

EMWIS Flash N°74, October 2009

Released 26/10/2009

Language English

EMWIS Flash - October 2009 Euro-Mediterranean Information System on the know-how in the Water Sector EMWIS is a program of the Union for the Mediterranean . For further information:

<http://www.emwis.net> Monthly Flash produced by the EMWIS Technical Unit- OIEAU , CEDEX , SOGESID - It is available in English , French & Arabic . (French & Arabic versions are available few days later) ===== In this issue N74 (

<http://www.emwis.net/thematicdirs/eflash/flash74>) ===== HEADLINE 1- Conclusions of the Mediterranean Joint Process working group on water monitoring, 6 Oct'09, Beirut IN BRIEF 2- Contribution of local and regional authorities to Med Strategy for Water, 23-24 November, Lyon 3- INBO 8th World General Assembly, Dakar (Senegal); 20 to 23 January 2010 4- The Marseille Center for Mediterranean Integration (MCMI) was launched 5- Jordan and Syria discuss water sharing issues 6- Palestine: Gaza water system on verge of collapse 7- Egypt: AfDB Approves EUR 53 Million Loan to Finance Waste Water Treatment Project 8- Egypt: Disaster looms for Delta region 9- Tunisia: New roads and projects to protect cities against floods 10- France - Grenelle 2: the Senate adopted the part related to water and sanitation 11- France: Master Plan for Land and Water Management (SDAGE) 2010-2015 of the Rhone-Mediterranean basin adopted 12- Spain: EIR completed for Foix desalination plant 13- Spain Takes Treaty Past Half Way Mark 14- The 3rd ACWUA Best Practice Conference & Exhibition: Non-Revenue Water Management in the Arab Region 15- Climate Change: high adaptation costs for water sector, according to the World Bank 16- Claim for integrated water research policy in Europe 17- How much water is used for irrigation in European agriculture? 18- Key role for Landsat in water-use maps 19- Satellite data instrumental in combating desertification 20- Amid widespread droughts and crop failures, satellites could help prevent famines 21- Easy as Soap and Water: Clean Hands Save Lives 22- A need for a SMOS-like instrument with a spatial resolution adapted to water resource management 23- EMWIS calls for collaborations to update its EMWIS multilingual water thesaurus NOMINATIONS and VACANCIES PUBLICATIONS CALL FOR TENDERS and PROPOSALS CALL FOR PAPERS TRAINING EVENTS BRIEF EMWIS SITE MAP CONTACT US / COMMENTS

===== HEADLINE

===== 1- The meeting of the water monitoring working group of the Joint Process between the EU WFD and Med-EUWI took place in Beirut on 6 October 2009 afternoon, in the framework of the international seminar on river basin management in the Euro-Mediterranean area and the General Assembly of the Mediterranean Network of Basin Organisations . Experts from 12 countries took part in this meeting that focused on the analysing of the first results of the survey carried out among Mediterranean Partner Countries on the status of water monitoring networks and programmes as well as the preparation of a preliminary report. Output of the working group will be provided to water expert group as a contribution to the preparation of the water strategy of the Union for the Mediterranean as well as for the Horizon 2020 initiative related to the Mediterranean sea depollution. Participants agreed to revise the mandate to focus on quality issues (water quantities being addressed by the Water Scarcity & Drought working group), to contribute to the working group's report in particular with case studies and to identify potential joint indicators based on current parameters monitored in the countries. The next working

group meeting will take place during the first trimester 2010, if possible in relation with EU CIS-WG on monitoring, meanwhile electronic discussion will go on among members . Finally the survey synthesis will be completed on the basis of additional information to be sent by participants, and an updated working group membership will be published on the website. Additional members are welcome to ensure the representativeness of quality monitoring purpose and to involve research and development project representatives. Further information on EMWIS website .

===== IN BRIEF (Full news)

===== 2- The Mediterranean Committee of United Cities and Local Governments is organising an international conference on 23 and 24 November 2009, in Lyon (France). This conference will focus on: the contribution of local and regional authorities to the water strategy of the Union for the Mediterranean. This meeting aims to articulate the recommendations coming from local and regional authorities and to identify the actions and projects of decentralized cooperation likely to be presented at the Union for the Mediterranean while reinforcing the support from important donors for the projects led by Mediterranean authorities. Further information on EMWIS website . 3- The 8th World General Assembly of the International Network of Basin Organizations - INBO - will take in Dakar (Senegal) from 20 to 23 January 2010, at the invitation of the Organization for the Development of the Senegal River - OMVS. The World General Assembly of DAKAR will be organized around the large strategic topic of the necessary implementation of programs for adapting to the consequences of Climate Change in the basins of rivers, lakes and aquifers, either local, national or transboundary. The meeting is open to all INBO Member Organizations and Permanent Observers, and also to all the water Administrations and organizations, interested in Integrated Water Resources Management at the level of river basins over the world. A General Assembly of the African Network of Basin Organizations - ANBO - will also take place in DAKAR on 19 and 20 January 2010. Further information on EMWIS website . 4- The World Bank, together with the European Investment Bank, the Governments of Egypt, France, Jordan, Lebanon, Morocco and Tunisia, and the City of Marseille, launched the Marseille Center for Mediterranean Integration (MCMI). The Center will facilitate access to best knowledge and practices and improve cooperation to support development policies geared towards greater integration and convergence in the Mediterranean Region. The Center will offer a platform for public and independent institutions from the region to discuss these challenges learn from each other and strengthen local, national and regional capacities to manage interdependence. The MCMI areas of engagement include five clusters with 14 programs focusing on: urban and spatial development; sustainable development; transport and logistics; skills, employment and labor mobility challenges including youth and; and knowledge economy, innovation and technology. Further information on EMWIS website . 5- Jordan and Syria discusses issues of common interest, with the sharing of water from the Yarmouk River Basin topping the agenda, according to a Jordanian government official. Meetings on cooperation in water issues between the two neighbors are part of the Joint Jordanian-Syrian Higher Committee meetings, which took place in Damascus recently. The study, which will be carried out jointly by Jordan and Syria, seeks to evaluate the quantity and quality of water resources in the Yarmouk River Basin, identify the causes of their depletion, and propose means to protect the basin from pollution and arbitrary pumping. The study, which also aims to examine the economic impact of ongoing depletion of the basin's water sources, will take one year to complete and will be carried out by a Syrian-based public company for hydrological studies. Jordan urged Syria several times to stop the cultivation of crops upstream and downstream on the Yarmouk River as the farming activity slows the river's water flow and storage at the Wihdeh Dam. Further information on EMWIS website . 6- Gaza's underground water system is in serious danger of collapse after Israel's recent assault compounded years of overuse and contamination, according to a report from a key United Nations body. The UN Environmental Programme (UNEP) published the

report on the environmental condition of the besieged coastal strip following Israel's military assault in the area in late 2008 and early 2009, the UN News Service reported. According to the UNEP, local authorities in Gaza should take the sole aquifer, which supplies 1.5 million Palestinians with agricultural and drinking water, offline until alternative sources can be found. The UNEP estimated that more than 1.5 billion US dollars, much of it for establishing desalination plants to take pressure off underground supplies, would be needed over 20 years to restore the aquifer. Among the concerns were salt-water intrusion from the sea and the over-extraction of ground water, as well as sewage agricultural run-off. Steiner noted that some sewage run-off has been tested as toxic enough to put infants at risk of nitrate poisoning. Further information on EMWIS website .

7- The Board of Directors of the African Development Bank (AfDB) Group approved on Wednesday, 7 October 2009 in Tunis, a loan of Euro 53.33 million, to finance the Gabal El Asfar Waste-water Treatment Plant (GAWWTP) Project in Cairo, Egypt. The project objective is to improve the quality of waste-water discharged into the drainage system in Cairo East, thereby contributing to improved sanitation and a clean environment for nearly 8 million people living in the area. This phase will provide an additional waste-water treatment capacity of 500,000 cubic meters per day. The waste-water will undergo full treatment, including preliminary, primary and secondary treatment. Provisions are also made to chlorinate the effluent when all the waste-water reaching the drains is adequately treated. The proposed extension will bring the total treatment capacity at the Gabal El Asfar plant to 2.5 million cubic meters per day. Further information on EMWIS website .

8- Egypt's Delta region faces a natural disaster of massive proportions by 2020 unless urgent action is taken to better manage scarce fresh water resources and come up with solutions to mitigate the effects of rising sea levels, according to government officials. The country is facing the dual threat of water needs surpassing resources by 2017, and rising sea levels in the decades ahead inundating much of the fertile Delta region, home to 60 percent of Egypt's 78 million people. Researchers predict the Mediterranean will rise by 30-100cm by the end of the century. A one-metre sea-level rise would submerge Alexandria. Cairo has allocated US\$300 million to build concrete walls to protect Alexandria's beaches as part of a "national strategy study" to combat the coming floods. Reduced Nile water flows coupled with Egypt's rapidly growing population have already put a strain on agricultural output. Egypt's problem is compounded by the other 10 Nile basin countries demanding bigger shares of Nile water to compensate for reduced rainfall. Further information on EMWIS website .

9- The Tunisian Minister of equipment, housing and land planning, Slaheddine Malouche said his department has been working since 1992 to rehabilitate the entrance of cities for almost 784 km, an average of around 46 km per year. He recalled here that the department had undertaken since 1987 to protect more than 160 cities and urban areas against floods for investments of around 225 million dinars. Due to the recent floods in the country, the presidential decision to accelerate the work of protection against flooding, resulting in work will begin before the end of 2009 in the cities of El Guettar in the governorate of Gafsa (1.6 million dinars) and the technology hubs of Monastir and El Fejja (2.5 million dinars). For the year 2010, 5 projects to protect against flooding will be dedicated to the cities of Teboursouk, Sousse city Medenine Lsouda (Sidi Bouzid) and Tozeur with a cost of 6.8 million dinars. The budget of protection against flooding will increase in 2011 to 16.5 million dinars to reach a dozen of Tunisian cities. Further information on EMWIS website .

10- At the meeting of October 6, 2009, French senators have particularly considered chapters IV and V of the Bill Grenelle 2 on sanitation and water resources, and one on sea. The reporter, Bruno Sido, has not seen fit to amend the tax base that will serve to fuel the guarantee fund on the sludge and declared himself against amendments specifying that only are concerned the sludge actually applied to agricultural land and therefore likely to generate a risk. These amendments have been removed. The Senate removed the provision of Article 56 which rephrased the optional jurisdiction "clean" communities of agglomeration and had to limit this power to the collection, transportation and stormwater treatment and to exclude wastewater.

An amendment of the reporter, Bruno Sido, section 56 adjusts the timing of developing master plans and water management (Sdage) and patterns of land use and water management (Sage). Further information on EMWIS website . 11- The SDAGE 2010-2015 Rhone-Mediterranean Basin (Master Plan for Land and Water Management) was adopted by the basin committee. this master plan should enable the "reconquest" water quality. The Meeting of October 16, 2009 in Lyon was held under the chairmanship of Michael Dantin MEP, Community Advisor for the agglomeration of Chambry and president of CISALB, during which, the Basin Committee adopted the Master Plan for Land and Water Management (SDAGE) 2010-2015 for the Rhone-Mediterranean basin. It is planning document that sets strategy for aquatic environments in good condition in 2015. The Basin Committee also gave a favourable opinion on the program of measures associated and review of the intervention program of the Water Agency "Rhne-Mditerrane". Further information on EMWIS website . 12- The environmental impact report for the Foix desalination project in the Catalunya province of Spain has been completed and submitted to the supervisory committee. A review of the report is expected in November. Foix is one of two new Catalunyan desalination plants moving forward following the opening of the 200,000 m/d Llobregat seawater reverse-osmosis plant in Barcelona in July 2009. According to Aigus del Ter Llobregat, the utility operating the Llobregat plant, the project design for further expansion of desalination at Tordera/Blanes will be completed in November 2009. Together Foix and Tordera will add another 200,000 m/d to Catalunya's water supply. However, as D&WR discovered on a recent visit to Barcelona, only one train of the ten at the EUR 230 million Llobregat plant, built by Degrmont and DRACE Medioambiente, has so far been used, due to lack of demand. In Catalunya, desalination is very much seen as insurance against drought. Further information on EMWIS website . 13- Spain late last month boosted efforts to bring into effect an international treaty to share and protect rivers and lakes crossing or forming international borders, telling the United Nations General Assembly it was committed to jointly addressing issues of security, development and protection of the environment. The International Convention on the Non-Navigational Use of International Watercourses (UN Watercourses Convention, 1997) is the framework for resolving water disputes and promoting cooperation on water management between states. But the treaty languished for more than a decade well short of the 35 ratifications needed for it to come into effect. Spain becomes the 18th nation to ratify the convention. Spain, one of Europe's largest water users, is no stranger to international water agreements, concluding the Albufeira Convention on river management with Portugal in 1998. It is also a party to the European Water Framework Directive but, like other Mediterranean nations such as Italy and Greece is experiencing difficulties in implementing the directive. WWF-Spain is hoping that the Spanish Government will use its 2010 EU Presidency to promote ratification of the UN Water Courses Convention in addition to seeing it as an impetus to improve its performance in water management at home. Further information on EMWIS website . 14- The Third Arab Countries Water Utilities Association (ACWUA) Best Practice Conference and Exhibition: "Non-Revenue Water Management in the Arab Region" is an opportunity for leading personnel to delve deeply into the main aspects related to Non-Revenue Water (NRW). It will bring together experts from all stakeholders involved in NRW, especially operators and operational staff from the Arab Region. This Conference and Exhibition is to be hosted by the Arab Countries Water Utilities Association (ACWUA). For the local organisation, IEA-ONEP , an active member of ACWUA is in charge. The event will be realized in joint cooperation with UNW-DPC and UN-HABITAT as their Regional Activity on Capacity Development for Water Efficiency as follow-up of the recommendations of the International Workshop on " Drinking Water Loss Reduction: Developing Capacity for Applying Solutions ", held on 3-5 September 2008 in Bonn, Germany. In order to address this problem at the regional level, UNW-DPC and UN-HABITAT are jointly organizing a series of regional workshops. This is the first regional workshop in the Arab region and will ensure a programme which goes

beyond purely regional experiences. Further information on EMWIS website . 15- Water supply and flood management, ranks as one of the top three climate adaptation costs in both the wetter and drier scenario, with Sub-Saharan Africa footing by far the highest costs, says a new World Bank report. The study estimates that over the next 40 years, global net annual adaptation costs for municipal and industrial water supply will be between US\$ 10.0 billion (EUR 6.8 billion) (wetter scenario) and US\$ 11.1 billion (EUR 7.5 billion) (drier scenario). In both scenarios, Sub-Saharan Africa will have to pay nearly two-thirds of these costs. Global adaptation costs for water supply and sanitation infrastructure were estimated to be US\$ 700 million (EUR 475 million) per year. Average annual adaptation costs in the health sector for diarrhoea and malaria prevention and treatment lie in a narrow range of US\$ 1.3-1.6 billion (EUR 0.88-1.1 billion) a year over the 40-year period 2010-50. A large share of the costs of adaptation in the water supply and flood protection sector could be avoided by adopting better management and water tariff policies, the World Bank report suggests. One important lesson is that "development is the most powerful form of adaptation". Further information on EMWIS website . 16- With land degradation in dryland regions continuing to worsen, the UN Convention to Combat Desertification has agreed on scientist-recommended indicators for monitoring and assessing desertification that signatory countries must report on. The landmark agreement was reached after two weeks of negotiations involving hundreds of scientists and government ministers attending the Ninth Session of the Conference of the Parties (COP 9) of the UN Convention to Combat Desertification (UNCCD) in Buenos Aires, Argentina, from 21 September to 2 October. Desertification, land degradation and drought deprive people of food and water and force millions to leave their homes. Satellite technologies were recognised as playing an important role in achieving this objective. Further information on EMWIS website . 17- The workshop Water for Integration Integration for Water took place in Brussels on September 28, 2009. This event provided a platform for participants from different sectors to discuss barriers and needs relating to integrated water research. The workshop was organized by the Institute for Social-Ecological Research (ISOE) and the European Water Partnership (EWP). The workshop complements the policy review process initiated by the EWP in 2008, through which the Water Vision for Europe for 2030 was developed and presented at the 5th World Water Forum in Istanbul. The outcomes of the Water for Integration Integration for Water workshop will feed directly into the vision mapping process which concludes the EWPs policy review process. Further information on EMWIS website . 18- Agriculture plays a large role in the management of water in the EU. However, there is little consistent information on water use in irrigation. New EU supported research has estimated how much water is used for irrigation in European countries, providing a framework to analyse agricultural pressures on water quantity. Water scarcity is an increasing problem in the EU and the situation is expected to worsen with climate change. In the Mediterranean, irrigation accounts for more than 60 per cent of total water use, whereas in Central and Northern Europe it accounts for just 1 per cent. However, information on water use by irrigation tends to be inconsistent and varies by country. The research, conducted by the European Commission Joint Research Centre, used the crop growth model EPIC (Erosion Productivity Impact Calculator) to estimate European crop irrigation requirements. The results were then averaged nationally to produce annual figures that ranged from 53 litres per m² of irrigated land in Denmark to 1120 litres per m² of irrigated land in Spain. However, likely inefficiencies in transport and irrigation management mean that in reality the figures could be 1.3 to 2.5 times higher. Further information on EMWIS website . 19- Data from earth-observing Landsat satellites plays a central role in a new, award-winning type of mapping that tracks water use. Water-use maps help save taxpayer money by increasing the accuracy and effectiveness of public decisions involving water for instance, in monitoring compliance with legal water rights. The maps are especially important in dry western states of the USA where irrigated agriculture accounts for about 85 percent of all water consumption. The Landsat-based method can be as much as 80 percent more accurate

than traditional measurement methods. The objective nature of the technique assists these states in negotiating Native American water rights, assessing urban water transfers, managing aquifer depletion, monitoring water right compliance, and protecting endangered species. Internationally, Spain, South Africa and Morocco have already begun to employ Landsat-based water-use maps. Further information on EMWIS website . 20- The Normalized Difference Vegetation Index (NDVI) is an innovative combination of two satellite measurements that allows scientists to analyze changes in the "greenness" of Earth as viewed from space. The system itself goes back to the 1980's, however, its association with new satellite-based technology nowadays is proving to be particularly useful in some of the world's most contentious hotspots. In 2008, the U.S. Agency for International Development's Famine Early Warning Systems Network (FEWS NET) and a number of other partners used NDVI to monitor wheat yields in Iraq and Afghanistan through a persistent drought that led to the worst yields in a decade. On Tucker's maps, the sparsely vegetated areas of the Sahara and the Sahel region have NDVI values near zero. The dense jungles of Central Africa have an NDVI closer to 1, the highest value. Further information on EMWIS website . 21- Schools and communities in more than 80 countries participated in Global Handwashing Day on October 15 to remind children about the importance of washing hands with soap as a critical habit to keep disease away. Diarrheal disease and acute respiratory infections kill more than 3.5 million children under the age of five each year, according to UNICEF's State of the World Children Report. But washing hands with soap can reduce child mortality by 44 percent in the case of diarrheal disease, and 23 percent for acute respiratory infections. The Bank carries roughly 26 projects that include hygiene promotion. Further information on EMWIS website . 22- Yann Kerr was one of the scientists that proposed the ESA's Soil Moisture and Ocean Salinity (SMOS) mission. As Lead Investigator for soil moisture, his role has been to maintain the scientific integrity of the mission as it went from a paper design to a real satellite. In the interview, Yann Kerr talks about his role in the SMOS project, soil moisture estimation, potential use of soil moisture data, and the after-SMOS project. Kerr highlighted a need for a SMOS-like instrument with a spatial resolution adapted to water resource management at a finer scale or an improved sensitivity for sea surface salinity. This future mission will be called SMOSNEXT. Further information on EMWIS website . See also " Countdown to launch SMOS and Proba ". 23- EMWIS together with its French National Focal Point the International Office for Water in Limoges are planning to implement and update EMWIS multilingual thesaurus: http://www.emwis.net/portal_thesaurus ; mainly its Arabic version. Currently, this thesaurus is available in English, French, Arabic, Italian, Spanish, Turkish and Greek. We are looking for your collaboration , please do not hesitate to contact us with comments on the current version and/or proposal for new terms that should be added at EMWIS forum .

===== NOMINATIONS and VACANCIES

===== 24- The World Water Council (WWC) has announced that its members have elected a new Board of Governors. Through majority rule voting, the members elected the 36 Governors from 74 candidatures and appointed Loic Fauchon to continue to serve as President of the World Water Council. Fourteen new Governors took seat in the board, including from 3 United Nations agencies. The multi-stakeholder board includes members from 12 countries and 10 international or regional organizations who represent the five Council colleges: Intergovernmental Organizations, Governments and Governmental Authorities, Enterprises and Facilities, Civil Society and Water Users Associations and Professional Associations and Academics. Further information on EMWIS website . On the other hand, Jean-Francois Le Grand , Senator of "La Manche", and President of the General Council was elected October 15, at the position of Governor of the World Water Council. Further information on EMWIS website . 25- Four PhD and one Post-Doc researcher positions in hydrology, water management, social and human geography research: In the framework of the National Research

Programme NRP 61 the Geographic Institutes of the Universities of Bern, Fribourg and Lausanne will conjointly conduct the project AQUA MONTANA between 2010 and 2012. The main objective of this transdisciplinary study is to develop strategies moving towards a more sustainable water resources management in the Crans-Montana-Sierre region (Valais), together with actors involved. Deadline: November 15 for PhDs; December 13 for Post-doc. Further information on EMWIS website . 26- The Water Footprint Network is a young organisation that has been established by partners from academia, NGO, international organisations and business sectors in the Netherlands. It sets out to develop the water footprint methodology to arrive at shared global standards on water footprint accounting and impact assessment with the final aim to come to sustainable water management. Currently the Water Footprint Network is seeking a project manager (m/f) to strengthen its team. The deadline for sending applications is November 1, 2009 . Further information on EMWIS website . 27- Project Officer for the West African Region, IRC International Water and Sanitation Centre: You will work in a multidisciplinary team involved in action research, policy analysis, process facilitation and advocacy in support of IRC's objectives. Application deadline: 31 October 2009 . Further information on EMWIS website . 28- The Water Integrity Network Secretariat hosted by Transparency International in Berlin is looking for a highly motivated professional for the position of Senior Fundraising Coordinator . The deadline for sending applications is October 30, 2009 . Further information on EMWIS website . 29 - The UNESCO-IHE Institute for Water Education offers post-graduate courses and PhD research programmes in Delft, The Netherlands, and carries out research and capacity building projects all over the world. The Department of Water Engineering wishes to appoint a: Professor in Hydraulic Engineering and River Basin Development. The deadline for applications is 15 November 2009 (closing date). Further information on EMWIS website . 30- The Jordanian multi-disciplinary consultancy firm "Al Jidara" is bidding on a large Technical Assistance program in Jordan for Institutional Reform and Capacity building for the Jordan Water & Environment sector. The program aims at improving the management of Jordan's water resources. Al Jidara are seeking to identify professionals for long term and short term positions in the area of water sector management. The interested candidates should have a minimum of 10 years of experience in water sector management and water infrastructure and engineering preferably in the region. The application deadline for the position of Water sector specialist is: 30 October 2009 . Further information on EMWIS website .

===== PUBLICATIONS

===== 31- The purpose of the new book of Henri SMETS from the French Academy of Water "The right to sanitation in national laws" is to show that sanitation consists of a number of specific rights and obligations concerning collection and disposal of excreta and wastewater, thus compensating for the lack of specificities of applicable international law in this field. It contains a description of the right to sanitation in 16 developed and developing countries as well as a summary of international law in this area. Further information on EMWIS website . 32- The article entitled Israelis, Palestinians work together in bid to solve local water shortage , describes the history and challenges facing the Palestinian village of Wadi Fukin, but also about cooperative efforts between the 2 partnering communities of Wadi Fukin and Tzur Hadassah that are "working together to preserve the valley and protect it from the blights of the large settlement." Further information on EMWIS website . 33- Report from the WFD meeting, August 2009: The Water Framework Directive - Sharing experiences and meeting future challenges: This report is a summary of the presentations and group discussions at the WFD meeting, August 20-21, 2009. A short summary from the open seminar and side event during the World Water Week, August 19, 2009, is also included. Further information on EMWIS website . 34- The renewal of the right of public river: This book has no other ambition than to assist and support anyone - developers, local authorities, lawyers, academics, local and state elected officials - who are responsible for interpreting

and improving this right and even more generally to support the renewal of the waterway that is just beginning. Further information on EMWIS website . 35- Sustainable resource management in urban drinking water in the Greater Sousse (Tunisia): This is a communication sent to the "The Sustainable Development in the Mediterranean" Symposium held the 11th and 12th June, 2009 in Aix-en-Provence (France). It deals with the issue of the alternatives developed by local stakeholders for integrated water resources management in the Great Sousse. Further information on EMWIS website . 36- The Journal of Water Resources Management has published its Vol. 23, Issue 14, with many interesting articles, among others: Evaluation of Reference Evapotranspiration Equations Under Humid Conditions; Water Balance Approach for Rainwater Harvesting using Remote Sensing and GIS Techniques, Jammu Himalaya ; Predictive Simulation of Flow and Solute Transport for Managing the Salalah Coastal Aquifer ; GIS-Integrated Rice Irrigation Management Information System for a River-Fed Scheme. 37- The World Development Indicators (WDI) 2009 is the statistical benchmark that helps measure the progress of development. The WDI provides a comprehensive overview of development drawing on data from the World Bank and more than 30 partners. It includes more than 800 indicators in over 90 tables organized in 6 sections: World View, People, Environment, Economy, States and Markets, and Global Links. Further information on EMWIS website . 38- WWFs Investors Guide to Dams provides a wide range of investors officials of commercial and multilateral development banks, donors, export credit agencies and governments with an overview of the benefits, costs, and risks associated with dam investments, as well as options for mitigating impacts. A checklist to aid decision making is provided. Further information on EMWIS website . 39- The UNESCO-IHP ISARM (International Shared Aquifers Resources Management) Programme has produced the "Atlas of Transboundary Aquifers Global maps, regional cooperation and local inventories". This Atlas was presented at the World Water Week 2009 in Stockholm and is now available on-line. Further information on EMWIS website .

===== CALL FOR TENDERS and PROPOSALS ===== 40- Climate change impacts (natural and anthropogenic factors) and response options in mountainous areas: This is a Mountain pilot call under the CIRCLE ERA-NET. The aim of this call is to increase knowledge of options, premises and barriers for climate change impacts and adaptation including the relationship between adaptation and mitigation in mountainous areas. Special emphasis should be laid on the involvement of decision makers / developers and relevant stakeholders. The theme for project proposals is climate change impacts (natural and anthropogenic factors) and response options in mountainous areas including effects on /inter alia/, water resources, infrastructure, slope stability, agriculture, tourism, public health and biodiversity. The call will be open between September 22, 2009 and January 29, 2010 , 5 pm CET. The projects of the consortium should be ready to begin on August 1, 2010. Further information on EMWIS website . 41- FP7-ENV-2010 Environment (including climate change) Call: The call (Deadline: 05 January 2010) allocates EUR170 000 000 million for research topics (49 topics) in all the four activities of the Theme: Activity 6.1: Climate change, pollution and risks Activity 6.2: Sustainable management of resources Activity 6.3: Environmental technologies Activity 6.4: Earth observation and assessment tools for sustainable development Further information on EMWIS website . 42- ESA issues call for Earth Explorer proposals: Earth Explorer missions fall into two categories: Core and Opportunity. Core missions respond directly to specific areas of public concern and are selected through widespread consultation with the science community. Opportunity missions are lower-cost satellites that are relatively quick to build and fly so that they can respond to areas of urgent environmental concern. In line with ESAs wish to involve the scientific community in this aspect of its Earth Observation Programme, the current call invites scientists from all 18 Member States and Canada to submit proposals to be evaluated as a potential Opportunity mission. The aim is to launch this mission by 2018. The deadline for submitting the initial

letter of intent is 1 December 2009 . The call is expected to result in the selection of up to three candidate mission feasibility studies, after which they will be reviewed and one will be selected for flight. Further information on EMWIS website . 43- "Water competitions for all" call for projects: For the second consecutive year, the SUEZ ENVIRONMENT Foundation - WATER FOR ALL, based at the Institute of France, launched the competition "Water for All". It aims to develop projects promoting the improvement, development and professionalization of urban services of water and sanitation in developing countries. Two prizes will be awarded in May 2010 in Paris: - Grand Prize, awarded a sum of 100 000 EUR, - Special Prize, awarded a sum of 30 000 EUR. The call for applications is open till December 15, 2009 . Further information on EMWIS website .

===== CALL FOR PAPERS

===== 44- Call for abstracts for the International Conference on Soil Classification and Reclamation of Degraded Lands in Arid Environments and Launch of the Abu Dhabi Soil Survey Report: This conference will be held in Abu Dhabi (UAE) on 17-19 May 2009. Deadline for abstract submission: 30 November 2009 . Further information on EMWIS website . 45- Last Call for abstract to the Fifth International Conference on the Geology of the Tethys Realm (2-7 January 2010, South Valley University, Quena - Luxor, Egypt): Abstracts should be submitted before 1st of December 2009 . Further information on EMWIS website . 46- Call for papers for the 4th International Conference on Water Resources and Arid Environments (ICWRAE): Duration of Conference: 4 days (5-8 December 2010). The deadline for applying and uploading abstracts is 30 October 2009 . Further information on EMWIS website . 47- "Journal of Hydrology and Meteorology: Call for papers ": It intends to include relevant areas like climate change, atmospheric and water pollution, floods, droughts, desertification, glaciology and many others. Next issue of the Journal (Vol. 7, No. 1) will be published in August 2010. Last date of submission of abstract: October 31, 2009. Further information on EMWIS website . 48- ' ISARM 2010' - International Conference on Challenges and new directions in Transboundary Aquifers Management : The Scientific Advisory Committee will select from the extended abstracts a number of authors who will be requested to prepare full-length papers. Proceedings will be published by UNESCO-IHP. The participants are kindly requested to submit their abstracts by 30 March 2010 . The Conference will be held at UNESCO Headquarters in Paris (France) from 6-8 December 2010. Further information on EMWIS website . 49 - The forthcoming 3rd International Symposium on 'Recent Advances in Quantitative Remote Sensing', will be held in Valencia (Spain), from 27 September to 1 October 2010. A call for papers is launched till the 15th February 2010 . Further information on EMWIS website 50- The "Estuaries, rivers and streams. Representations and practices" is a multidisciplinary event that aims to provide a forum for researchers in geography, sociology, anthropology, information science and communication as well as historians. Date and venue of the conference: Rouen (France), the 05 and 06 May 2010. Proposals should be sent no later than 15 November 2009 . Further information on EMWIS website .

===== TRAINING

===== 51- [2009/11/17 - 2009/11/17] The International Office for Water (OIEAU) Days: "Innovations technologiques dans le secteur de l'epuration par boues actives", Lyon, France . Further information on EMWIS website .

===== EVENTS (Full Agenda)

===== [2009/11/30 - 2009/12/01] Colloque

"Les grands fleuves vont la mer : de la production de connaissance la gestion durable d'environnement d'exception", Lyon, France. Further information on EMWIS website . [2009/11/26 - 2009/11/28] Meeting of the Euromed Cities Network , Jdeid, Lebanon. Further information on EMWIS website . [2009/11/26 - 2009/11/27] Water'09: Water Technologies Congress, Madrid, Spain Further information on EMWIS website . [2009/11/25 - 2009/11/26] 1res Rencontres Nationales des

Professionnels de l'Hygiene et de la Sant, La Souterraine, France. Further information on EMWIS website [2009/11/24 - 2009/11/25] Modles physiques hydrauliques : outils indispensables du XXIe sicle? Lyon & Grenoble, France. Further information on EMWIS website [2009/11/23 - 2009/11/24] " Contribution of local and regional authorities to the water strategy of the Union for the Mediterranean ", Lyon, France. Further information on EMWIS website [2009/11/19 - 2009/11/20] Eurisy Workshop: "Local and regional authorities using satellite services to understand, mitigate, and adapt to climate change", Athens, Greece Further information on EMWIS website [2009/11/18 - 2009/11/18] Water technologies for the Southern World - Special Issue: Symposium Water production in the Southern World with CSP, Rotterdam, The Netherlands. Further information on EMWIS website [2009/11/18 - 2009/11/18] Rainwater Harvesting & Greywater Recycling: Future Prospects, Birmingham, UK Further information on EMWIS website [2009/11/18 - 2009/11/19] First International Conference on Economists & Management of Water in Arab World and Africa, Assiut, Egypt Further information on EMWIS website [2009/11/17 - 2009/11/19] The Second International Conference and Exhibition WATEC 2009, Tel Aviv, Israel Further information on EMWIS website [2009/11/17 - 2009/11/18] International Conference on Energy, Environment and Water Desalination, Tripoli, Libya Further information on EMWIS website [2009/11/14 - 2009/11/18] Productive and Sustainable Use of Saline Waters and Salt-affected Soils in Agriculture, Aleppo, Syria Further information on EMWIS website [2009/11/12 - 2009/11/14] The Integration of Sustainable Agriculture and Rural Development in the Context of Climate Change, the Energy Crisis and Food Insecurity, Agadir, Morocco. Further information on EMWIS website . [2009/11/12 - 2009/11/13] 2me CIEDE-UPM 2009 - Congr international: "Eaux, Dchets et Environnement - UpM", El-Jadida, Morocco. Further information on EMWIS website . [2009/11/12 - 2009/11/14] Green Ifriqiya - Edition 2009 (Le Kram, from 12 to 14 November 2009), Le Kram, Tunisia. Further information on EMWIS website [2009/11/11 - 2009/11/15] Water supplies and Sewage 2009, Martin na Muri, Croatia Further information on EMWIS website [2009/11/11 - 2009/11/11] Ralisation de la directive cadre sur l'eau (200/60/CE): Les plans de gestion de district hydrographique, Rome, Italy. Further information on EMWIS website [2009/11/10 - 2009/11/12] ACQUA ALTA - 4th International Conference and Exhibition on Consequences of Climate Change and Flood Protection, Hamburg, Germany Further information on EMWIS website [2009/11/10 - 2009/11/14] MEDCOAST 09 - 9th International Conference on the Mediterranean Coastal Environment, Sochi, Russia Further information on EMWIS website [2009/11/10 - 2009/11/12] Fifth meeting of the Parties to the Water Convention, Geneva, Switzerland Further information on EMWIS website [2009/11/10 - 2009/11/11] The 4th International Conference of SCU & ESES: "Impacts of Climate change on Natural Resources", Ismailia city, Egypt Further information on EMWIS website . [2009/11/09 - 2009/11/11] La 12me confrence InterRgionale Enviowater, Marrakech, Morocco. Further information on EMWIS website . [2009/11/09 - 2009/11/10] Les rencontres EURO MEDITERRANEENNES 2009 des formations sur les risques, Paris, France. Further information on EMWIS website . [2009/11/08 - 2009/11/11] Journes dAnimation Scientifique, Alger 2009, Algiers, Algeria. Further information on EMWIS website [2009/11/07 - 2009/11/12] 2009 IDA World Congress on Desalination and Water Reuse, Dubai, UAE Further information on EMWIS website [2009/11/06 - 2009/11/06] 3rd Annual Meeting of the Loire Scientific Community and River Managers : Integrated River Management: Valorisation of Research Findings , Saint-Etienne, France. Further information on EMWIS website [2009/11/06 - 2009/11/06] European Water Management and the Implementation of the Floods Directive, Brussels, Belgium. Further information on EMWIS website [2009/11/05 - 2009/11/05] Barcelona EuroMed Forum: " EuroMediterranean Working Group: The projects of the Union for the Mediterranean (UfM) ", Barcelona, Spain. Further information on EMWIS website . [2009/11/04 - 2009/11/06] The 9th Annual Conference and Exhibition of the Water Supply and Sewerage Association of Albania, Tirana, Albania. Further information on EMWIS website [2009/11/04 - 2009/11/05] The Sava

International conference: 'Towards a Shared Vision for the Integrated Management of the Sava River', Zagreb, Croatia Further information on EMWIS website [2009/11/03 - 2009/11/05] 5th Algeria Electricity & Water Expo, Algiers, Algeria. Further information on EMWIS website [2009/11/03 - 2009/11/04] Join us for the 2009 WWF Science for Nature Symposium "Securing Water for Nature and People in a Changing Climate", Washington, DC, USA. Further information on EMWIS website. [2009/11/03 - 2009/11/03] Water Day Event at Barcelona UNFCCC, Barcelona, Spain. Further information on EMWIS website . [2009/11/02 - 2009/11/03] " Towards the new Long Term Strategy for Water in the Mediterranean ", Cairo, Egypt. Further information on EMWIS website . [2009/11/02 - 2009/11/03] International Workshop on Wetlands, Gland, Switzerland Further information on EMWIS website [2009/10/29 - 2009/10/30] IWEH09 - The First International Workshop on Environmental Hydraulics: Theoretical, Experimental & Computational Solutions, Valencia, Spain Further information on EMWIS website . [2009/10/29 - 2009/10/30] 10mes rencontres d'Affaires Euro-mediterranennes dans le secteur de l'Eau , Barcelona, Spain Further information on EMWIS website . [2009/10/27 - 2009/10/30] 9e forum EURAFRIC-PARTNERS: "l'Eau et l'Energie en Afrique" - Confrence Ministrielles sur les ouvrages hydro-lectriques en Afrique , Lyon, France Further information on EMWIS website . [2009/10/27 - 2009/10/27] Lancement de la Mdiation de l'Eau, Paris, France. Further information on EMWIS website . [2009/10/26 - 2009/10/28] The International Journal on Hydropower & Dams: HYDRO 2009, Lyon, France. Further information on EMWIS website .

===== BRIEF EMWIS SITE MAP
===== ABOUT EMWIS (Priorities , Activities , Objectives , Structure , Funding , Team) WATER in the EURO-MED PARTNERSHIP (MEDA programme , Key dates , European Neighbourhood Policy) EMWIS NATIONAL WEBSITES : Algeria , Egypt , Israel , Jordan , Lebanon , Morocco , Palestine , Syria , Tunisia , Turkey , Cyprus , Malta , Spain , France , Italy , Portugal , Austria , Greece , Belgium , Luxembourg EMWIS WATER MULTILINGUAL THESAURUS (Available in English, French, Arabic, Spanish & Italian)- Water glossaries WATER PROJECTS DATABASE (MEDA-NIPs, MEDA-Water, LIFE, SMAP, INCO-MED, FP4-FP6, INTERREG, etc) DOCUMENTATION (EMWIS meetings , Documentary database , Funding for water , Key documents , Water Legislation) WHO DOES WHAT IN THE WATER SECTOR (By contacts, organisations & information sources) PARTNERS & SPONSORS (OIEau, CEDEX, SOGESID, EC , INBO , IME , GWP-Med , MED-EUWI , SMAP-RMSU) MEDA-WATER PROJECTS (ADIRA , EMPOWERS , EMWater , IrWA , ISIIMM , MEDAWARE , MEDROPLAN , MEDWA , Zer0-M) WATER INITIATIVES (MED-EUWI , WFD , INCO-MED , LIFE , MEDSTAT , SMAP , EXACT , UNEP-MAP , MSSD , HORIZON 2020 , Union for the Mediterranean) & Mediterranean Water Information Mechanism FORUM ; FAQ ; TOPICS (MedWIP , Water scarcity , groundwater , wastewater reuse , desalination , satellite data , etc) SEARCH EMWIS WEBSITE EMWIS SITEMAP ===== CONTACT US

===== - This is a monthly Flash provided by the EMWIS Technical Unit (sent to: 17157 subscribers), to which you can get a free subscription, click here for an open subscription. - The EMWIS Flash gives you regular and quality information on the water sector in the Euro-Mediterranean area. The main headlines are: Institutions,