

Mediterranean Science, Policy, Research & Innovation Gateway

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The Mediterranean Science, Policy, Research and Innovation Gateway (MED-SPRING) is a Coordination Action financed by the INCO-Net instrument under the FP7 - Capacities Programme. The aim of the Project is to contribute to the quality of the Euro-Mediterranean research area, with a particular focus on the bi-regional Euro-Mediterranean S&T cooperation, research and innovation, policy dialogue and cooperation monitoring.

Welcome to the 11th MED-SPRING E-Newsletter!

Dear readers, welcome to the eleventh issue of the MED-SPRING E-Newsletter, which has the purpose of informing about our activities and involving researchers, stakeholders, policy makers and governmental officers in a renewed strategy for the Euro-Mediterranean partnership, with a particular focus on the Euro-Mediterranean Science and Technology Cooperation.

KEEP AN EYE ON: **AGORA MED-SPRING**

Our recent activities

- **MED-SPRING - 3rd Euro-Mediterranean Brokerage and Venturing Event on Research and Innovation**

The 26th-27th May 2016, MED-SPRING organized in Valenzano (Italy), hosted by CIHEAM-IAMB, in collaboration with MHESR, MCST, ANIMA and DLR, the event “3rd Euro-Mediterranean Brokerage and Venturing Event on Research and Innovation”.



- **MED-SPRING Third Inter-institutional meeting on mobility**

The third inter-institutional meeting of MED-SPRING “Towards an innovative Euro-Mediterranean mobility” was held in Bari on 27th April 2016. Building on the work carried out by MED-SPRING, which led to the drafting of an “Action Plan for innovative mobility schemes in the Euro-Mediterranean region”, the meeting gathered MPCs research ministries/institutions partners of MedSpring, EC representatives in charge for mobility programmes and coordinators of major mobility initiatives in the region.



Our coming activities

- **2nd Training and capacity building on Innovation Systems**

MED-SPRING project is organizing a training session on Innovation called "2nd Training and capacity building on Innovation Systems" kindly hosted by DLR in Bonn, Germany, and foreseen from September 20th to 22nd. This is the sixth and last workshop on Capacity Building of the project. The two-day training targets responsible players at the macro and meso level of National Innovation Systems in MPCs as well as in EU MS.

- **Euro-Med Hackaton**

MedSpring is organising a Euro-Med Hackathon in Amman, Jordan, from 14th to 15th December 2016, a regional co-working event to develop solutions to specific problems and challenges identified by the private sector. The main thematic focus will be on water, food and energy. The Med Hackathon will feature a marathon of young innovators selected through an on-line call to be published in September. The best co-working team will win the possibility to develop the solution proposed.

Also in the pipeline!

- **Financing & Implementing Energy Projects in Africa 2016 International Conference**

The "Financing & Implementing Energy Projects in Africa 2016" is an international conference which was hosted in Berlin, Germany, from 25th to 26th August 2016. This event brought together global, African, European and national partners, high level government officials, business executives and NGO representatives to exchange on financing and carrying out energy investments and projects in Africa.

if the world is to combat hunger, use natural resources more efficiently and stem environmental damage.



- **Top 12 Ways World Can End Hunger, Stem Environmental Damage from Food Systems**

Latest IRP report lists 12 ways to use natural resources more efficiently, improve human health and reduce the environmental damage caused by food systems. A major overhaul of the global food system is urgently needed

- **GWP Annual Report 2015**

The 2015 GWP Annual Report has been published. The Global Water Partnership (GWP) is an international network that was created in 1996 to foster the implementation of integrated water resources management: the coordinated development and management of water, land, and related resources in order to maximise economic and social welfare without compromising the sustainability of ecosystems and the environment.

Meet our Partners! The "Ministere de L'Enseignement Superieur et de la Recherche Scientifique - DG-RSDT"

The General Directorate for Scientific Research and Technological Development, DGRSDT which stands for "Direction General de la Recherche Scientifique et du Developpement Technologique" is a public administration under the auspices of the Algerian Ministry of High Education & Scientific Research, MESRS, which stands for "Ministere de l'Enseignement Superieur et de la Recherche Scientifique". The DGRSDT is primarily in charge planning and monitoring the implementation of the national research program. It is essentially in charge of various aspects of scientific research involved in different economical areas, i.e., planning, evaluation, infrastructures, research projects funding

and their assessments.

DGRSDT is also responsible for promoting partnerships and cooperation between Algerian research institutes and the private as well as the public sectors, and particularly bridging between local education research institutes, universities and local private and/or public industries. It contributes to national wide technological development via its position at high national council of scientific research and technology development aiming to execute all forms of recommendations issued by the government under the national policy. DGRSDT plays also a strong contribution for promoting international cooperation values where it has been involved as a strong partners in several EU programs namely Inco-NET MIRA, MedSpring and EranetMed among others.

Since its establishment in 2008, the DGRSDT has gained valuable expertise in planning and managing research programs in national wide that come along with establishing a good network to the scientific international community especially in Europe to contribute to the enhancement of international cooperation in research and innovation with several key expertise in:

- Support for awareness raising, event management skills
- Cover wide network of scientific community
- Global player in international cooperation
- Strong in dissemination activities in that country
- High level of project monitoring, analyses, and data management

Read more: <http://www.mesrs.dz/> .

Focus on the Nexus concept in Jordan

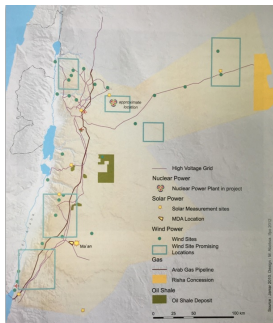
Jordan is a country located 80 km east of the eastern coast of the Mediterranean Sea covering an area of about 89,000 km². The country is bordered by Saudi Arabia to the south and east, Iraq to the northern east, Syria to the north and Palestine and Israel to the west. Jordan is located under a semi-arid area with a climatic condition characterized by cold winter and hot summer. The average minimum annual temperature is recorded in January of 5°C, while the average highest temperature is recorded on August of 35°C. Precipitation in Jordan varies from less than 50 mm/yr in the south-eastern desert area of the country to more than 650 mm/yr in the highlands and northern Mountains. Renewable energy resources are naturally abundant in Jordan and they offer a perfect chance to enhance the local economy and increase the national energy security.

Jordan is a food deficit country. It is among the seven most vulnerable countries to the impact of high food prices. The agriculture sector takes place in the northern and western highlands, and the most productive areas are in Jordan Valley, and the fluctuating of the precipitation quantity has a direct impact on the agricultural productions and it is affected by the scarcity of irrigation water and the overuse of groundwater. Farming is economically important in Jordan, despite its small share of GDP, as it is a major source of food and a major source of hard currencies gained from exports.

The pressure on natural resources due to challenges related to population growth worsened in recent years. Jordan's population was 5.1 million according to 2004 estimate, up substantially from 4.1 million in 1994 estimation, in the last decades it was shocked by the waves that followed the neighboring Arab countries Wars, 2015 ended with a population of 10 million, 2.8 million are due to the observed endless waves of refugees (Jordanzad). The sudden and a rapid increase in the country population due to the refugees flux to a country already suffering from difficult economic conditions, poor infrastructures and a limited essential resources, such as water and energy and food effects on the impact on education and health sector, security and public services beside focusing on the impact on the budget and the debt.

In Jordan; food, water and energy are substantial linked. Food sector uses about 46% of groundwater and 62% of the total available surface water in Jordan. Energy and resources are strongly interrelated and interconnected

in both way directly and/or indirectly with water recourses, the connection is becoming increasingly inseparably as water scarcity increases. To utilize water for different purposes, energy is required in all segments; translocating surface water, extracting groundwater, feeding desalination plants with its raw sea/brackish waters and producing freshwater, pumping and conveying, collecting wastewater and treatment and reuse.



We find in the figure the Jordan Main energy projects (Source: Atlas of Jordan, History, Territories and Society). Jordan is one of the leading countries that have the potentiality to convert the limitation of resources to a formation of new resources by implementing an integrated nexus approach projects. Actually the country started adopting this approach in water sector by planning a several projects such as Disi project and red-dead sea project where energy is generated due to head loss hydraulic power from different elevation water allocation sites. In the red-dead sea project this new generated energy is used to desalinate the sea water to be provided as a fresh water to the main cities in the country. A project that would provide potable water to Jordan, Israel and the Palestinian territories, bringing sea water to stabilize the Dead Sea water level and generate electricity to support the energy needs of the project. The conveyance pumps seawater 230 meters uphill from the Red Sea's Gulf of Aqaba through the Arabah valley in Jordan, then flows down gravitationally through multiple pipelines to the Dead Sea, followed by a drop through a penstock to the level of the Dead Sea near its shore and an open Canal to the Sea itself, which lies about 420 m

below sea level. The project will consist of about 225 km of seawater and brine conveyance pipelines parallel to the Arabah valley in Jordan, also consist of about 178 km of freshwater conveyance pipelines to Amman. It includes water desalination plants and a hydropower plant. In its ultimate phase it would provide 850 million cubic meters of freshwater per year. It would require electric generating capacity from the Jordanian grid and would provide electricity through hydropower, making the project a large net energy user.

A better exploitation of the water transfer method with elevation can be used to ensure the electric generators not only provide energy for this project but also for the area, hopefully taking a more environment friendly approach than the persisting need of building a nuclear reactor, to supply these power needs.

Jordan's economy continues to slowly but steadily recover from the Arab Spring spillovers. These spillovers include Egypt's gas disruptions, the neighboring Syrian and Iraqi conflicts and associated security incidents. Notwithstanding these shocks, real GDP growth rate is estimated to have reached 3.1 percent in 2014, up 30 basis points over 2013. From the supply side, growth was led by construction, wholesale and retail trade, and finance and insurance, with a pick-up in the mining and quarrying sector. On the demand side, growth was predominantly fueled by higher public investments, mostly due to earmarked GCC grants, and a narrower trade deficit.

The steady economic recovery has improved unemployment rates although this masks underlying structural weaknesses. The expanding economy and continued efforts at fiscal consolidation have resulted in a lower fiscal deficit.

The tighter deficit (including grants) comes despite higher transfers to the National Electric Power Company (NEPCO) and the Water Authority of Jordan (WAJ), estimated at 7.0 percent of GDP in 2014 compared to 5.9 percent of GDP in 2013. The larger transfers stemmed from the government's need to resort to more expensive energy sources following further disruption of (cheap) gas supplies from Egypt.

The economy is expected to steadily continue to gather pace as reforms continue while security and oil prices present key downside risks. Real GDP growth is forecast at 3.5 percent in 2015 due to stronger private consumption and investment, in part driven by lower oil prices and investment projects notably in energy. The debt-to-GDP ratio is expected to be reduced given the growth pick-up and continued fiscal consolidation. Downside risks include exacerbation of the Syrian and Iraqi crises and a higher oil price. (World Bank, 2015).

Read more: <http://www.medspring.eu>.

Colophon: This E-Newsletter has been developed within the framework of the MED-SPRING Project (FP7-INCO.Net 311780). For further information about the project please visit the official website: <http://www.medspring.eu>. Edited/Written by MED-SPRING WP3 Team and MED-SPRING Coordination team. Images by MED-SPRING.