African universities and science diplomacy in favour of alternative sources of energy

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Sustainable Energy for Africa, Brussels 23-25 October 2017
Royal Academy of Overseas Sciences

JOINT STATEMENT BY THE PRESIDENTS-RECTORS OF WORLD UNIVERSITIES AND PUBLIC RESEARCH AGENCIES AND THE NETWORK OF AFRICAN SCIENCE ACADEMIES – COP22- Marrakesh

Name	Institution	Signature
Driss OUAOUICHA	Al Akhawayn University	
Michael Geisler	Manhattanville College	
Mª TERESA FERNANDEZ de la VEGA	FUNDACIÓN MUJERES POR AFRICA	
SAAÏD AMZAZI	Université Mohamed V	
Azzeddine ELMIDAOUI	Université Ibn Tofail	
Noureddine Mouaddib	université internationale Rabat	
Abdelaziz BENJOUAD	université internationale Rabat	
Ghani CHEHBOUNI	IRD	
Badr IKKEN	IRESEN	
NEJJARI CHAKIB	Université Mohammed VI des Sciences de la Santé	
ALLAL SAMIR	Univ VERSAILLES	
ROPIVIA MARC-LOUIS	UNIVERSITE OMAR BONGO - GABON	

Name	Institution	Signature
Khaled Hassan	University. Zagazig. U. Egypt	
Mostafa HADDOU	AUF - Paris	
MUTALE MUSONDA	Cavendish University Zambia	
Paul Louzolo-Kimbembe	Université Marien Ngouabi	
ZAKARIASY Lova	Institut Supérieur de Technologie Antsiranana	
ANDRIANARIMANANA Jean Claude Omer	Université d'Antananarivo	
Sawadogo Georges	Universités publiques, CNRS, IDS Burkina	
MPOAME MBIDA	Université de Dschang Cameroun	
Mehdi Aljeddi	Libyan Emirates	
Ouateni DIALLO	USTTB, Mali	
AÏDARA DAOUDA	Université Territoriale et Technologique Lokossa CÔTE d'IVOIRE	
YAPI-GNAORE Valentin	CIRDES, Burkina	
Mrs ISPEGBA Kafui	Université de Lomé Togo	
BATAWILA Komlan	Université de Lomé Togo	
ANA COSTA FREITAS	CRUP	
	UNIVERSIDADE DE EVORA	REITORA
PAULO QUARESMA	UNIVERSIDADE DE ÉVORA	VICE-REITOR
Ali MAHAMANE	UNIVERSITE de Diffa	Recteur
James Ogbonna	University of Nigeria	Deputy Vice Chancellor
Viresh Dutta	I.I.T. DELHI	(Head, CES)
Kitessa Hundera	Jimma University	
TSALEFAC Maurice	université de Dschang	

JOINT STATEMENT BY THE PRESIDENTS-RECTORS OF WORLD UNIVERSITIES AND THE NETWORK OF AFRICAN SCIENCE ACADEMIES AND PUBLIC RESEARCH AGENCIES– COP22- MARRAKECH

Signed:

Name	Institution	Signature
EL GUERJOUMA	CPU France / Le Mans Université	
TANO YAO	Université NANGUI ABROGOUA / Abidjan	
NEJMEDDINE Ahmed	CPU - Maroc. UH1 Settat	
SAHBI Hassane	CPU - Maroc. UMI Meknès	
ROPIVIA Marc-Louis	Université OMAR BONGO LIBREVILLE GABON	
ALLAL SAMIR	Univ. VERSAILLES	
SEIDU AL-HASSAN	UNIV. FOR DEV'T Studies GHANA	
COULIBALEY D. Babakone	Université de Kara-TOGO	
Addo MAHAMANE	Universités publiques du Niger, et Université de Tahoua	
GASPARD BANYANKIMBONA	UNIVERSITÉ du BURUNDI	
FILAKOTA RICHARD	Université Catholique Afrique Centrale	
Baydallaye KANE	Université Gaston Berger, SENEGAL	
Emmanuel KAMDEM	Institut Panafricain pour le Développement Cameroun	
Emmanuel KAMDEM	université africaine de développement coopératif. Bénin	
RAVALISON Rijamalala	Institut Supérieur de Technologie Antananarivo MADAGASCAR	
Bonzi Coulibaly Yvonne	Académie des Sciences (ANSAL-B)	
TSALEFAC Maurice	université de Dschang-Cameroun	
MOUDACHIRAU Mansourou	Institut Univ. Sciences et Tech AJAVON Sebastien	
SAMUEL AYONETTE	Univ. of Buea, Cameroon	
Fatoumata CHERIF	ONG Femme P. D Guinée	
Lourdes Girard	UNAM-México	
Pr. CHARLES ANSAH	KNUST, KUMASI, GHANA	
	5 Universités de 5 provinces de Madagascar	
Jean Claude Omer		
Ouateni Diallo	5 Universités publiques Mali	

Name	Institution	Signature
	CRUE	
	Universidad Granada	Rectora
	Président Université Tunis	
	Ministère Ens. Sup	(SG)
	Président de l'Université Sultan Moulay Slimane. USMS	
	Universidad de Sevilla	
	Universidad Ramon Llull	
	Universidad de La Laguna	
	UNIVERSIDAD DE LA LAGUNA	
	U. de Almería	
	U. Castilla La Mancha	
	UNIV. SEVILLA	
	UNIV. SEVILLA	
	UNIV. ALCALÁ	
	UNIV. UIMP	
	UNIV. MURCIA	
	Univ. chouaib Doukkali	
	université Abdelmalek Essaadi	
	Université Hassan II Casablanca	
Lassaad El ASMI	Univ. de Carthage	
Moh'd Radaideh	Amman Arab Univ.	
Mohamed Mars	University of Gabes	
Mahjoub Aouni	University of Monastir	
TOURE Salîou	Univ. Internation. Sud Bassam	
Lidjole Abiba Sanogo	Univ. Jean Lorougnon Guédé	
Fethi Sellaouti	Univ. de Tunis El Manar	

67 African universities
18 world universities

HII Academy of Science and Technology

African Academy of Sciences + 19 national science academies

CPU Morocco

CRUE Spain
CPU France
CRUP Portugal
AUF
IRD
UNIMED

Parties (COP 22)

MARRAKECH
MOROCCO

7-18 November 2016

ACTIONS TO TACKLE THE ISSUE OF CLIMATE CHANGE AND ITS IMPACTS ON AFRICA

JOINT STATEMENT BY THE PRESIDENTS-RECTORS & VICE CHANCELLORS OF WORLD UNIVERSITIES; THE NETWORK OF AFRICAN SCIENCE ACADEMIES (NASAC) AND PUBLIC RESEARCH AGENCIES -COP22- MARRAKECH

It is now scientifically well established that human activity has an important impact on the disturbance of ecosystem balance leading, amongst other things, to climate change and global warming. The combined effect of intensive increases in greenhouse gas emissions and the degradation of the natural carbon sinks had led to a deterioration of the earth's climate with dramatic consequences for nature, the environment and living systems,mainly in the most vulnerable regions such as Africa.

To face such potentially irreversible and permanent process, the international community has become incrementally conscious about the urgent need of taking proactive actions to tackle global warming and its nocuous consequences.

The 2015 Paris COP 21 which gathered 195 countries resulted in consensual decisions and important binding commitments, including : i) Engage both developed and developing countries in a collective effort to reduce the greenhouse gas emissions and protect and develop the various natural carbon sinks, ii) Limit the global temperature increase well below 2 degree Celsius by the end of the century and not exceed 1.5 degrees for the coming decades, iii) Establish binding pledges by all signatory countries to make "Nationally Determined Contributions" (NDCs) and set an international assessment and review process of the NDCs achievements, iv) Commit the developed countries to support the efforts of developing countries in terms of reduction in greenhouse gas emission, resilience, adaptation and mitigation, v) Mobilize, by 2020, $100 billion per year for supporting the developing countries and mainly African ones and set a higher goal after 2025, vi) Set a mechanism to address "loss and damage" resulting from climate change and vii) Reinforce capacity building and transfer technology to developing countries.

While an important step was reached at the Paris COP21, the details for translating the binding agreement into practical and operational measures was left for subsequent COPs, mainly for the Marrakech-Morocco COP22. COP22-a Conference of Acts-has defined amongst its objectives and actions the 3A concept: Adaptation, Agriculture & Africa, proactively putting Africa's priorities at the core of the COP22 Agenda.

While Africa is currently the least polluting continent, producing only about 4% of the world's greenhouse gases it is the most impacted continent with dramatic consequences on its ecosystems, population and development. Such global warming has exacerbated several issues related to water scarcity and intensification of drought cycles, desertification, deterioration of agriculture and food security, alteration of the fauna and flora, intensification of pandemic and epidemic threats, increase in poverty and its interplay with the rural exodus, migration, criminality and conflicts.

Advances in both scientific knowledge and sustainable and environmental-friendly technologies are key to identify and implement appropriate solutions for addressing climate change threats and meet the Sustainable Development Goals (SDGs) in COP21 by the United Nations as a global framework for international cooperation. As a consequence, promotion of scientific research and academic/university training should be explicitly included in the operational implementation of the COP agreements.

Therefore, we, the Presidents-Rectors & Vice-Chancellors of world Universities, public research agencies and members of the Network of African Science Academies urge the international decision makers to:

1. concretely implement the binding commitments decided at COP21, with a clear agenda and transparent means for international assessment and review of the NDCs achievements based on scientific and technological evidence;

2. make firm commitments by countries and international institutions for the constitution and the functioning of the Green Fund and the Fund for Climate Change Adaptation;

3. implement urgently the mechanism to support the efforts of developing countries in terms of mitigation, resilience & adaptation to climate change, with a special focus on Africa due to its high vulnerability and also the high harm caused by global warming on the continent;

4. dedicate a special fund for restoring and promoting carbon sinks such as forests across the continent;

5. promote scientific research and collaboration, capacity building and technology transfer to developing countries, particularly African ones;

6. financially support the efforts made by developing countries, particularly Africa,to implement sustainable development policies and actions covering (renewable energies, sustainable agriculture, treatment, desalination and water management and protection of the fauna and the flora);

7. encourage gender equality and the involvement of women and youth in decision-making, particularly in mitigation of and adaptation to climate change;

8. adopt a formal commitment to strongly support environmental and climate change research by African scientists.

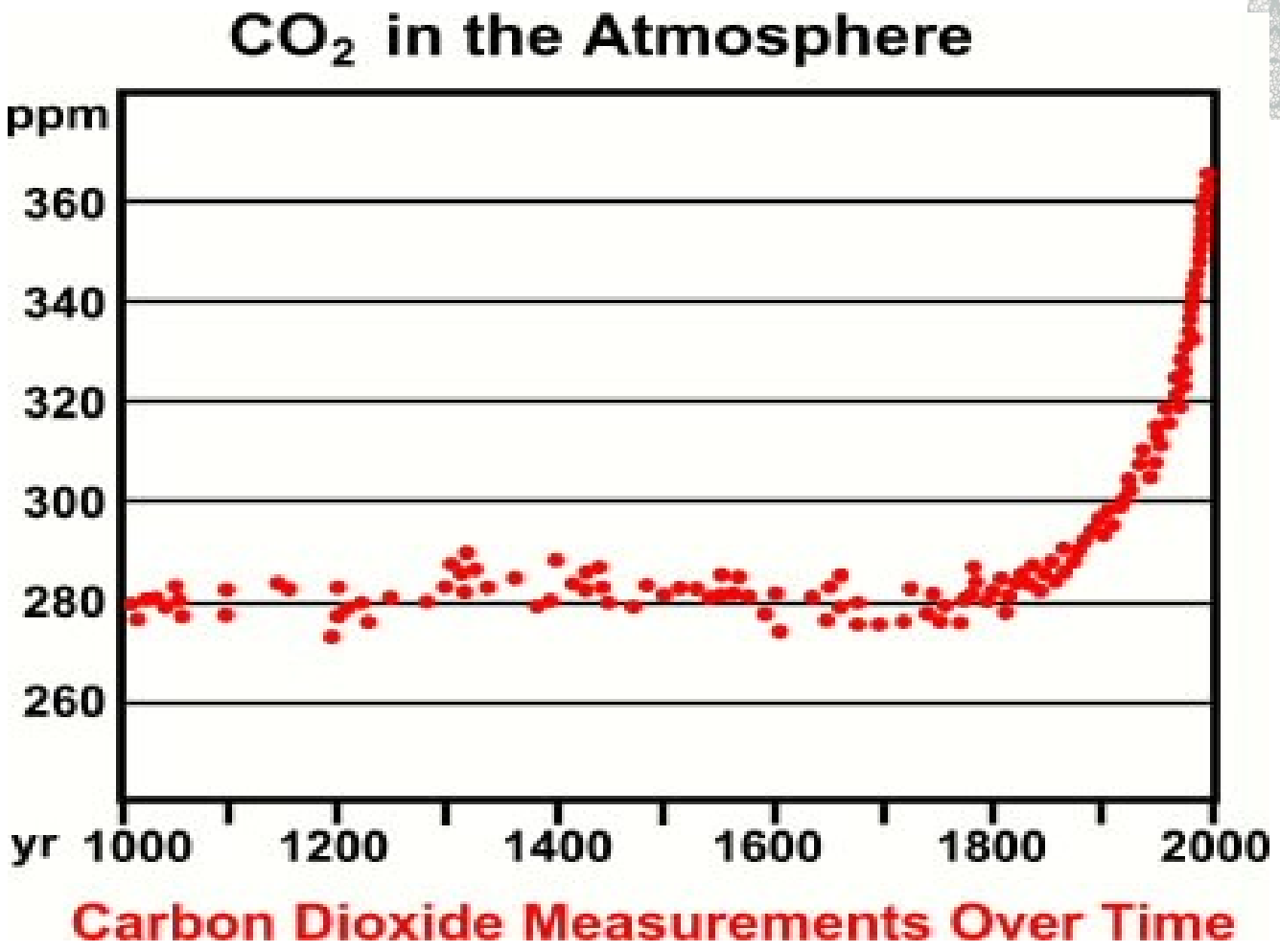
While the Presidents-Rectors & Vice-Chancellors of the world Universities, public research institutes and the Academies members of NASAC urge the African countries to work out an African vision, based on continental concertation, collaboration and exchange of information and expertise, on global warming and climate change taking into account local and geographical specificities, they also urge the United Nations, decision makers from the developed countries and international institutions to assign a specific fund to financially support concrete initiatives to be implemented in Africa. Their recommendations are focused on three main concrete initiatives:

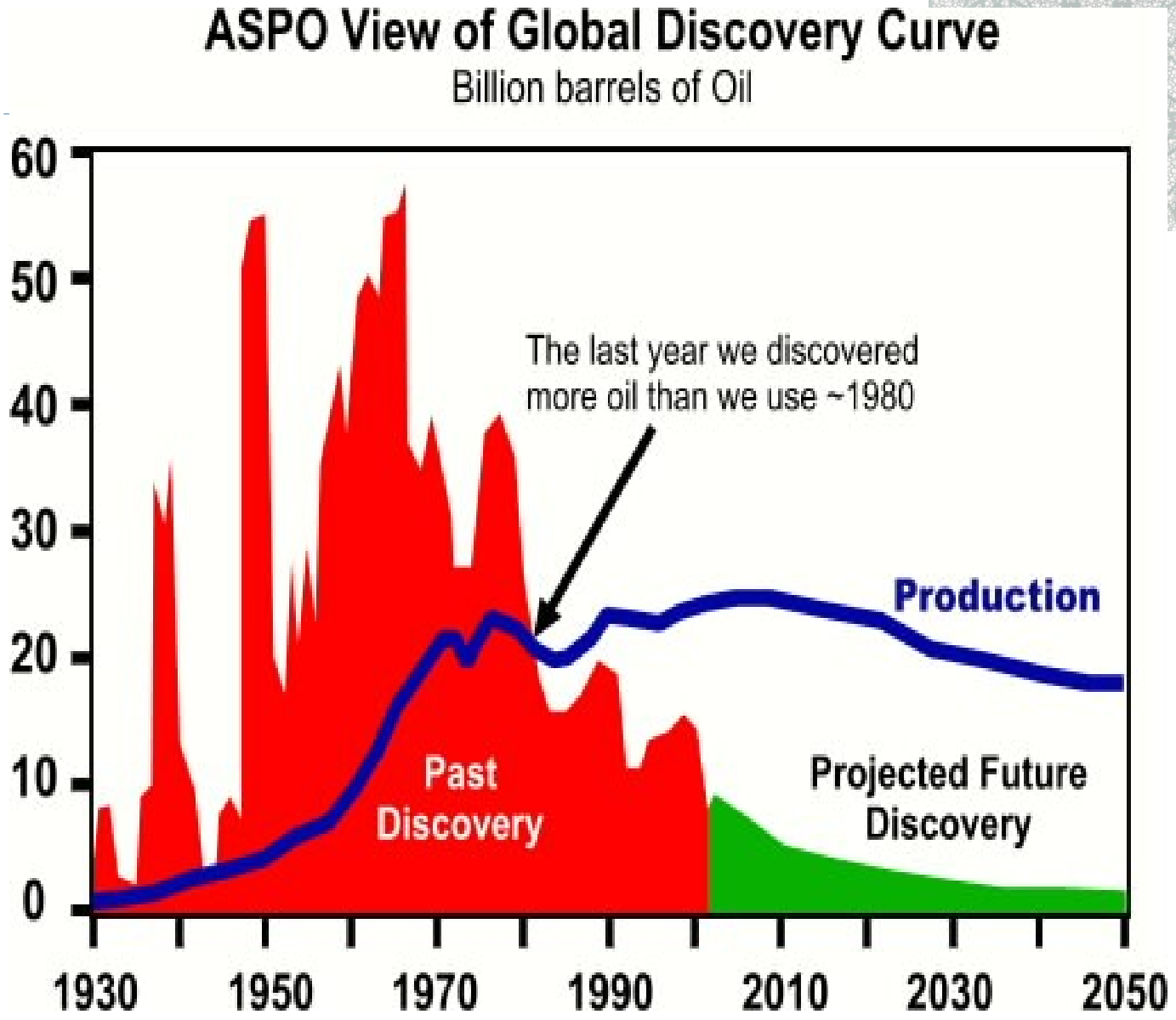
1. Create an African network of national scientific observatories in various African countries to measure greenhouse gas emissions and to assess the impact of global warming on the environment, on fauna and the flora, on the health of populations and living systems, on desertification & water scarcity. Such scientific observatories would involve experts and researchers who will provide scientific-based evidence on climate change and its impacts to be used by African countries to design the adequate policies and actions for resilience, mitigation and adaption to global warming.

2. Create research and innovation centers and clusters dedicated to climate change and sustainable development in African Universities to be supported by the Green Fund.

3. Create adapted curricula and training to build a green generation and support capacity building in southern countries with encouraged sharing of expertise and mobility of students and researchers.

The Carbon footprint




ASPO View of Global Discovery Curve
Billion barrels of Oil
60
50
40
30
20
10
0
1930
1950
1970
1990
2010
2030
2050
The last year we discovered more oil than we use ~1980
Production
Past Discovery
Projected Future Discovery

Components of university sustainability

Source: ASPO

Universities initiatives(1)

- Assess university carbon footprint

Improve the university's environmental impact: Carbon footprint, energy audits, accessibility, diagnose water circuits.

- Work for biodiversity

Differential management of green spaces

- Improve mobility within campus

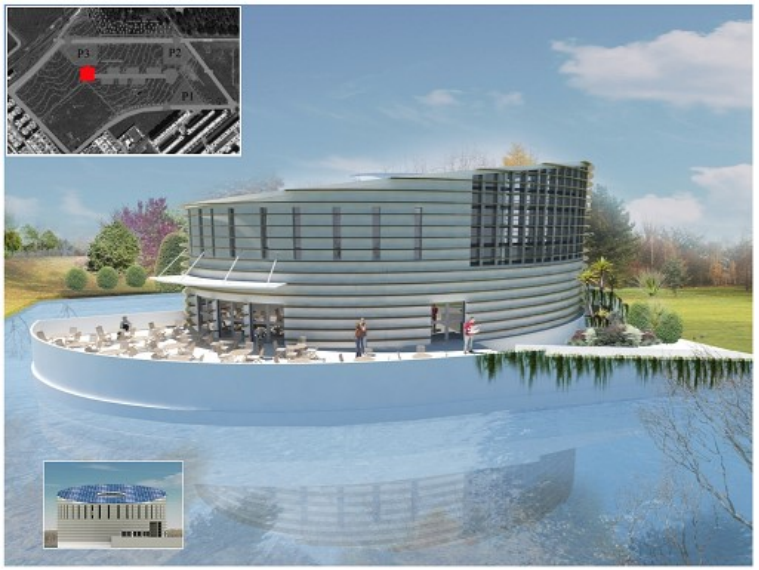
Avoid CO2 generation

- Recycle waste

Campus activity generates chemical, biological and electronic wastes …

University of Texas Student Services Bldg.

Mohammed V University
Green campus, Tamesna



17 side events run by universities

MARRAKECH COP22|CMP12
UN CLIMATE CHANGE CONFERENCE 2016

Water-Energy-Food
Research and Innovation to address the nexus in the Mediterranean
15th November 2016 -14:30 to 16:00
European Union Pavilion – Brussels Room (BLUE ZONE)

Land, food, energy, water and climate are interconnected though a complex system (a 'nexus'), dominated by interdependencies and linkages between human activities and natural environment. As countries industrialize, more water is needed for energy production and industry, as world population grows, more water is equally needed for agriculture and for cities. Competition for the different uses of water in a context of increasing scarcity is expected to grow, with important social implications, such as resettlements and migration, and with a high risk of tensions and conflicts. The nexus approach is then critical to secure an efficient and sustainable use of resources in an integrated manner and to mitigate the related social and economic impacts.

"Water-Energy-Food: research and innovation to address the nexus in the Mediterranean" is a European Commission side-event that will bring together institutional actors and research and innovation stakeholders to share insights into challenges and solutions for a low-carbon economy interlinked with sustainable management of resources. The discussion will reserve specific focus to the nexus challenges in the Mediterranean region.

PART I – PANEL DISCUSSION

From 14:30 to 15:30 - A high-level panel discussion where experts and institutional actors will join visitors to the EU pavilion on a discussion about the importance of research and innovation for the sustainable management of the nexus. Invited to this panel discussion are:

Moderator: Laila Mandi, *Professor of Environmental Sciences, University Cadi Ayyad, Marrakech*

Speakers:
Patrick Child, *Deputy Director-General, DG Research and Innovation, European Commission (EC-DG RTD)*
Abdel-ilah Afifi, *Directeur du Budget et des Affaires Générales, Ministère de de l'enseignement supérieur, de la recherche scientifique et de la formation des cadres, Rabat.*
Diego Pavia, *CEO of INNOENERGY Knowledge and Innovation Community (EIT InnoEnergy)*
Wail Benjelloun, *President of the Union des Universités de la Méditerranée (UNIMED)*
Nicola Lamaddalena, *Head of Land and Water Department, International Center for Advanced Mediterranean Agronomic Studies (CIHEAM – Bari)*
Alexander Ritschel, *Head of Technology, MASDAR*

PART II – INFORMATION SESSION

From 15:30 to 16:00 – An information session, highlighting selected EU research and innovation projects and initiatives with focus on the Mediterranean region. The session will count with the presence of project experts and coordinators who will be available to answer questions from visitors.

European Commission

MARRAKECH COP22|CMP12|CMA1
UN CLIMATE CHANGE CONFERENCE 2016
مؤتمر الأمم المتحدة لتغير المناخ

جامعة عبد المالك السعدي
Université Abdelmalek Essaadi

Programme

COP22 Side-event

Sustainable Universities for Sustainable Development

18 novembre 2016 de 11 :00 à 12 :30
Salle Moulouya, Zone verte
Marrakech

11:00 – 11:10	Ouverture du Side-event : Pr Houdaifa Ameziane, Président de l'Université Abdelmalek Essaâdi
	Séance I **Modérateur Pr. Houdaifa Ameziane**
11:10 – 11:40	Conférence « Rôle des universités dans le développement durable », Pr. Wail Benjelloun, Ex-Président de l'Université Mohamed V, membre UNIMED
11:40 – 11:50	Contexte du réseau des universités méditerranéennes pour le développement durable: Pr. Mariane Domeizel, Vice-Présidente, Université de Marseille
	Séance II **Modérateur : Pr. Azzeddine Midaoui**
11:50 – 12:20	Table ronde « Actions à mener pour la construction du réseau des universités méditerranéennes pour le développement durable », Intervenants: - Pr Oma Halli, Président, Université Ibn Zohr - Pr Saaid Amzazi, Président, Université Mohamed V - Pr Bouchaib Mernari, Président, Université Sultan Molay Slimane - Pr Houdaifa Ameziane, Président, Université Abdelmalek Essaâdi - Pr Azzedine Midaoui, Président, Université Ibn Toufail - Plus les représentants des autres univeristés
12:20 – 12:30	Lecture de la déclaration d'intention et approbation, Pr. Ahmed El Moussaoui, vice-président, Université Abdelmalek Essaâdi

University initiatives (2)

- Develop exemplary policies

Introduce social and environmental criteria in university purchasing policies and encourage goods and service providers who respect human values and the environment.

- Train agents ofsustainable development

Fully commit to the rol eof the university in supporting sustainable development and train green economy professionals

Undertake research for sustainable development

Engage in responsible social policies

Establish dynamic social policies: Accompanying success, respect for diversity and parity, improving work conditions, international perspective, enrich student campus life, involved in political and cultural issues ...

Participate in regional sustainable devlopment

Work with citizens, elected officials and NGO's.

UNIMED- Union des Universités de la Méditerranée

- Based in Rome
- 100 universities / 25 countries
- Facilitates international university cooperation, through
  - Capacity building
  - Joint curricula and degrees
  - Research and innovation partnerships
  - Consultancies
  - Thematic subnetworks
  - European (and other) projects (7/17 on sustainability)
  - Support for regional councils (PACA, Sardinia, Dakhla)
- Initiative for Africa

UNIMED
Initiative for Africa

Program managed through the UNIMED regional office in Rabat

Identification of the levers for change

Encourage universities to engage in sustainable development

unimed

UNIMED for AFRICA

a call for Action for African Universities

unimed

www.uni-med.net

Noor 1, Ouarzazate, Morocco

Thank you