

النظام الأوروبي-مديتيراني
للإعلام حول المعرفة
في قطاع المياه

National Focal Point of Morocco



Mr. Ahmed SKIM
Secretary of State in charge of Water

Nicosia May 10th 2007

Plan

- ✦ **Moroccan NFP Background**
- ✦ **Work Programme Headings**
- ✦ **Achievements**
- ✦ **Contribution in 'Water Scarcity and Droughts' Group**

Moroccan NFP Background

- ★ **Morocco has participated to the EMWIS process creation since 1996 (Euro Mediterranean Conference on Water Management, Marseille)**
- ★ **NFP of Morocco was created late 1999 at the central administrative office for hydraulics (DGH) in the Ministry of Equipment**
- ★ **Since November 2002, the NFP is domiciled at the Secretary of State in charge of Water**

Moroccan NFP Background

- ☀ **3 persons form the NFP team:
Coordinator, Data Manager and IT Manager**

- ☀ **Equipment :**

- ☀ **1 Web Server**
- ☀ **2 Work Stations**
- ☀ **Internet Access**



Work Programme Headings

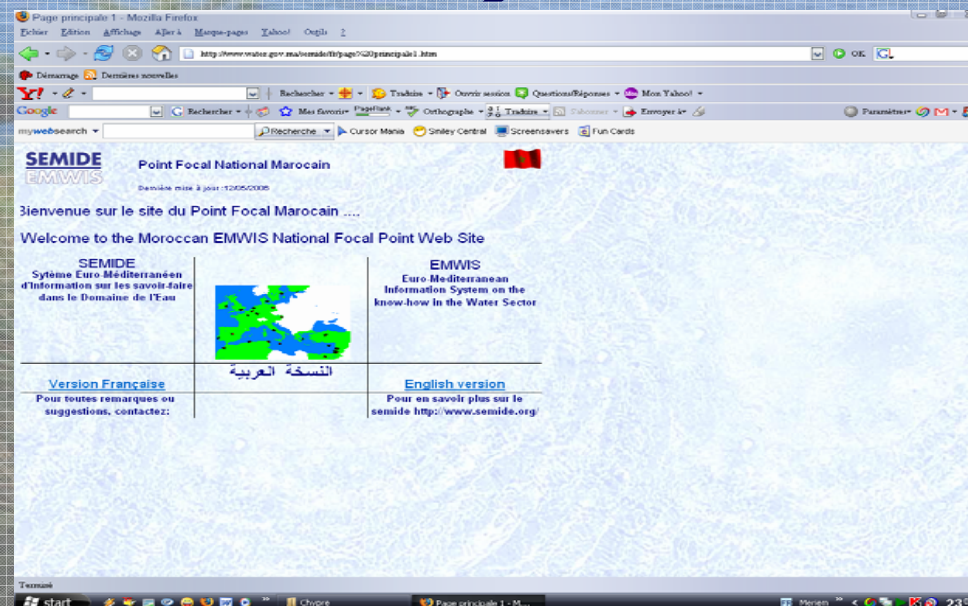
- ✦ **Web site Publication**
- ✦ **Content Translation**
- ✦ **Promotion and Growing Awareness**
- ✦ **Training and Technical Assistance**
- ✦ **Users' Needs Survey**
- ✦ **Participation to EWMIS activities**



Achievements

Web Site Publication

- ☀ **French & English versions are on line since June 2005**
 - ☀ **www.semide-ma.org**
 - ☀ **Can be reached from www.water.gov.ma**
- ☀ **2nd version is on line since 2006**
- ☀ **3rd version is ready, will be on line soon**



Content Translation

- ✦ **The Arab version of the Web site is under construction**
- ✦ **Documentation available in French is in translation to English and Arabic.**

Promotion and Growing Awareness

- ✦ A national promotion seminar was held on April 27-28 2005 in Rabat. It was linked to a water regional workshop on GIS
- ✦ A leaflet is conceived and developed. It will be published soon
- ✦ Many meetings were organized with potential stakeholders



Training and Technical Assistance

- ☀ **5 trainings were organized on Web technologies:**
 - ☀ **Windows Server 2003**
 - ☀ **Dreamweaver**
 - ☀ **XML**
 - ☀ **ASP & PHP**
 - ☀ **Coldfusion**
- ☀ **An assistance contract is signed with a local supplier to provide technical help in managing the Web site**

Users' Needs Survey

☀ **Work in progress on:**

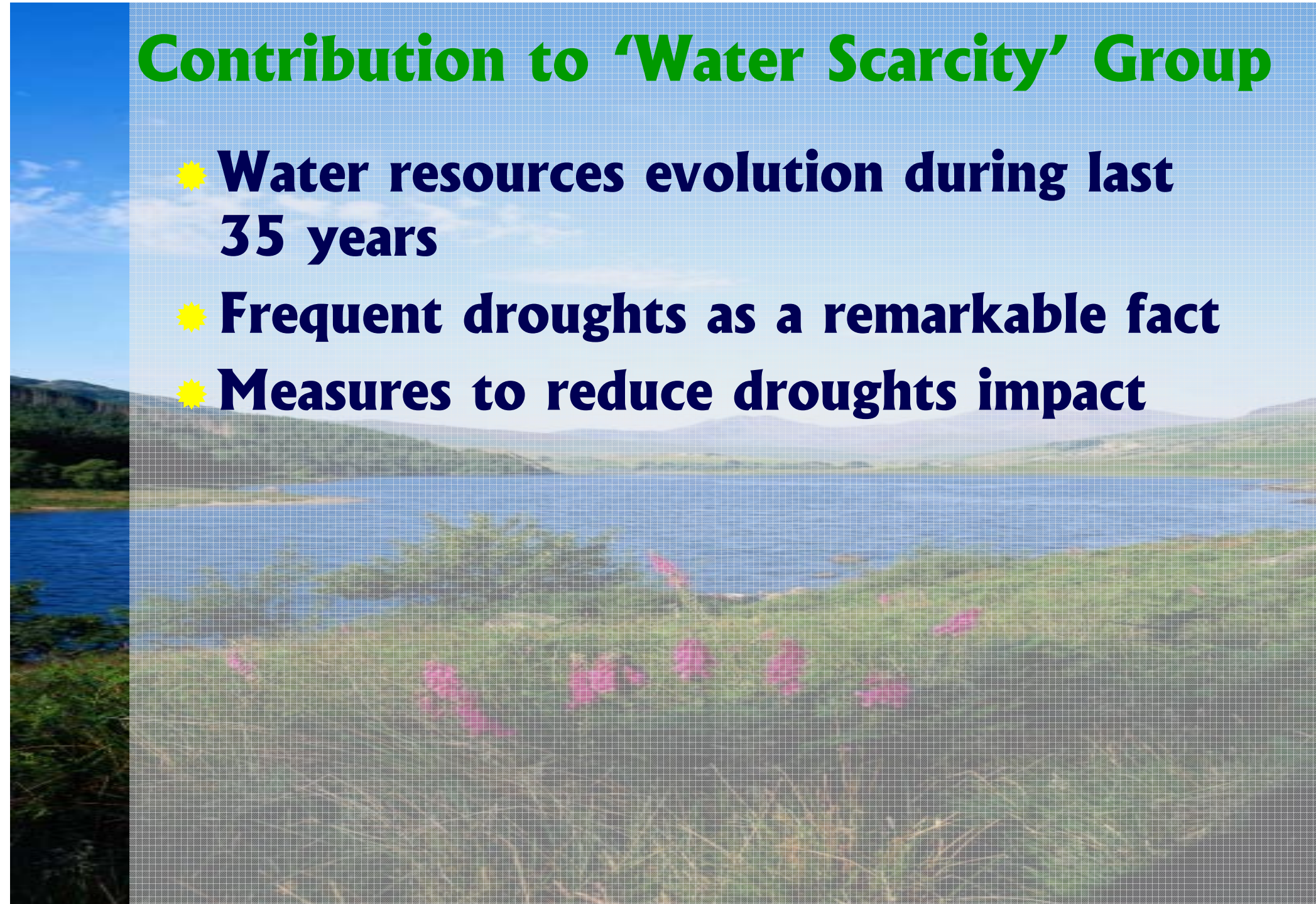
- ☀ **Web site consultations statistics**
- ☀ **On line questionnaire to identify users' needs and appraise their satisfaction**
- ☀ **Users' inquiries analysis**

Participation to EMWIS activities

- **Steering & Coordination Committees meetings (the 4th Coordination Committee meeting was held at Rabat on July 2004)**
- **Training and informative seminars**
- **Consultations to develop and improve information standards**
- **NWIS feasibility study (Experts visited Rabat on September 2005)**
- **Monitoring mission of EMWIS project (Consultant visited Rabat on May 2006)**
- **EU evaluation mission of EMWIS project (Consultant visited Rabat on December 7-9 2006)**
- **RMSU MEDA-Water mission (Representative visited Rabat on December 14 2006)**
- **Thematic studies:**
 - **Non Conventional Water Resources**
 - **Irrigation Water Management in the Mediterranean**
 - **Local Water Supply & Sanitation**
 - **Regional Water Observatory**
 - **Water Scarcity**

Contribution to 'Water Scarcity' Group

- ☀ **Water resources evolution during last 35 years**
- ☀ **Frequent droughts as a remarkable fact**
- ☀ **Measures to reduce droughts impact**

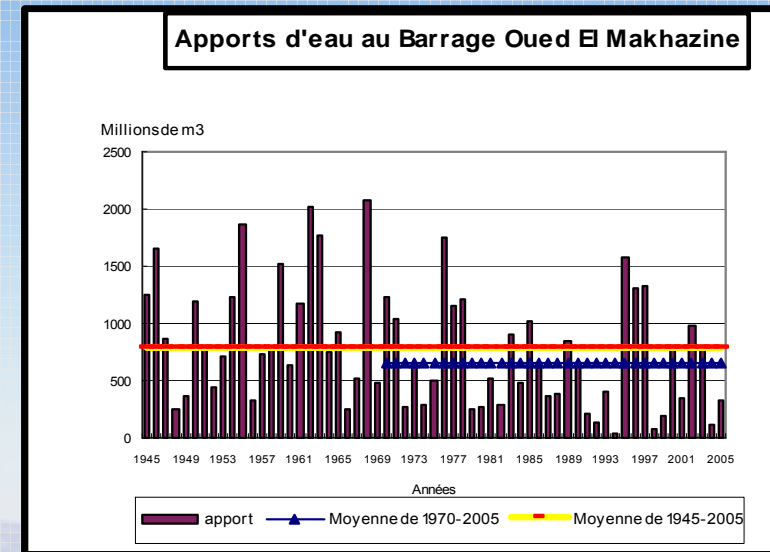
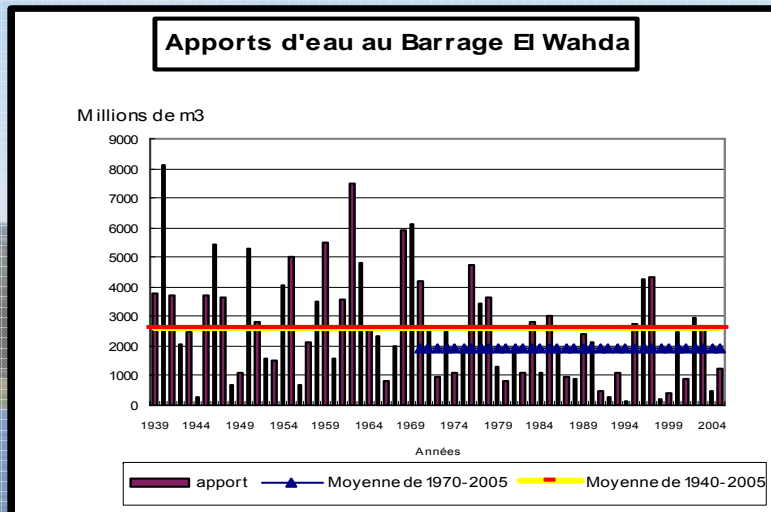


Water resources evolution during last 35 years

✓ Surface water:

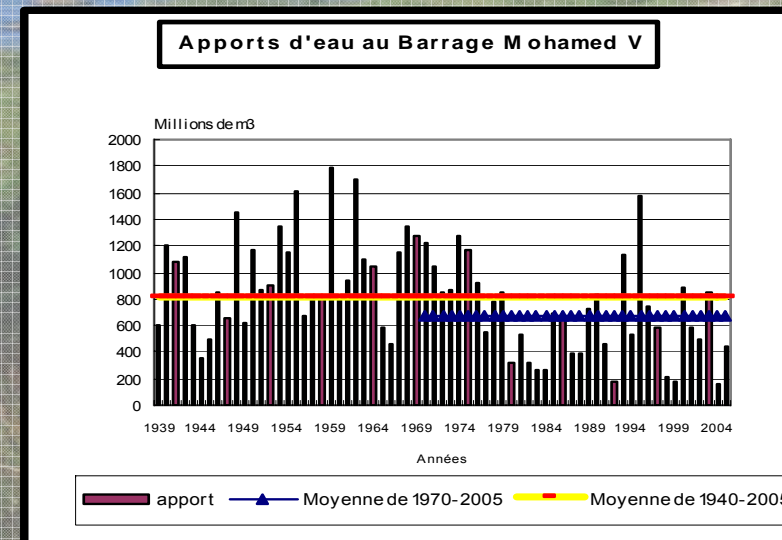
↗ Sebou Bassin:

Deficit between 1940-2005 & 1970-2005: **25%**



↗ Loukkos Bassin:

Deficit between 1940-2005 & 1970-2005: **18%**



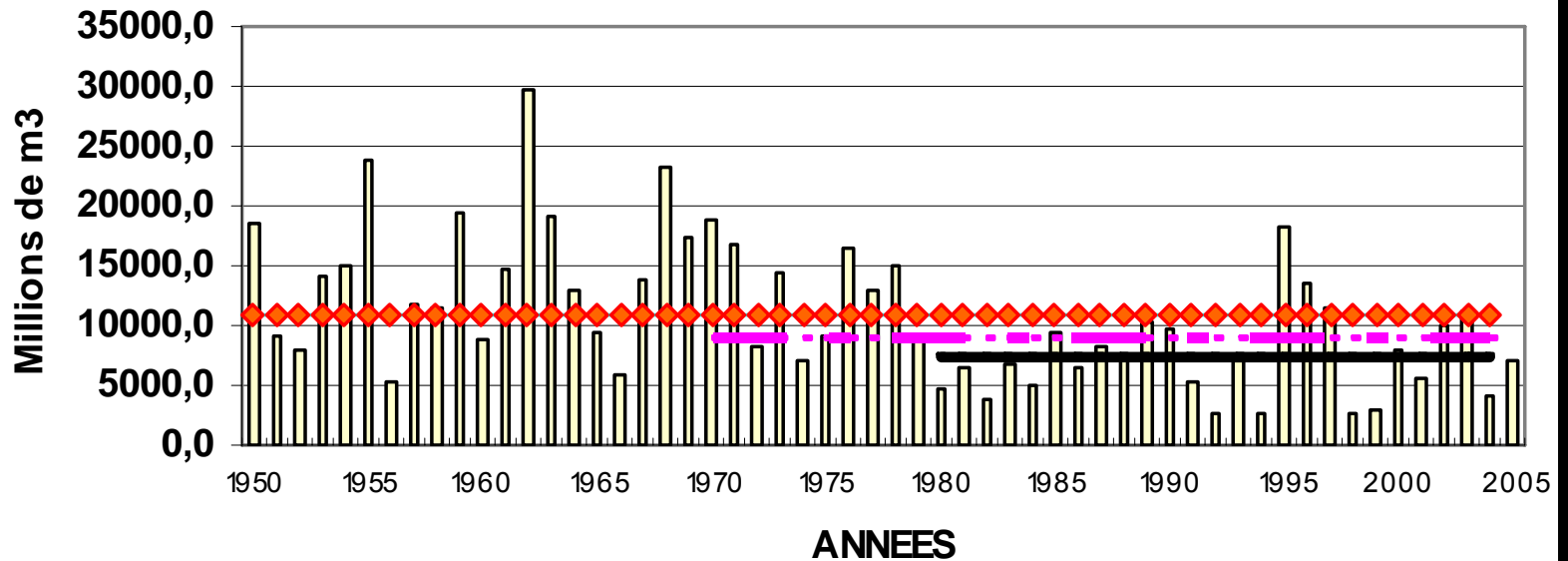
↗ Moulouya Bassin:

Deficit between 1940-2005 & 1970-2005: **18%**

Water resources evolution during last 35 years

✓ Global water input in dams since 1950:

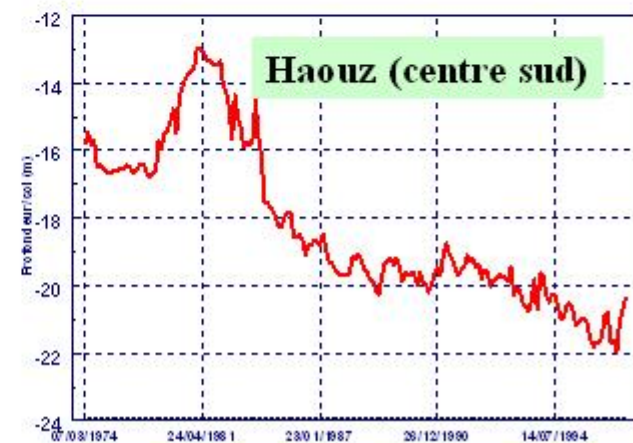
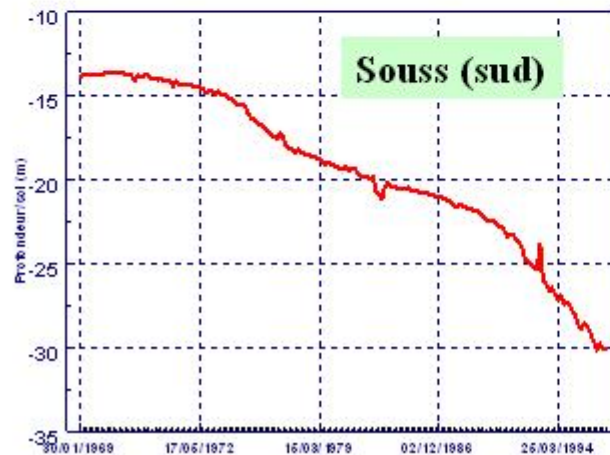
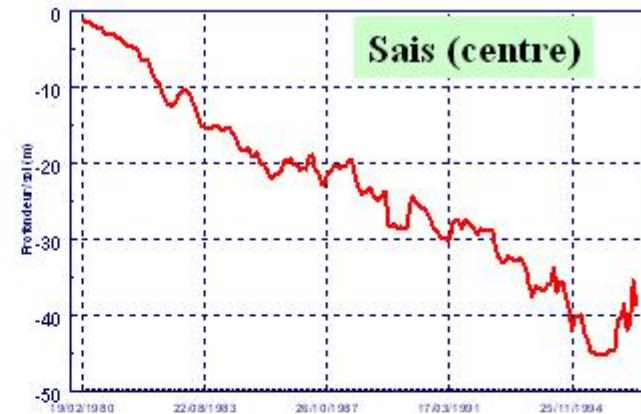
APPORTS GLOBAUX ENREGISTRES AU NIVEAU DE L'ENSEMBLE DES BARRAGES DEPUIS 1950



Deficit between 1940-2005 & 1970-2005 : **20%**

Water resources evolution during last 35 years

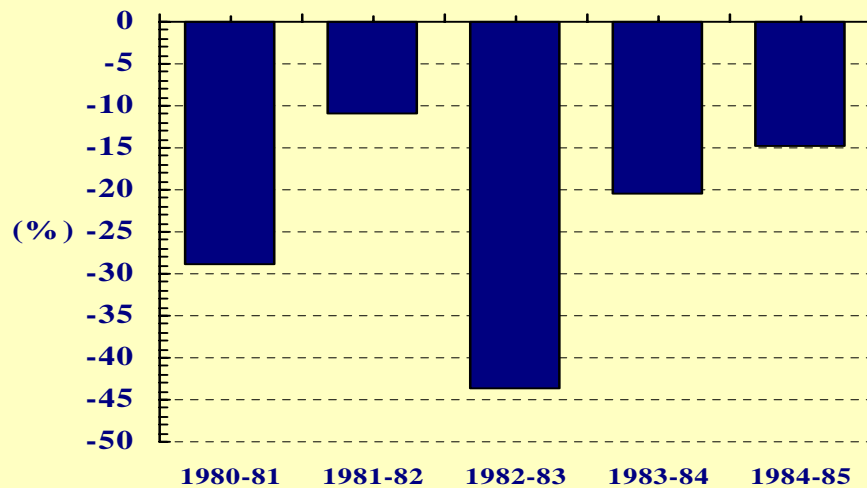
✓ Groundwater:



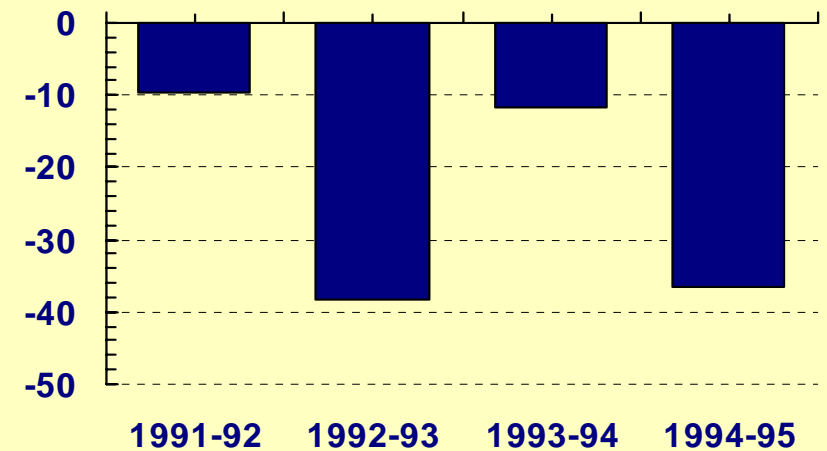
Alarming decrease in most water tables: 40m for Souss, 30m for Haouz, 60m for Saïss...

Frequent droughts as a remarkable fact

- ☀ **20 periods of droughts have occurred last 35 years, sometimes generalized to all the country:**
 - ☀ **Rainfall deficit has exceeded sometimes 60%**
 - ☀ **Length of drought period has reached 5 years and more**



Rainfall deficit between 1980-85



Rainfall deficit between 1991-95

Measures to reduce droughts impact

☀ Droughts impact:

- ☀ Difficulties in water supply in rural areas (long distance to lay in supply, diseases risks)
- ☀ Negative economic impact on agricultural sector (decreasing corn production, increasing rural unemployment)
- ☀ Drop in hydroelectric energy production
- ☀ Negative impact on water quality (decreasing self-purification, disruption of drinking water treatment stations)

☀ Measures to diminish this impact:

- ☀ Actions to improve forecasting and prevention
- ☀ Actions to raise available water resources
- ☀ Actions to protect water resources and promote water economy
- ☀ Actions to regulate and control

Measures to reduce droughts impact

☀ Actions to improve forecasting and prevention:

- ☀ Enhancing water resources monitoring
- ☀ Developing research to forecast droughts
- ☀ Elaborating maps for vulnerable areas to droughts

☀ Actions to raise available water resources:

- ☀ Carrying on dams construction programme with adaptations to climatic changes context
- ☀ Transferring water from regions showing excess to regions in deficit
- ☀ Developing artificial recharging of water tables
- ☀ Exploring deeper water tables
- ☀ Developing non conventional water resources as reuse of waste water, desalination of groundwater and sea water
- ☀ Generalizing the access to water in rural areas (PAGER)

☀ Role of dams in the protection against droughts:

- ☀ Water supply
- ☀ Water tables recharging

O. EL MAKHAZINE



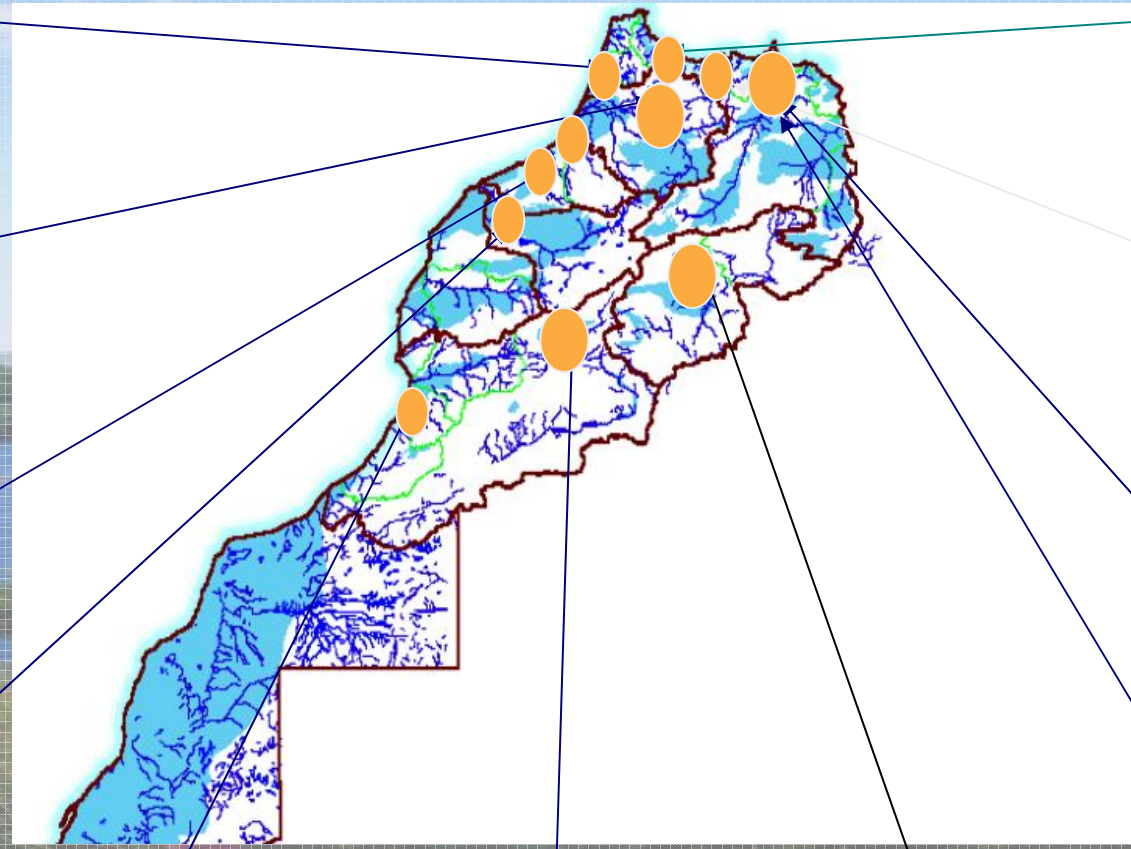
AL WAHDA



S. M. BEN ABDELLAH



AL MASSIRA



SMIR



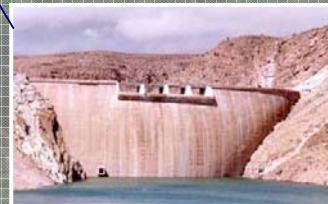
M. B. A. KHATTABI



MCHAMED V



HASSAN II



Y. BEN TACHFINE



MANSOUR EDDAHBI



HASSAN ADDAKHIL



Measures to reduce droughts impact

☀ Actions to protect water resources and promote water economy:

- ☀ Protecting water resources against pollution
- ☀ Struggling against overexploitation of groundwater
- ☀ Safeguarding hydraulic assets
- ☀ Improving distribution networks efficiency
- ☀ Establishing differential pricing to promote efficient use of water
- ☀ Adapting cultivation and irrigation techniques to the context of water scarcity
- ☀ Growing public awareness about social and economic value of water

☀ Actions to regulate and control:

- ☀ Establishing regulations tools to prevent and manage exceptional situations of water scarcity and droughts
- ☀ Making a real enforcement of the water law

Measures to reduce droughts impact: Conclusion

- ☀ **Moroccan water policy adopted since 1960s played a significant role in mastering the impacts of the recent severe droughts.**
- ☀ **The coming droughts that the country would face should have greater impact, especially in a context of water scarcity, socio-economic development and climatic changes.**
- ☀ **So, it's fundamental to carry on efforts to enforce an integrated policy of sustainable development of water resources.**

Conclusion: Encouraging results of EMWIS project

☀ At national level:

- ☀ Further occasions to enhance relationships between intervening parties in water sector
- ☀ Knowledgeable about MEDA-Water projects run in the country
- ☀ Additional motivation to implement NWIS

☀ At international level:

- ☀ Knowledgeable about institutional organizations of water sector in other countries
- ☀ Sharing experiences and know-how with Mediterranean countries
- ☀ Promoting the country abroad and providing information thanks to the NFP Web site
- ☀ Developing an international network thanks to EMWIS memberships

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شكرا على انتباهكم

Merci de votre attention

Thank you for your attention

