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Water Education through the initiative «EsD at Mohamed V University» - Morocco



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Regional Session INR 4.5 MED
*Water Education and capacity building:
powerful policy tools in addressing the water agenda*



Outline

- Introduction
- The water challenges in Morocco
- The case study : Water Education through the initiative:
EsD at Mohamed V University
- The water and education interface
- The Challenges
- The Lessons learnt
- Next steps
- the Key message to WWF7

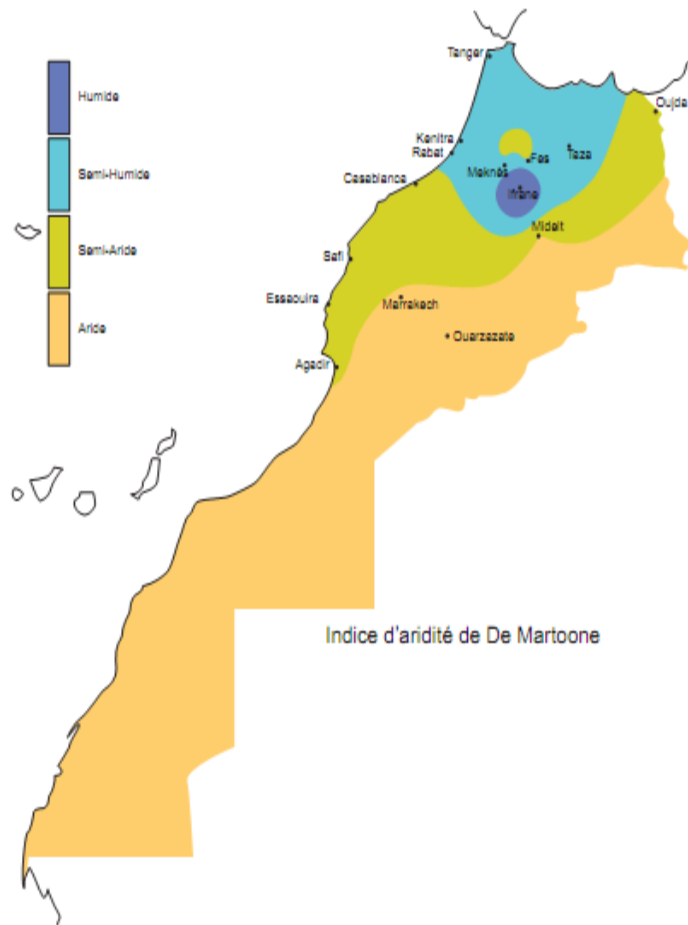
Introduction : Water resources in Morocco are characterized by :

- Quantitative and qualitative deterioration of water resources
- The major party of the country : arid and semi arid Climate
- the rainfall is irregular in time and space
- increasing pressure : overexploitation and pollution
- Impact of the climate change & the years of the drought which have recently become more frequent
- The water access generalization especially in rural area
- Excessive pumping of the groundwater

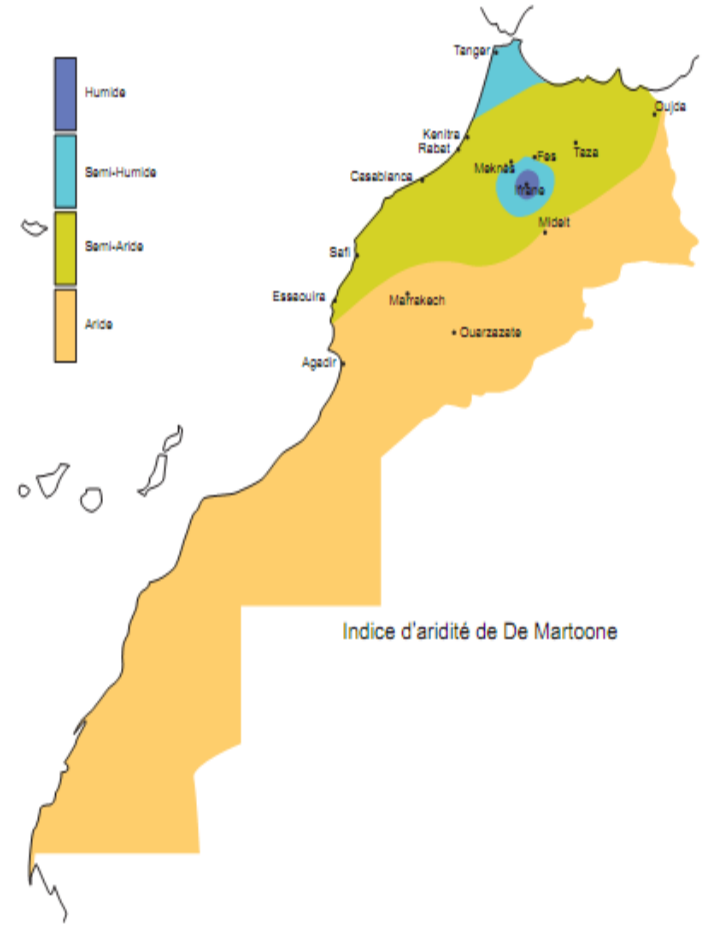


Extension of the arid climate in the country

Période 1961-1970



Période 1991-2000

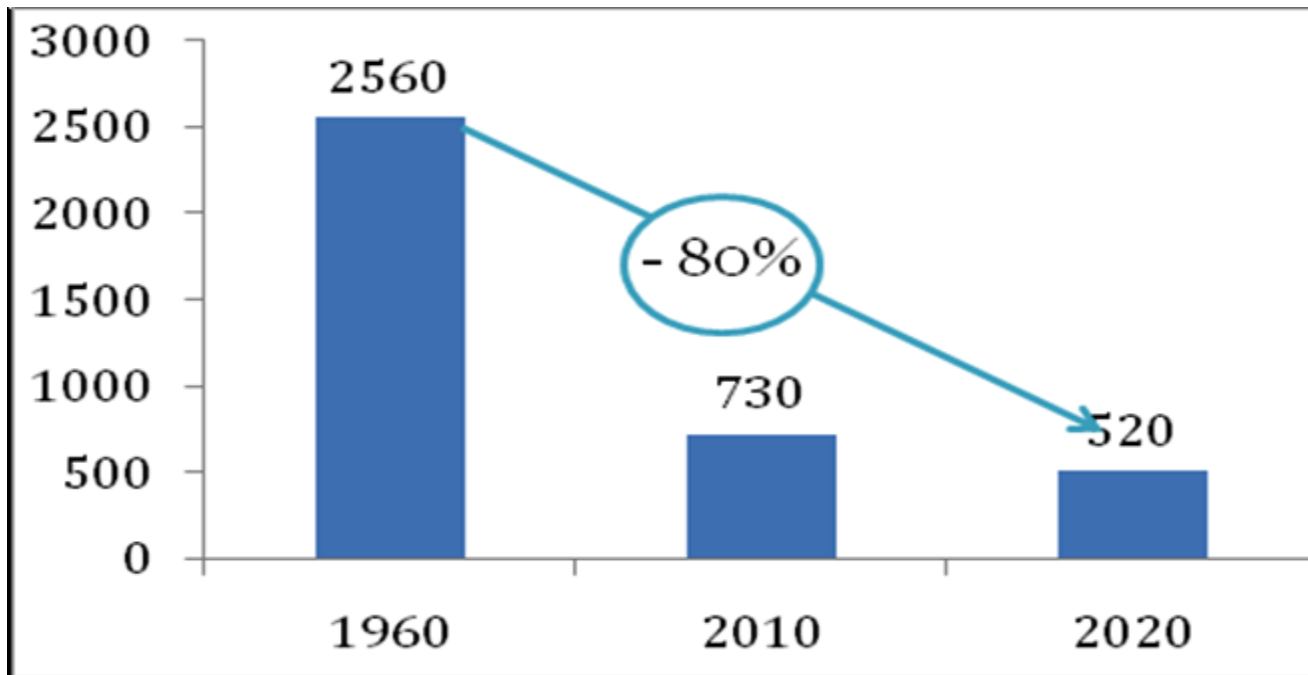


Source: PNLRCR / Département
Environnement 2009

Water resources in Morocco

- Annual hydric potentiality: **22 billions m³**, among which:
 - **Surface water: 18 billions m³**
 - **Ground Water: 4 billions m³**
- **730 m³**/ per capita/ year: below the WHO threshold
- The situation will be more worrying in the future **530 m³ by 2030**

one feels already the water stress



Source : Département
Environnement 2012

The case study :
Water Education through the initiative of
EsD at Mohamed V University
called Green University

The case study ID

- Formal education & extra activities through an initiative called : «**EsD at Mohamed V University Green University**»
- **What:** water issues in Morocco and in the region of Rabat- Sale –Zemmour-Zaer /
- Adoption & Integration of a transversal «EsD» module in the teaching activities at graduate level in 4 institutions: engineering , law & education (ENSET, FSJES, FSE, FMPH)
- The water aspect is present in this teaching module

The case study ID

- **When** : Since 2013
- **Target groups**: students of Engineering sciences, social sciences and languages studies + montly meetings – debate with professors, elected representatives, NGO and the media

The water education through teaching and research activities

- Objectives:

- To make students sensitised, informed and educated about water issues (the current situation, the challenges, the management methods, what is expected from the different actors as well as the citizen)
- To persuading & convince to behavior change
- To promote values of responsibility, solidarity, prevention, participation and action
- To promote the scientific research related to the ESD, including water (Master's degree and PhD levels)

Formal water education : How ?

Target public:

The students of the Master's degree in 3 university institutions: engineering sciences, social sciences and law

Methodology:

Theoretical lessons and practical demonstrations within the campus in field visits, laboratory, student's projects (Each student has to prepare water project, which must address one of the 12 moroccan regions or other areas outside of Morocco

Non formal water Education through the University's interaction with its environment

Monthly Fora dealing with matters related to the EsD, including water and the modes of its management

Aim: Initiate and develop public debate & participation on the subject of water good management

Target public:

- The administration
- The civil society
- the organizers of summer camps
- The educators and the youth
- Media
- Municipalities
- The stakeholders: water users,
- the private sector ..



water and Education interface

1. Enhancing awareness & building capacities to analyze, to evaluate the problems of the water in the different geographical areas
2. Improving attitudes and skills towards a better management of water resources
3. Acting individually and collectively for water protection : economy, preservation, fight against pollution, rehabilitation, mobilization of additional water resources
4. Advocating in order to improve institutional & legal framework & water governance
5. Promoting the scientific research in favor of IWM
6. Involving all relevant stakeholders & the large public in the measure of good water management
7. Considering the campus as demonstrative space and laboratory to educate on the water issues

Water Education challenges

- Institutionalization, and ownership of the initiative « Green University»
- Training of the trainers
- Production of educational materials
- Evaluation of the impact
- Coordination and synergy with other Institutional and non-institutional actors such as Civil society , media, schools....
- Development of partnership

Water Education outside the University

- Curricula (elementary & secondary school: Sciences, Geography, languages, citizenship education, artistic expression)
- Youth Clubs
- ONEPE & other institutional bodies
- civil society activities

Educational clubs & civil society contribution

- thematic panels
- Newscast Survey & Study
- Dissertation
- Poems
- Theatre
- Painting & Drawing
- Field trip



Students drawings



Lessons learnt

- An attention & particular interest were noted for the question of water, climate change, biodiversity and the urban environment
- Elimination of barriers between disciplines : exact sciences, social sciences and languages (through ESD as a federator & unifying module)
- Elimination of geographical barriers between universities in different areas of the country
- More positive Interaction between
 - students, educators,
 - administration, elected participants
 - media



Next steps

- Generalization of the initiative to other universities outside Rabat;
- Using more interactive educational channels and tools to reach the wide public: for example: E-learning
- Produce educational support, more suited to local & specific vulnerable zones as oases and mountains
- Evaluation of the Water Education impact in term of knowledge, skills , attitudes & behaviors related to the water issue

Message to WWF7

To achieve the IWM, Water education should be supported , reinforced in the outputs and the recommendations of the WWF7

Thank you for attention

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