Development (RAED). The continuous expansion of MIO-ECSDE's Mediterranean NGO network and the increasing request for their representation in Mediterranean and International Fora, led to the transformation of MIO-ECSDE to its current NGO Federation status. Today it has a membership of 126 NGOs from 26 Mediterranean countries.

Our Mission

Our mission is to protect the Natural Environment (flora and fauna, biotopes, forests, coasts, natural resources, climate) and the Cultural Heritage (archaeological monuments, and traditional settlements, cities, etc.) of the Mediterranean Region. The ultimate goal of MIO-ECSDE is to promote Sustainable Development in a peaceful Mediterranean.

Major tools and methods

Major tools and methods used by MIO-ECSDE in order to achieve its objectives are the following:

- Promotion of the understanding and collaboration among the people of the Mediterranean, especially through their NGOs, between NGOs and Governments, Parliaments, Local Authorities, International Organizations and socio-economic actors of the Mediterranean Region.
- Assistance for the establishment, strengthening, co-operation and co-ordination of Mediterranean NGOs and facilitation of their efforts by ensuring the flow of information among relevant bodies.
- Promotion of education, research and study on Mediterranean issues, by facilitating collaboration between NGOs and Scientific and Academic Institutions.
- Raising of public awareness on crucial Mediterranean environmental issues, through campaigns, publications, exhibitions, public presentations, etc.

Contact Information

POSTAL ADDRESS: 12, Kyrristou str. • 10556 Athens, Greece

T: +30210 3247267, 3247490 • F: +30210 3317127 • E: info@mio-ecsde.org • W: www.mio-ecsde.org