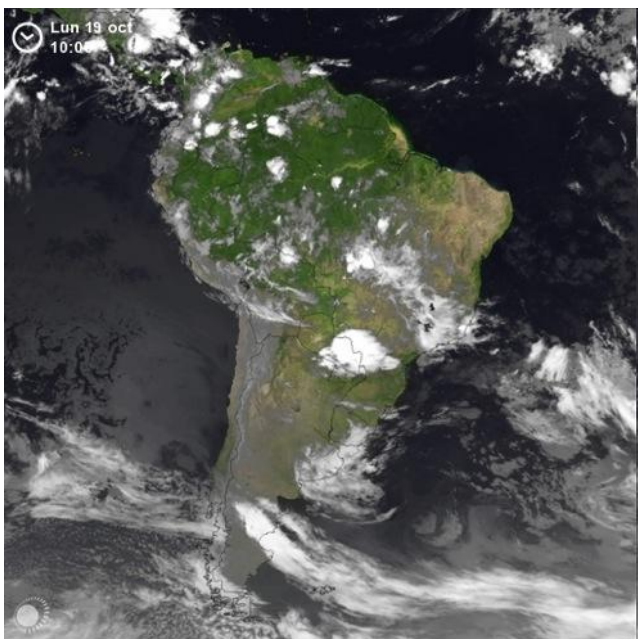
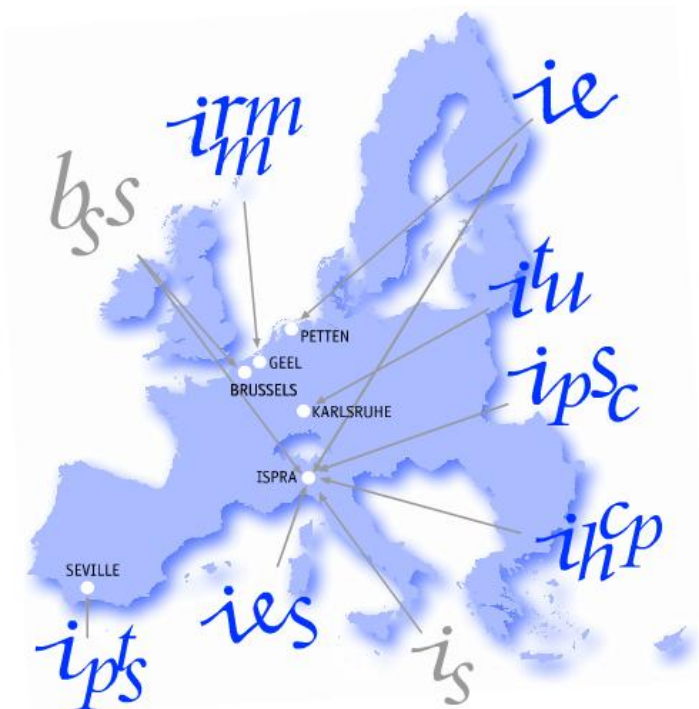


EUROCLIMA – Scientific Component



Co-ordinator : cesar.carmona-moreno@jrc.ec.europa.eu

<http://www.jrc.ec.europa.eu/>



- DG JRC is a Directorate General of the European Commission with the Mission Statement of providing **customer-driven scientific and technical support** for the conception, development, implementation and monitoring of **EU policies**. As a service of the European Commission, the JRC functions as a **reference centre** of science and technology **for the Union**.

- Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national

- 7 Research Institutes – Total Staff : **2750**

- Annual Budget: **330 MEuros**

- Research activities defined by the Framework Programme: **FP7**

EUrocLIMA – Expected Results

- 1. Improvement of policies related to Climate Change in Latin America**
- 2. Improvement the exchange of scientific and socio-economic Information and Data related to Climate Change**
- 3. Reinforcement and development of technical and scientific capacities in Latin America**

EUrocLIMA – Scientific Component

- **JRC coordinates EUrocLIMA's scientific and technical activities**
- **Identifying key LA research and technical institutions**
- **Identifying Information and Data Needs from the Policy Makers and Research Institutions**
- **Seminars, Capacity Building and Training**
- **Improving access to information, data and models**

EUrocLIMA – Scientific Activities

SOILS

- SOIL ATLAS of Latin America
- Latin American Network of SOIL Agencies
- Development of a LA SOIL GeoPortal

FOOD SECURITY

- Scenarios of Mitigation and Adaptation of LA Agricultural Systems to Climate Change

WATER RESOURCES

- Implementation of a Virtual Network of LA Institutions in Water Resources Management
- Regional Hydrological Balance
- Water and Sanitation – Water Quality Analysis

BIO-ENERGY Sustainability

- Impacts of Bio-Fuels in Latin America agro-environments
- GHG emissions from bio-fuels
- Technology transfer

DESERT-DROUGHT

- Drought map server for Latin America
- LA Map Server of Desertification/Natural Soil Degradation for Latin America

EUrocLIMA – SOIL

Contact Person :
Dr. Luca MONTANARELLA

luca.montanarella@jrc.ec.europa.eu

The Soil Atlas of Latin America will make extensive use of the existing soil data archive within the European Soil Data Centre of the JRC

The **Soil Atlas of Latin America** is part of the successful series of soil atlases published by the European Commission during the last years. It will benefit from the vast experience gained so far by the JRC in compiling such reference publications. It will be based on existing data and information and will be compiled in close collaboration with the National soil survey organizations of the participating countries. A specific network of National soil surveys (Latin America Soil Bureau Network) will be established that will support the compilation of this reference publication.

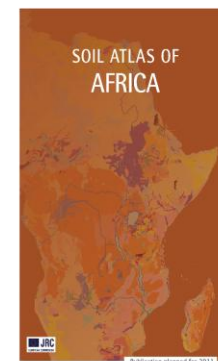
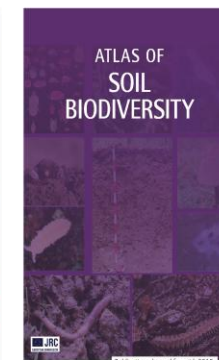
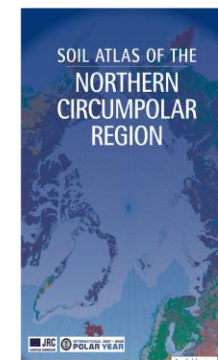
Further info at : <http://eusoils.jrc.ec.europa.eu/>

Soil Atlas of LA will be included in:

http://eusoils.jrc.ec.europa.eu/library/maps/LatinAmerica_Atlas/index.html

JRC Soil Atlas Series

The European Commission Joint Research Centre is collaborating with soil scientists and researchers from all over the world to develop a series of soil-related atlases. To obtain a copy or for further information, please consult the Publications Office of the European Union (<http://publications.europa.eu/>) or the JRC SOIL Action's web site (<http://eusoils.jrc.ec.europa.eu>).



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The Soil Atlas of Latin America will make extensive use of the existing soil data archive within the European Soil Data Centre of the JRC

EUROCLIMA Soil Partners:

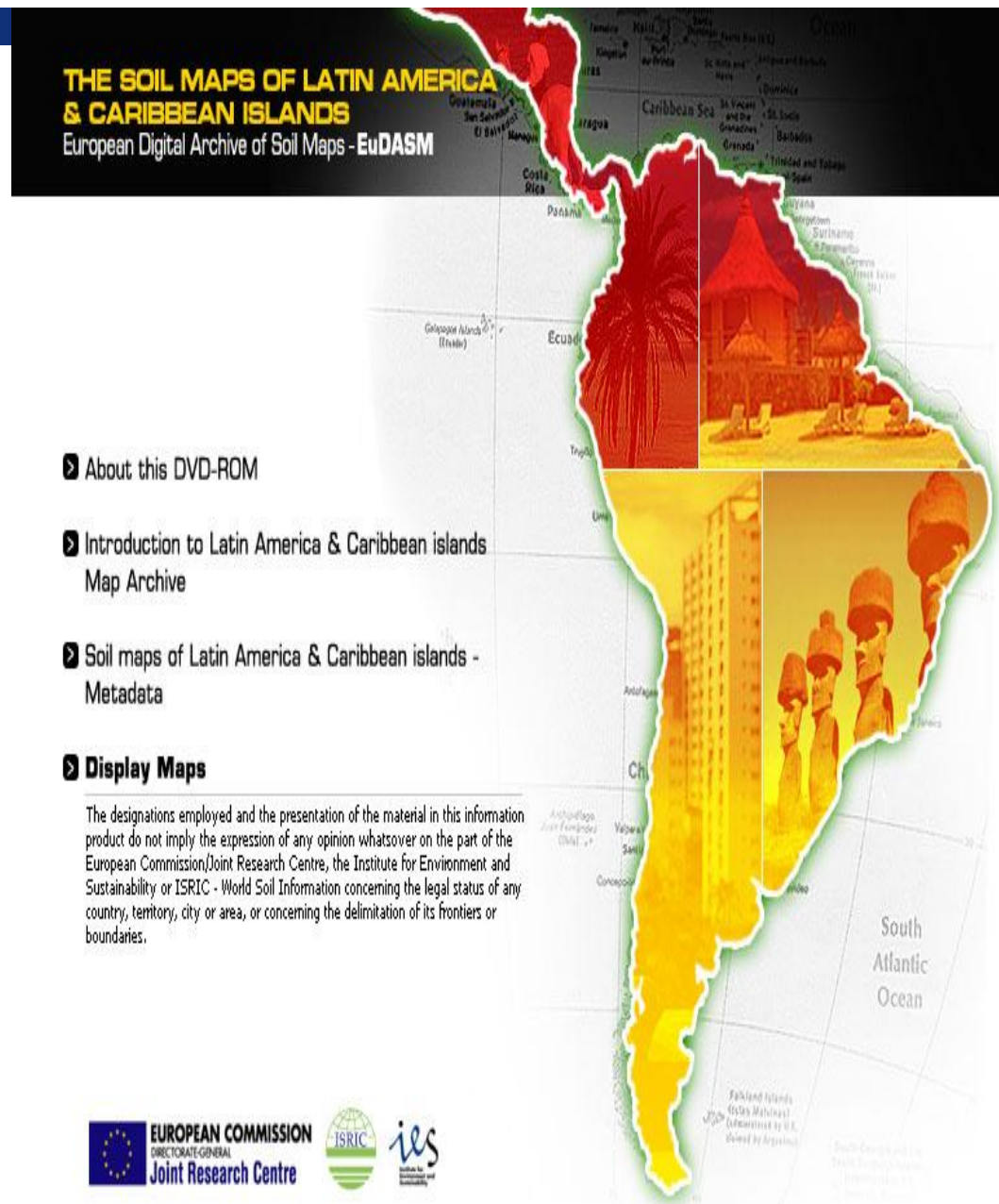
EMBRAPA (Br), UNAM (Mx), Univ. Costa Rica, ENLASA, INTA-Suelos (Ar), CIAT (Col), Univ. Nac. Agraria (Peru), UCATSE (Nic), Univ. Central (Eq), Inst. Suelos (Cuba), Esc. Agric. Panam (Hond), AgroSoil (CR), ...

THE SOIL MAPS OF LATIN AMERICA & CARIBBEAN ISLANDS

European Digital Archive of Soil Maps - EuDASM

- ▶ About this DVD-ROM
- ▶ Introduction to Latin America & Caribbean islands Map Archive
- ▶ Soil maps of Latin America & Caribbean islands - Metadata
- ▶ Display Maps

The designations employed and the presentation of the material in this information product do not imply the expression of any opinion whatsoever on the part of the European Commission/Joint Research Centre, the Institute for Environment and Sustainability or ISRIC - World Soil Information concerning the legal status of any country, territory, city or area, or concerning the delimitation of its frontiers or boundaries.



The Soil Atlas of Latin America will make extensive use of the existing soil data archive within the European Soil Data Centre of the JRC

The **Soil Portal** will have an expanded section on LA :

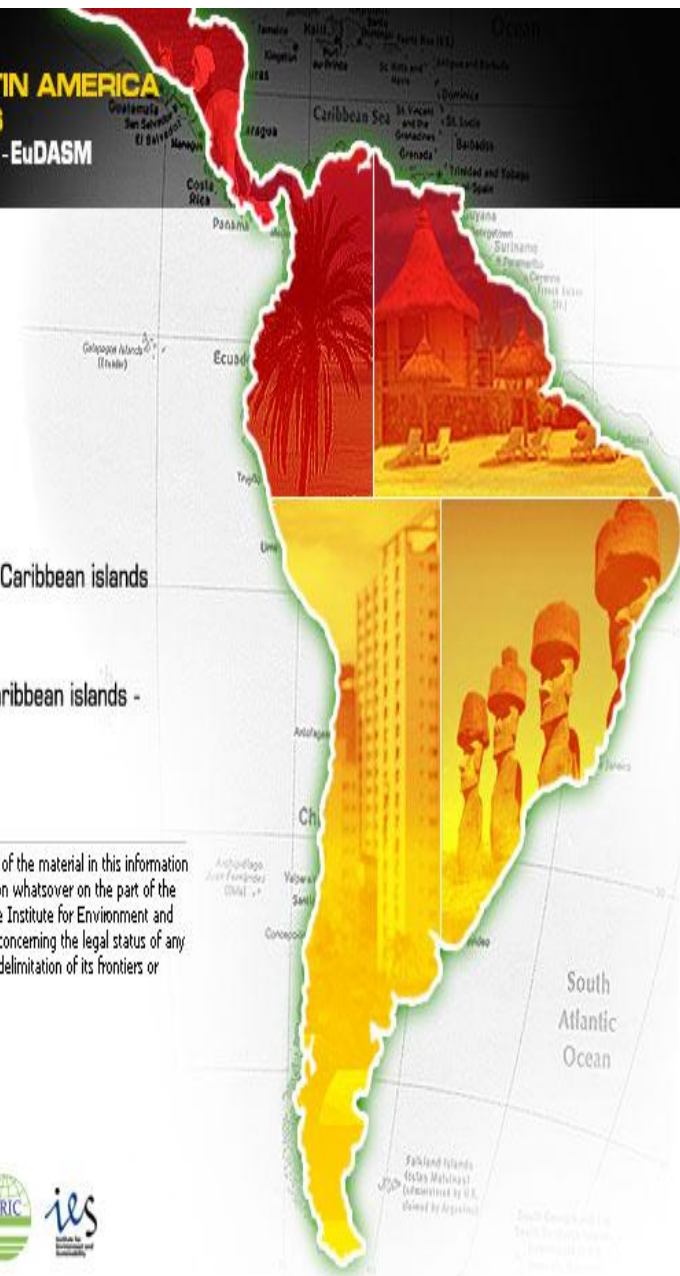
http://eusoils.jrc.ec.europa.eu/esdb_archive/EuDASM/latinamerica/index.htm

THE SOIL MAPS OF LATIN AMERICA & CARIBBEAN ISLANDS

European Digital Archive of Soil Maps - **EuDASM**









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Global Soil Map Regional Nodes



 Africa South of the Sahara	 Middle East/ North Africa
 East Asia	 North America
 Eurasia	 Oceania
 Latin America and the Caribbean	 South Asia

Land Area Per Region (sq. km)	
East Asia	13,634,162
Eurasia	23,762,066
Latin America/Caribbean	18,393,410
Middle East/North Africa	15,359,662
North America	20,613,157
Oceania	10,663,346
South Asia	4,372,529
Sub-Saharan Africa	23,911,997

(Middle East/North Africa and South Asia nodes pending)

Source for land area data: <http://sedac.ciesin.columbia.edu/place/datasets.jsp>

EUrocLIMA – Food Security

Contact Person :
Dra. Bettina BARUTH

Bettina.BARUTH@jrc.ec.europa.eu

Transferring 20 Years of Knowledge to Latin America

The following activities are planned under EUROCLIMA:

- Activity 1. Development of consistent agro-climatic databases (weather, soils, crop and management);**

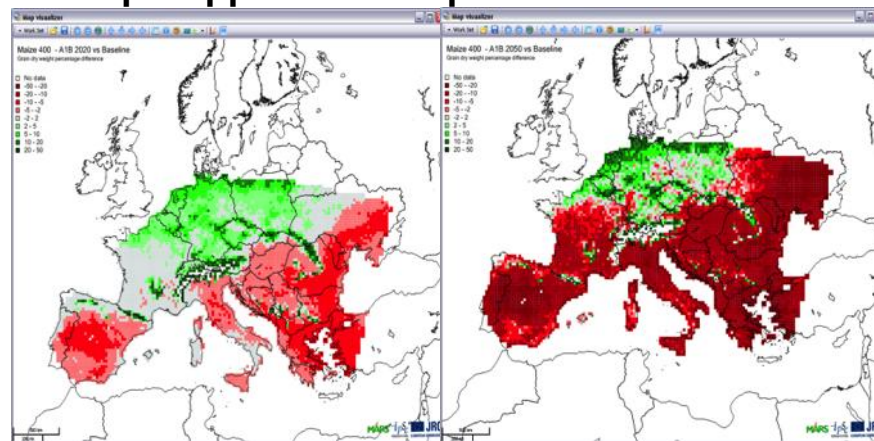
- Activity 2. Calibration of models
Development of climate change scenarios, including two time horizons: 2020s, 2050s; two SRES scenarios A1B and B1;**

- Activity 3. Climate change studies:
simulated crops in study region of interest, including wheat, maize, soybean, sugarcane.**

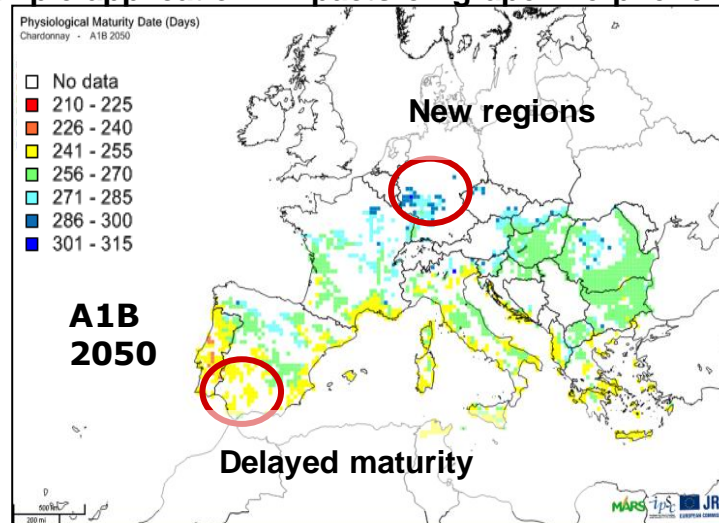
Three stakeholders workshops will provide training in model use for impact assessment with emphasis on Latin America

Examples of models and tools for Climate Change

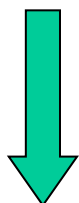
Sample application: Impacts on Maize Yields



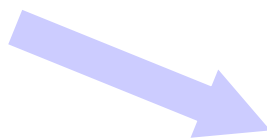
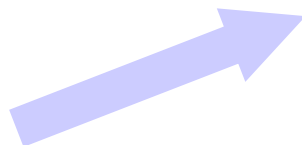
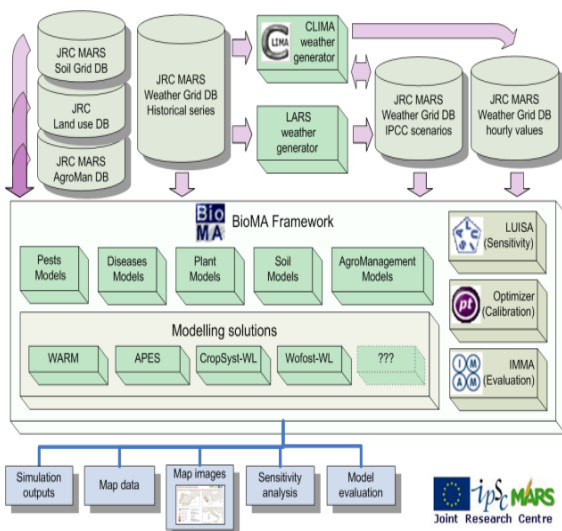
Sample application: Impacts on grapevine phenology



BIOMA platform



Regional Data Model Calibration



EUrocLIMA – Biofuels

Contact Person :
Dr. Jean Francois DALLEMAND

Jean-Francois.DALLEMAND@jrc.ec.europa.eu

International Experts meetings on Biofuels and Technology Transfer

The following activities are planned under EUROCLIMA:

Objective: To provide Latin American countries with a realistic and scientifically based assessment of:

Activity 1. environmental assessment of biofuels production;

Activity 2. GHG emissions from biofuels and comparison with reference scenarios;

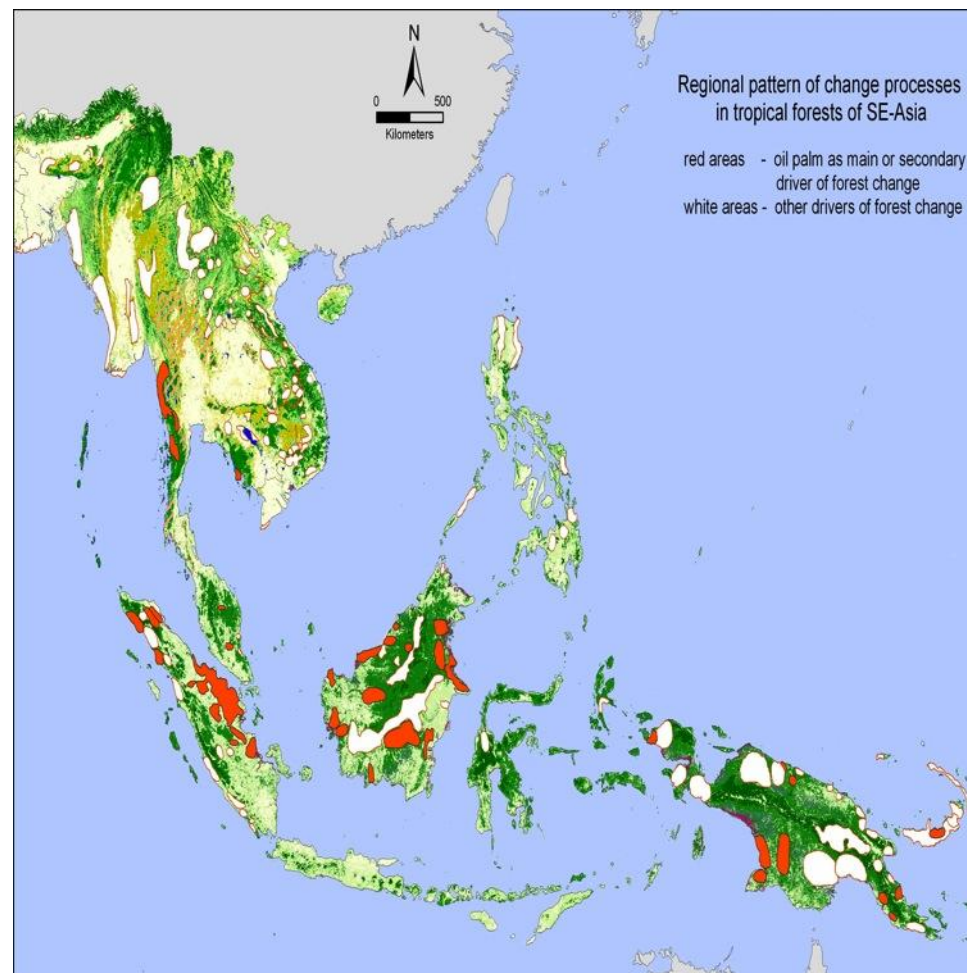
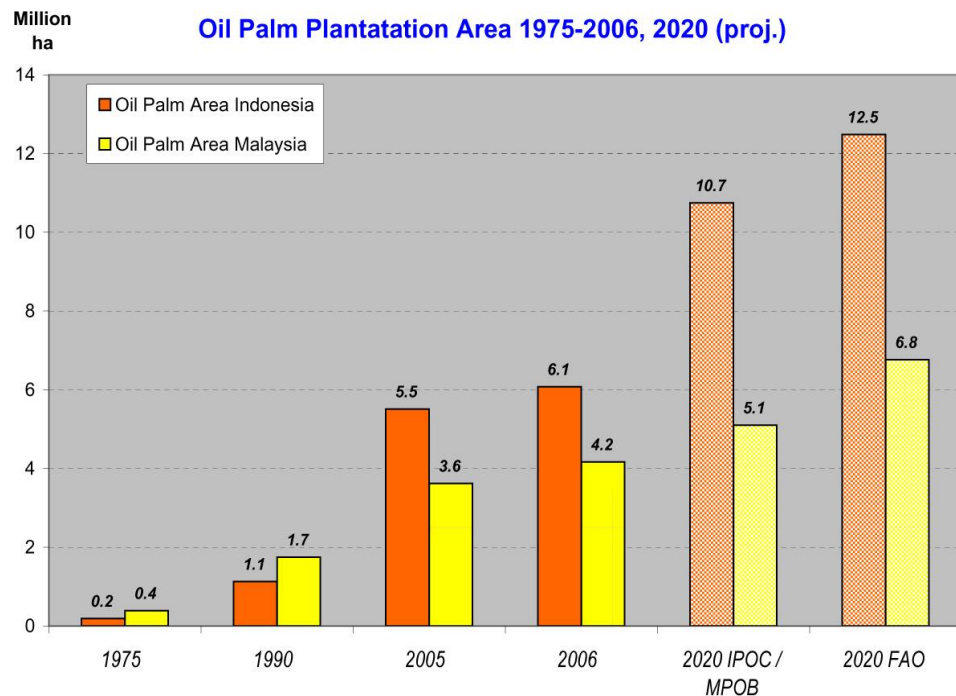
Activity 3. perspectives of technology transfer from Brazil or Europe to Latin American or tropical countries.

Three Expert workshops with LA Institutions will be organized for implementing the different activities.

Sustainability Assessment Example

□ Impacts of biofuels policies on tropical areas

- Direct and Indirect impacts
- Environmental/social effects in the producing countries
- Measures to limit deforestation and other damaging effects



EUrocLIMA – Drought/Desert

**Contact Person :
Dr. Paulo BARBOSA**

Paulo.BARBOSA@jrc.ec.europa.eu

Transferring 15 Years of Knowledge to Latin America

The following activities are planned under EUROCLIMA:

Activity 1. Drought map server for Latin America;

Activity 2. Map Server of Desertification/Natural Soil Degradation for Latin America

European Drought Observatory (EDO) - Vision

Communication on Drought and Water Scarcity
Drought Management Plans

Products

Rainfall Anomalies

Soil Moisture Anomalies

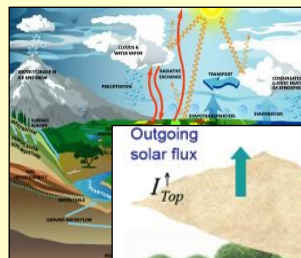
Vegetation Vigour

...

EDO Map Server

MONITORING & MODELLING

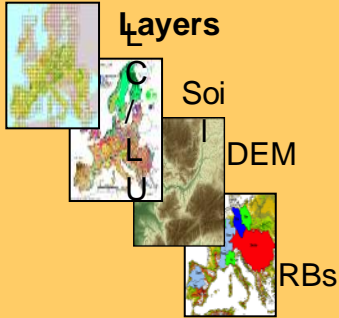
Hydrological Processes



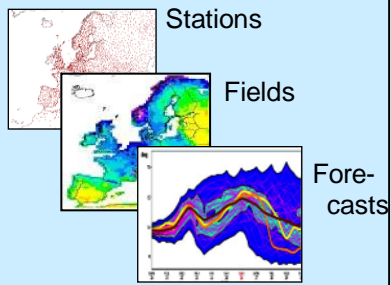
Land Surface Processes

European, MS, River Basin, ...
Authorities

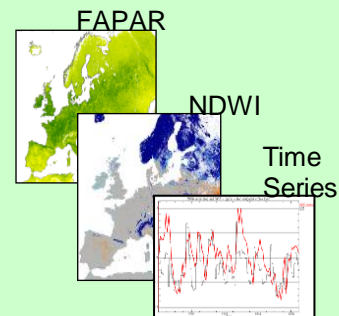
European Data Layers



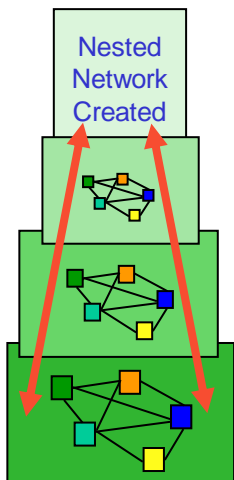
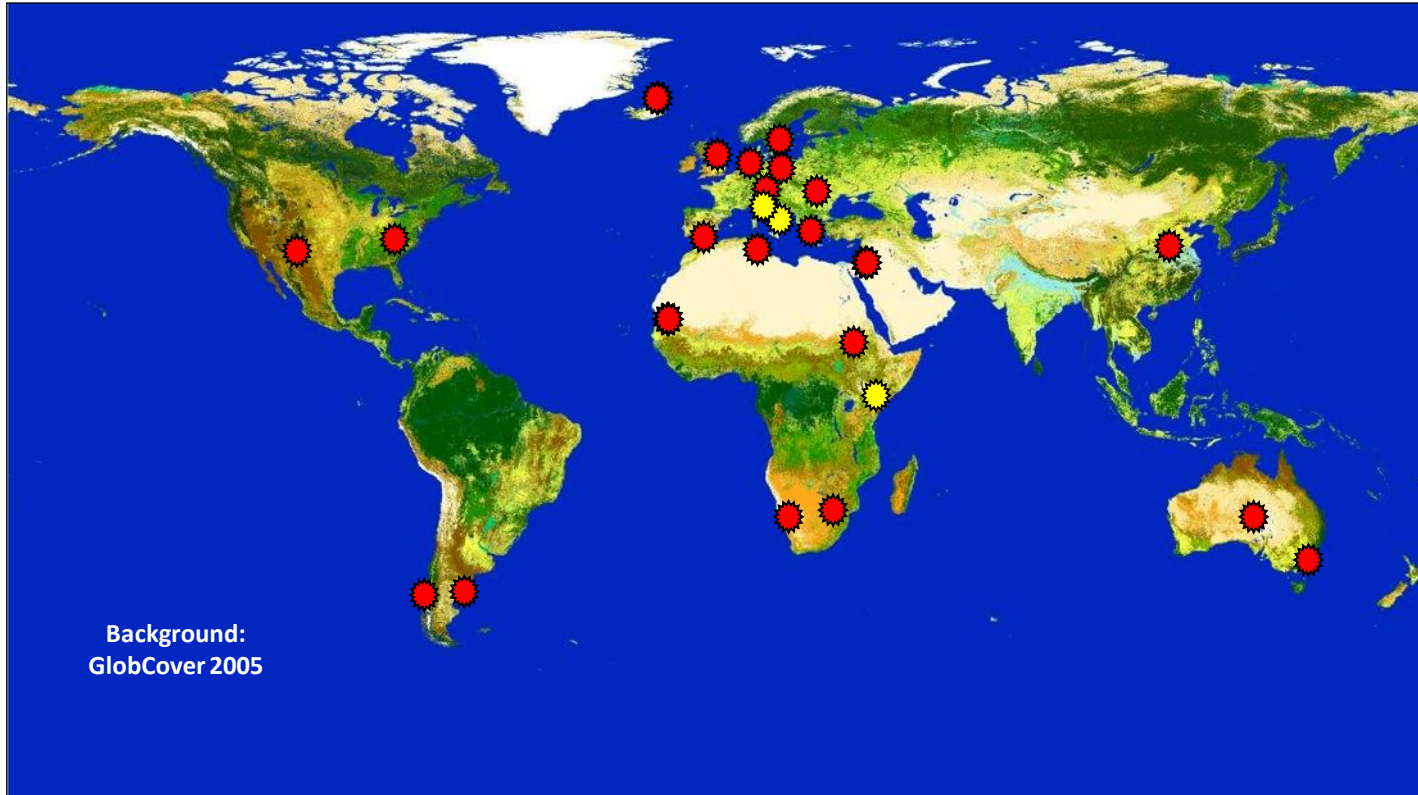
Meteorological Data



Remote Sensing Data



World Atlas on Desertification Land Degradation and Drought



EUrocLIMA – Water Resources

Contact Person :
Dr. Cesar CARMONA-MORENO

cesar.CARMONA-MORENO@jrc.ec.europa.eu

Integrating LA Institutions in an International Network of Centres of Excellence in Water

The following activities are planned under EUROCLIMA:

Activity 1. Implementing a Virtual Network of LA Institutions in Water Resources Management;

Activity 2. Regional Hydrologic Balance;

Activity 3. Water and Sanitation – Water Quality Analysis;

Implementing a Virtual Network of LA Research Institutions in Water Resources Management

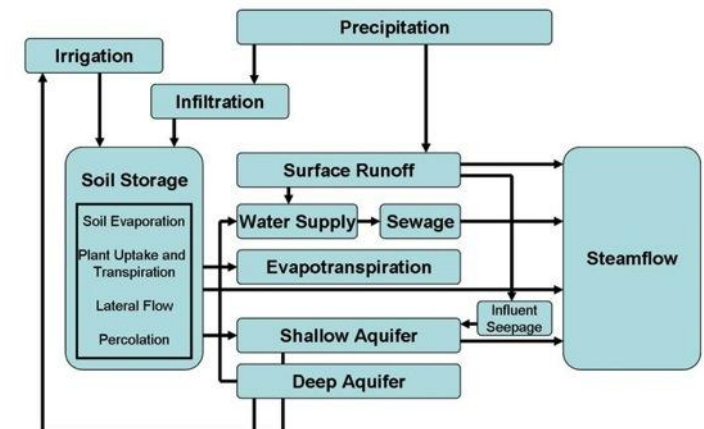
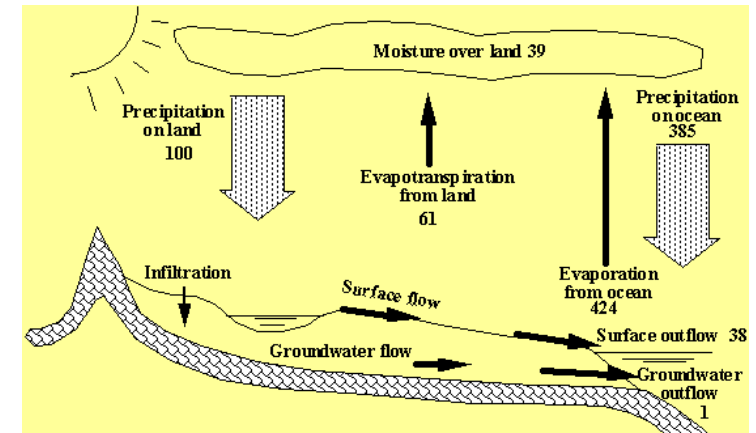
- **Continental Stakeholder Analysis**
- **Identification of Key LA Research Institutions**
 - Meeting of LA Expert (Quito, November 2010)
 - Working Groups - <http://AQUAKNOW.NET>
- **1st Coordination Meeting of International Centres of Excellence in Water in Developing Countries**
 - International Workshop on Water Resources Management :
 - Africa – Latin America – Europe and China (Ispra, July 2011)



Detecting Anomalies in the Water Cycle

Product: Regional Hydrologic Balance

- **Identification of User Needs :**
 - Regional Meeting of LA Experts in Water Management (Quito – November 2010)
- **Product Specification**
 - February 2011
- **Development and Implementation**
 - December 2012



Water and Sanitation – Water Quality

- **First Meeting: Quito November 2010**
- **Product Specification :**
 - February 2011
- **Development and Implementation:**
 - December 2012



**Muchas gracias
por su atención...**