

DROUGHT-R&SPI

AT A GLANCE

Title: Fostering European Drought Research and Science-Policy Interfacing

Instrument: FP7, Collaborative project

Total Cost: € 4,191,890.80

EC Contribution: € 3,439,950.00

Duration: 36 months

Start Date: 1 October 2011

Consortium: 12 partners from 9 countries

Project Coordinator: Henny A.J van Lanen, Wageningen Universiteit

Project Web Site: www.eu-drought.org

Key Words: Drought, pan-European, case studies, vulnerability, risk, natural hazard, past and future, impact, drought research, drought management plans, drought-sensitive regions, Science-Policy interfacing

THE CHALLENGE

DROUGHT IS NATURAL HAZARD THAT HAS HIT EUROPE HARD OVER THE LAST DECADES. LIKELY IT WILL BECOME MORE FREQUENT AND MORE SEVERE DUE TO THE INCREASED LIKELIHOOD OF WARMER NORTHERN WINTERS AND HOTTER MEDITERRANEAN SUMMERS. THERE IS AN URGENT NEED TO IMPROVE DROUGHT PREPAREDNESS THROUGH INCREASED KNOWLEDGE, DROUGHT MANAGEMENT PLANS AND AN IMPROVED SCIENCE-POLICY INTERFACING THAT WILL REDUCE VULNERABILITY TO FUTURE DROUGHT AND THE RISKS THEY POSE FOR EUROPE. DROUGHT-R&SPI WILL ADDRESS THIS PRESSING NEED.

PROJECT OBJECTIVES

DROUGHT-R&SPI WILL ENHANCE THE UNDERSTANDING OF THE: (i) DROUGHT AS A NATURAL HAZARD, INCL. CLIMATE DRIVERS, DROUGHT PROCESSES AND OCCURRENCES, (ii) ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS, AND (iii) VULNERABILITIES, RISKS AND POLICY RESPONSES, INCL. THE FURTHER DEVELOPMENT OF DROUGHT MANAGEMENT PLANS IN SUPPORT OF EU AND OTHER INTERNATIONAL POLICIES, E.G. UN/ISDR-HFA. THE PROJECT WILL ADDRESS THE PAST AND FUTURE CLIMATE, LINK SCIENCE AND SCIENCE POLICY DIALOGUE ACROSS SCALES AND ACROSS A RANGE OF AFFECTED SECTORS.



METHODOLOGY

DROUGHT-R&SPI USES A TRANSDISCIPLINARY APPROACH THAT INCLUDES INNOVATIVE IN-DEPTH STUDIES THAT COMBINE DROUGHT ANALYSES FOR SELECTED CASE STUDIES IN WATER-STRESSED REGIONS ACROSS EUROPE WITH DROUGHT ANALYSES AT THE PAN-EUROPEAN SCALE BOTH FOR PAST AND FUTURE CLIMATE. THE CASE STUDIES REPRESENT DIFFERENT SCALES (LOCAL, RIVER BASIN AND NATIONAL) AND COVER DIFFERENT GEOCLIMATIC REGIONS (GREECE, ITALY, NETHERLANDS, PORTUGAL, SPAIN AND SWITZERLAND) THAT ARE VULNERABLE TO DIFFERENT DROUGHT IMPACTS. DROUGHT RESEARCH WILL BE WELL INTEGRATED INTO THE POLICY-MAKING PROCESS ACROSS SCALES BY THE ESTABLISHMENT OF CASE STUDY DIALOGUE FORA AT A DETAILED SCALE AND A PAN-EUROPE DIALOGUE FORUM AT THE LARGE SCALE FROM THE START OF THE PROJECT ONWARDS.

EXPECTED RESULTS

DROUGHT-R&SPI WILL DELIVER THE FOLLOWING:

- ENHANCED KNOWLEDGE OF PAST DROUGHTS (UNDERLYING PROCESSES, FREQUENCIES, SEVERITIES AND SCALES), IN PARTICULAR DRIVING ATMOSPHERIC FACTORS AND CHARACTERISTICS OF THE MOST EXTREME HISTORIC EVENTS AT THE PAN-EUROPEAN SCALE;

- IN-DEPTH UNDERSTANDING OF ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS AT A SMALL SCALE IN WATER-STRESSED REGIONS (CASE STUDIES) AND CONSIDERING THE LARGE-SCALE DRIVERS;
- PAST RESPONSES TO DROUGHT EVENTS AT THE CASE STUDY SCALE, AND IDENTIFY BEST PRACTICE EXAMPLES AND LESSONS LEARNT CRUCIAL FOR THE DEVELOPMENT OF DROUGHT MANAGEMENT PLANNING;
- SUITE OF DROUGHT INDICATORS THAT INTEGRATE PHYSICAL, IMPACT AND VULNERABILITY INDICES, ADDRESSING DIFFERENT SPATIO-TEMPORAL SCALES AND WATER-RELATED SECTORS;
- INNOVATIVE METHODOLOGY FOR EARLY WARNING (MONITORING AND FORECASTING) OF DROUGHT AT THE PAN-EUROPEAN SCALE;
- DIALOGUE FORA AT DIFFERENT SCALES FOR SCIENCE-POLICY INTERFACING;
- DROUGHT HAZARD AND POTENTIAL VULNERABILITIES AT THE CASE STUDY AND PAN-EUROPEAN SCALE IN THE 21ST CENTURY TO IDENTIFY DROUGHT SENSITIVE SECTORS AND REGIONS;
- WEB-BASED INFORMATION AND KNOWLEDGE EXCHANGE AND SHARING FACILITATED BY THE EUROPEAN DROUGHT CENTRE (EDC).

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