



INTERNATIONAL CONFERENCE ON ADAPTATION METRICS FOR WATER & AGRICULTURE

— October 6th and 7th 2017 —

CONFERENCE VENUE

Mohammed VI Polytechnic University (UM6P), Ben Guerir (50km north of Marrakech)





Adaptation to Climate Changes is a major topic of climate negotiations, as reflected in article 7 of the Paris Agreement, and constitutes, together with mitigation, one of the two pillars of the **United Nations' strategy** to fight global warming.

For developing countries, and particularly the **most vulnerable** ones, the issue is to adapt to a **new world climate situation** to which they hardly contributed, by looking for ways to thwart its impacts, whereas developed countries are more focused on mitigating these effects, through the transition to a **low-carbon** or even decarbonized economy. Mitigation projects get the highest share of climate finance support, because they **quickly pay** for themselves and because a universal way of counting progress exists, expressed in tons of carbon equivalent.

By contrast, **adaptation actions** are often difficult to separate or differentiate from sustainable development actions, and absolutely impossible to dissociate since development cannot be anymore conceived without taking in **account climate changes**. Additionally, the **distinction between** adaptation and loss and damage is not always clear.

Therefore, if there is no clear **universal definition of adaptation** to climate changes, its quantification proves even more difficult. This is why adaptation metrics are **urgently needed**, to be as **precise as possible** and shared by all partners in order to ease the process of mobilization of financial support.



Focusing particularly on Africa, the COP22 in Marrakech highlighted the situation of this continent that encompasses dozens of the most vulnerable countries of the planet, which NDCs all particularly insist on Adaptation.

In this regard, the **Scientific Committee of COP22** organized an international conference on Adaptation metrics in Morocco (Skhirate, near Rabat) on September 27, 2016. The outcomes of that conference have been submitted by the Kingdom of Morocco to the **Executive Secretariat of UNFCCC**, and can be found online at: <http://unfccc.int/resource/docs/2016/apa/eng/inf02a01.pdf>.

On the other hand, during the Marrakech event, Adaptation was promoted through the engagement of donor countries to double its funding, whereas the **Climate Finance Pathway** presented by the Moroccan Presidency of COP22 considered "Increasing adaptation finance and deepening its impact" one of its core priorities.

During COP22, major initiatives have also been launched focusing on both Adaptation and Africa, like the "**triple S**" addressing **Security, Stability and Sustainability** through a set of preventing measures against drought, land degradation and forced migration in the continent, another one on Adaptation of African Agriculture (Triple A) focusing on food security in changing climate conditions, or the one on "**Water for Africa**", making this vital resource part of the **solution to climate changes**.

The COP22 presidency aims to continue its work of enhancing adaptation through a simplification of **financing processes**, and many funding bodies like the World Bank Group or the members of the International **Development Finance Club** (IDFC) initiated a reflection on developing suitable metrics in this regard. The **Fijian COP23 Presidency** is also particularly interested in adaptation to climate changes, since it champions the worries of **particularly vulnerable** small island states. This momentum calls for the organization of a second conference on adaptation metrics, which the COP22 decided to organize together with **Mohammed VI Polytechnic University**.



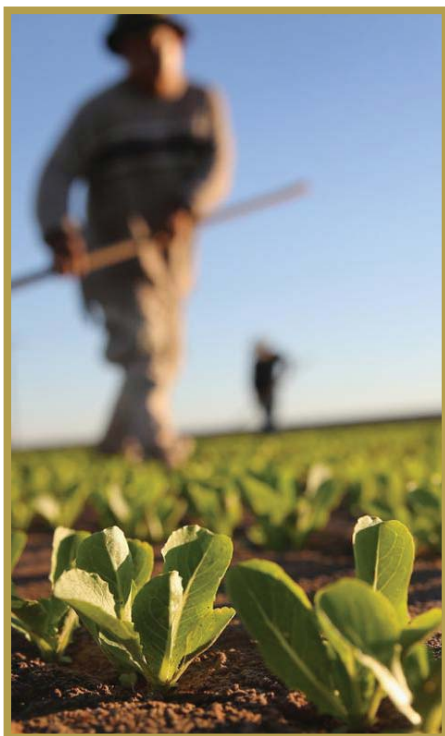


The first conference on **Adaptation metrics** included specific focus on i) resilience, ii) sectorial and iii) Sustainable Development Goals perspectives.

The second focus, based on a **sectoral approach**, proved to provide concrete indicators, the only limitation being that they are sector specific. On one hand, **the opportunity** for in-depth discussions about sectoral metrics is there, on the other hand Water and Agriculture are the top two adaptation priorities expressed in **NDCs**, according to a **UNFCCC** survey.

This second conference will thus focus on Adaptation metrics for **Water and for Agriculture**, each one separately, even though there are obvious bridges between both sectors.

The main **objective of the conference** is to provide a discussion platform between finance institutions, research scientists and the actual project holders, **especially from the African continent**, in order to convene a clearly defined common vision of rules and indicators regarding metrics for these two sectors.



THE TARGET AUDIENCE FOR THIS CONFERENCE IS:

- **INTERNATIONAL FINANCIAL INSTITUTIONS:**
Particularly the specialized funds (GCF, GEF, AF), the Multilateral Development Banks (WBG, AfDB, BEI, EBRD, IDB, KfW...) and the members of the International Development Finance Club.
- **NATIONAL FINANCIAL INSTITUTIONS:**
Stakeholders of the Moroccan roadmap aligning the finance sector with sustainable development (AMMC, ACAPS, CFC, Casablanca Stock Exchange, GPBM, FMSAR)
- **PROJECT HOLDERS:**
Private or public water operators (ONEE, Veolia, Suez...), chambers of Agriculture, national development agencies, NGOs, territorial collectivities... in particular from the African continent
- **THINK TANKS:**
IDDRI, IISD, WRI, ODI, DIE, OCPPC, IDRC.
- **NATIONAL OR INTERNATIONAL ORGANIZATIONS, IN PARTICULAR OF THE UN SYSTEM:**
IOM, GIEC, FAO, UNDP, UNEP, UNESCO, WHO, OECD, IOM, AFD, GiZ, JICA, ACDI, EU, US AID...
- **MINISTRIES OF WATER AND OF AGRICULTURE:**
Especially from the African continent.
- **CONCERNED NATIONAL STATE DEPARTMENTS:**
Moroccan ministries of Agriculture, Water, Finance, Sustainable Development, Interior, Direction of National Meteorology...
- **ACADEMICS:**
Universities, Engineering Schools and specialized institutes (INRA, INRH, UN-Water, IRD, IAIE-ONEE, students and researchers (particularly from Mohammed VI Polytechnic University).

LAYOUT OF THE CONFERENCE



The conference will take place over two days around a series of **focused technical panels** to discuss specific matters related to the sectors of Water and Agriculture.

After an opening session on the first day to set the scene, each day will consist in **two panels of one hour each**, followed by corresponding break-out sessions in the afternoon. An optional local field visit will be offered to participants who do not wish to attend the break-out sessions.

The panels will include four to five presentations (from project holders, development agencies, international experts, **NGOs** or academics) sharing experiences of measuring adaptation, with challenges being considered as much important as are successes.

For each day, one panel will be devoted to **productive metrics** of the sector (measuring performance in terms of growth or efficiency) while the other will tackle **resilience metrics of the sector** (how effects of climate change can be prevented and reduced).

Each panel will be discussed in the afternoon in one hour **break-out sessions**, the participants being segregated in two groups while each of the two sessions of the day will be **discussed in parallel with the other**, twice subsequently.

The outcomes of these four break-out sessions will be restituted at the closing session of the conference, in an open debate with **financial institutions**.

The call for posters will enable additional presentations to be displayed throughout the **various digital screen** at the conference venue, while the six plenary sessions will be webcasted thus could be **followed from anywhere in the world**.



VENUE OF THE CONFERENCE



The conference will be hosted at the brand new facilities of **University Mohammed VI Polytechnic (UM6P)** in Ben Guerir, 50 kilometers North of Marrakech.

This **Green, Knowledge Based, & Impact University** has been recently inaugurated by **His Majesty King Mohamed VI** in January 2017. This young university as a world class academic educational and research system, and a promising **R&D** and Innovation prospects leading to technological solutions, is addressing the African continent's issues and challenges especially those associated the nexus **water energy agriculture** for food security, taking into account climate changes within the framework of sustainable development.

The **UM6P** has unique features in its living labs (real scale facilities) concepts related to **green energy, experimental farm, advanced experimental mine, chemical innovation hub**,... amongst others. In this semi-arid region, climate changes are easily measurable through increased heat and water scarcity.

Beside exploring new concepts of **sustainable development**, like the green city concept, the university is located in an environment surrounded by various examples of sustainable **water use and agriculture**, as well as to the **Green Energy Park**, testing new solar energy techniques. Participants to the conference will be staying mostly in Marrakech, and a transportation system will be **organized to Ben Guerir** forth and back.



PRELIMINARY PROGRAM OF THE CONFERENCE

The Conference is scheduled to take place at Mohammed VI Polytechnic University, in Ben Guerir, on October 6 and 7.

DAY 1 - FRIDAY, 6 OCTOBER - WATER

08h00 - 08h45

TRANSPORTATION MARRAKECH-BEN GUERIR

08h45 - 09h15

RECEPTION / REGISTRATION

09h15 - 10h15

OPENING CEREMONY:

WELCOME AND OPENING REMARKS:

- Driss Ouazar, UM6P University Provost
- Salaheddine Mezouar, COP22 President

KEYNOTE SPEECHES:

- Mohammed Benyahia, Secretary General for Sustainable Development
- Abdalah Mokssit, IPCC Secretary
- Yacine D. Fal, Deputy Director General, North Africa, African Development Bank
- Balgis Osman-Elasha, AfDB CC Expert - Addressing Adaptation in Africa: AfDB efforts

10h15-10h30

SETTING THE SCENE (by COP22 SCIENTIFIC COMMITTEE)

COP22 2016 Conference on Adaptation Metrics: Restitution (Karim Anegay)
The COP22 climate finance pathway (Siham Ayad)
Conference Outline (Karim Anegay)

10h30-11h45

SESSION 1: WATER MOBILIZATION & EFFICIENCY (Moderator: Asmerom Gilau, Epsilon Innovation Group, USA)

1. « Influences du climat sur la disponibilité des ressources en eau dans un contexte de contamination et propositions de mesures d'adaptation »
Joël Tossou, Direction Générale de l'Eau, Benin
2. « Unpacking the efficiency of drip irrigation – examples from North Africa »
Marcel Kuper, CIRAD, France
3. « Utilisation des stériles des mines de phosphates pour atténuer la pollution des ressources en eau en climat aride et semi-aride: du laboratoire au pilote »
Rachid Hakkou, UMR UCA-UM6P, Morocco
4. « Mesurer les paramètres de la gestion socio-territoriale de l'eau, un défi à relever »
Thierry Ruf, IRD, Morocco
5. « Planification et Gestion de l'Eau au Maroc, Enjeux métriques de l'Adaptation »
Mounia Benrhanem, Secrétariat d'Etat à l'Eau, Morocco

11h45-12h00

COFFEE BREAK

12h00-13h15

SESSION 2: PROTECTION AGAINST WATER HAZARD (Moderator: Driss Ouazar, UM6P University Provost)

6. « The Vulnerability Reduction Production Manager - Flood Defence »
Karl Schultz, The Higher Ground Foundation, UK
7. « Modelling to assess water resources »
Charlene Gaba, Université Abomey Calavi, Benin
8. « Météorologie Nationale : La prévention des risques climatiques »
Abdallah Nassif, DMN, Morocco
9. « Global Centre of Excellence on Climate Adaptation (GCECA): towards excellent metrics »
Rogier Vogelij, GCECA, the Netherlands
10. « Climate change and water valuation in Souss-Massa region: Which management and adaptive measures »
Lhoussaine Bouchaou, UIZ Agadir, Morocco

13h15-14h30

LUNCH

14h30-15h30

BREAK-OUT SESSION 1= WATER MOBILIZATION & EFFICIENCY

Room # 1 and Room # 2

15h30-15h45

COFFEE BREAK

15h45-16h45

BREAK-OUT SESSION 2: PROTECTION AGAINST WATER HAZARD

Room # 1 and Room # 2

14h30-16h45

FIELD VISIT FOR PARTICIPANTS NOT TAKING PART OF THE BEAK-OUT-SESSIONS

16h45-17h30

TRANSPORTATION BEN GUERIR-MARRAKECH

17h30-18h30

VISIT OF THE MUSEUM OF WATER IN MARRAKECH

DAY 2 – SATURDAY, 7 OCTOBER - AGRICULTURE

08h00 - 08h45 → **TRANSPORTATION MARRAKECH-BEN GUERIR**

08h45 - 09h30 → **COFFEE /REGISTRATION**

09h30 - 10h45 → **SESSION 3 : AGRICULTURAL WATER & AGROECOLOGY**
(Moderator: Amserom Gilau, Epsilon Innovation Group, USA)

11. « Techniques spatiales et efficence de l'eau d'irrigation »
Abdelghani Chehbouni, IRD, Morocco
12. « The saved wealth, saved health approach: a case study of the adaptation potential of irrigation in the agricultural sector in Kenya »
Matthias Krey, Perspectives, Germany
13. « Harnessing and transitioning to ecological intensification to improve performances and efficiency of dryland agricultural systems »
Rachid Mrabet, INRA, Morocco
14. « Spatiotemporal monitoring of meteorological and agricultural drought in Morocco »
Hicham Ezzine, UM6P University, Morocco
15. « Les ressources microbiennes telluriques : des outils biologiques pour réhabiliter des ols dégradés »
Robin Duponnois, Université de Montpellier, France

10h45 - 11h00 → **COFFEE BREAK**

11h00 - 12h15 → **SESSION 4 : CLIMATE RISKS AND HAZARDS FOR AGRICULTURE**
(Moderator: Riad Balaghi, INRA, Morocco)

16. « Improving irrigation performance against water hazards »
Mohammed Hakim Kharrou, ORMVAH Marrakech, Morocco
17. « L'assurance agricole au Maroc »
Abderrazak Hsaien, MAMDA, Morocco
18. « Increasing Morocco's Water & Agriculture Resilience Through Adaptation Measurement Tools for Decision Making »
Asmerom Gilau, Epsilon Innovation Group INC, USA
19. « Flood Forecasting Tools : Models, Uncertainties, Data »
Nabil El Moçayd, UM6P, Morocco
20. « Climate Change impacts on food production in subSaharan Africa »
Adebola Adedugbe, Farm Ideas, Nigeria
21. « Risques climatiques et processus d'adaptation du secteur de l'agriculture du Niger »
Mamoudou Idrissa, CNEDD, Niger

12h15 - 13h30 → **LUNCH**

13h30-14h30 → **BREAK-OUT SESSION 3: AGRICULTURAL WATER & AGROECOLOGY**

Room # 1 and Room # 2

14h30-14h45 → **COFFEE BREAK**

14h45-15h45 → **BREAK-OUT SESSION 4 : CLIMATE RISKS AND HAZARDS FOR AGRICULTURE**

Room # 1 and Room # 2

15h45-16h30 → **COFFEE BREAK**

CLOSING SESSION RESTITUTION OF THE OUTBREAK SESSIONS

16h30-18h00

Asmerom Gilau , session 1:	Water mobilization & efficiency
Driss Ouazar , session 2:	Protection against water hazards
Rachid Mrabet , session 3:	Agricultural water & agroecology
Riad Balaghi , session 4:	Climate risks and hazards for agriculture

OPEN DEBATE WITH FINANCIAL INSTITUTIONS (MODERATORS: JOUMANA ASSO, CLIMA CAPITAL PARTNERS, USA)

1. **Said Mouline**, Head of PPP at COP22 Committee
2. **Yacine D. Fal**, Deputy Director General, North Africa, African Development Bank
3. **Stephane Zimmermann**, World Bank Group
4. **Leila Mikou**, Director of Sustainable Development, CDG Capital
5. **Meryem El Andaloussi**, Agence du Développement Agricole
6. **Siham Ayad**, COP22 Scientific Committee Principal Advisor on Climate Finance

18h30-19h15 → **TRANSPORTATION BEN GUERIR-MARRAKECH**





MARRAKECH 2016

COP22 | CMP12 | CMA1

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