



COST ACTION FP 1202

Strengthening conservation: a key issue for adaptation of Marginal/peripheral Populations (MaP/FGR) of forest trees to climate change

Christophe BESACIER
Valentina GARAVAGLIA

FORESTRY DEPARTMENT

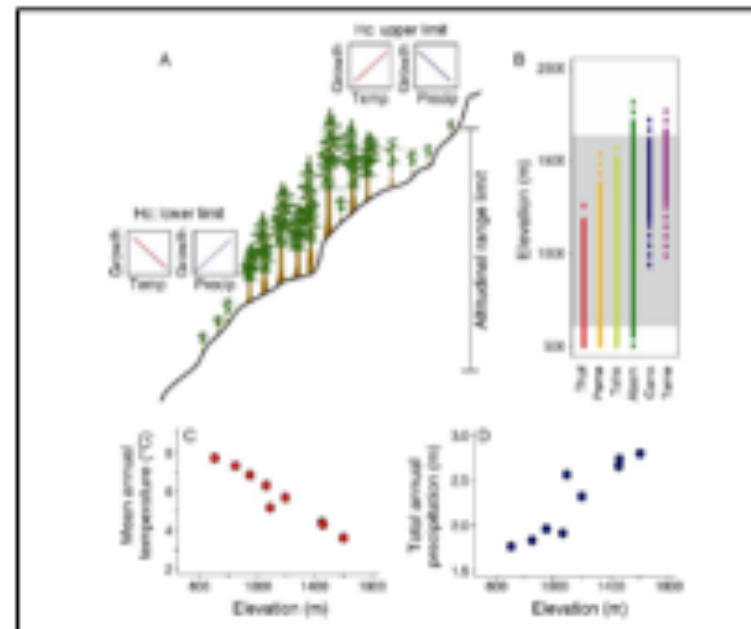
PROJECT PROPOSALS PREPARED BY:

Core group

Fulvio Ducci (CRA Arezzo), Bruno Fady (INRA Avignon),
Oudara Souvannavong (FAO) and Giovanni Giuseppe
Vendramin (CNR Firenze)

with key contributions of:

Hassan Sbay (Morocco);
Abdelhamid Khaldi (Tunisie);
Mari Rusanen (Finland);
Luc Paques (France);
Valentina Garavaglia (Fao);
Cristina Vettori (Italie)
Christophe Besacier (Fao).



PROJECT APPROVED BY COST OFFICE IN MARCH 2012



■ The 27 EU Member States

■ EU Acceding & Candidate Countries

- ▶ Croatia
- ▶ Former Yugoslav Republic of Macedonia
- ▶ Iceland
- ▶ Republic of Serbia
- ▶ Turkey

■ Other Countries

- ▶ Bosnia and Herzegovina
- ▶ Norway
- ▶ Switzerland

■ COST Cooperating States

- ▶ Israel



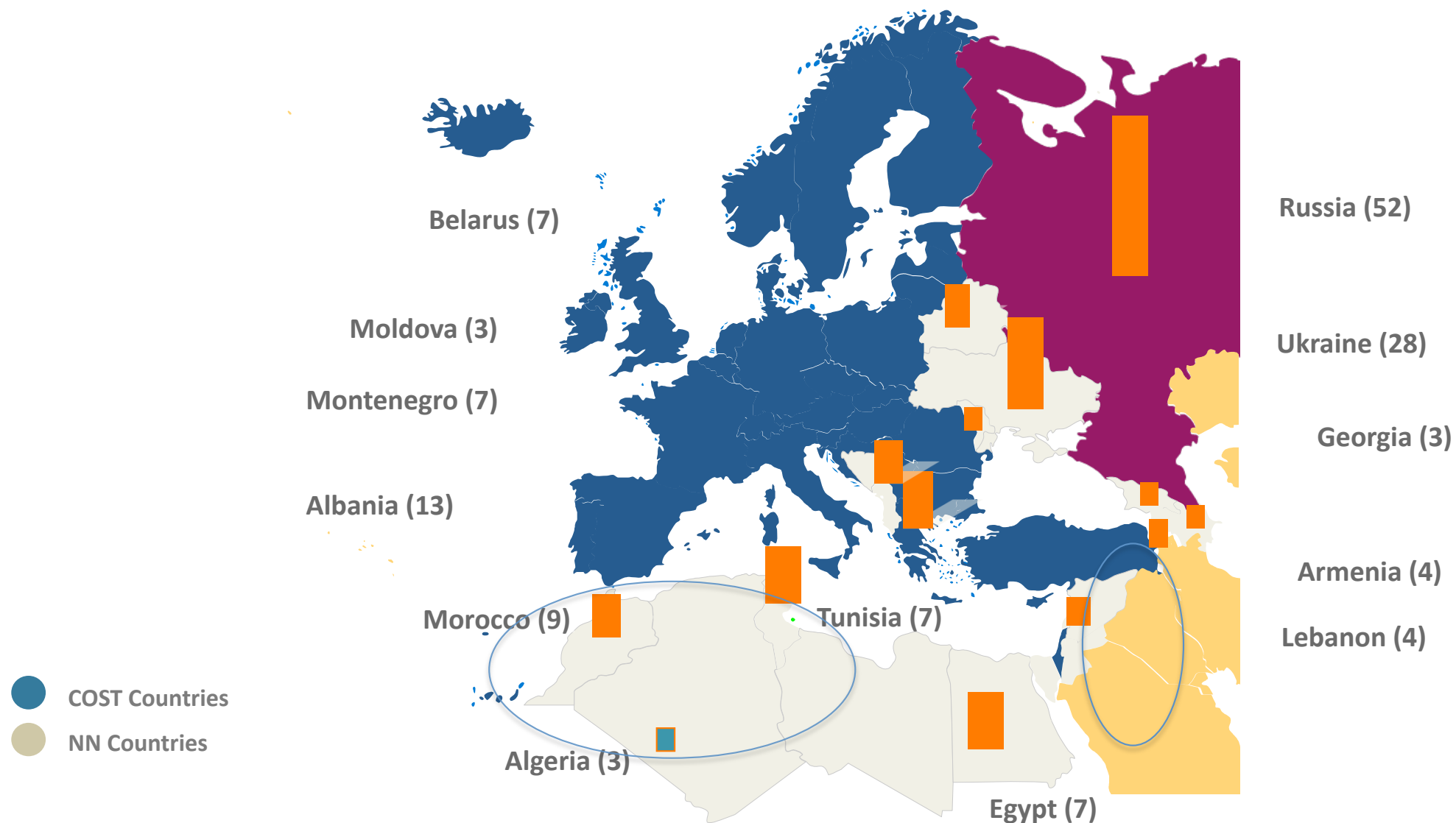
III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org

NEAR NEIGHBOUR COUNTRIES PARTICIPATION



III SFM
MFW

17-21 mars
march

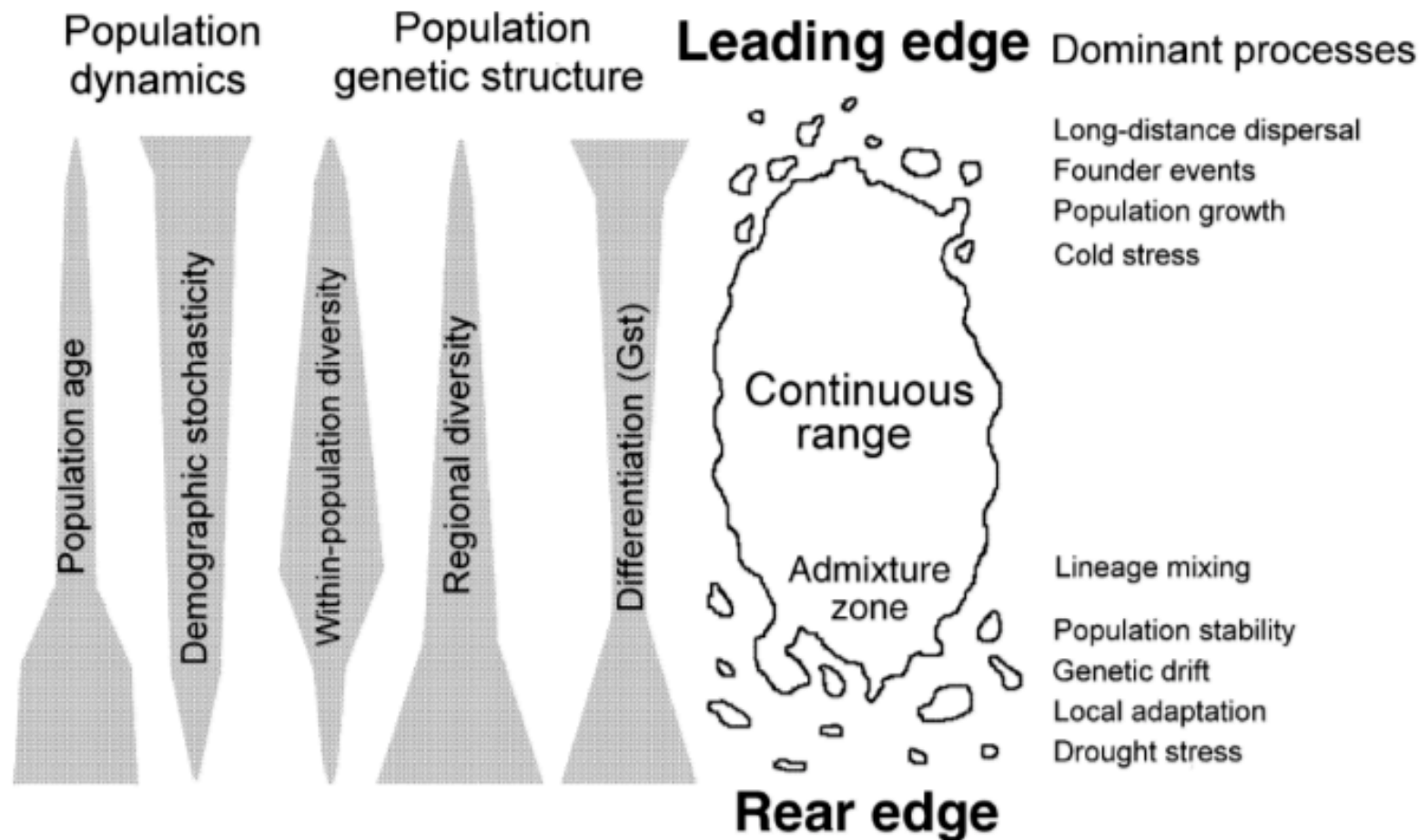
TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org

COST ACTION FP 1202 FOCUSED ON MaP FGR



Populations on the edges of species range can host patterns of genetic and adaptive information probably and possibly useful for adaptation and mitigation to Climate Change effects.



III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org

COST ACTION FP 1202 FOCUSED ON MaP FGR

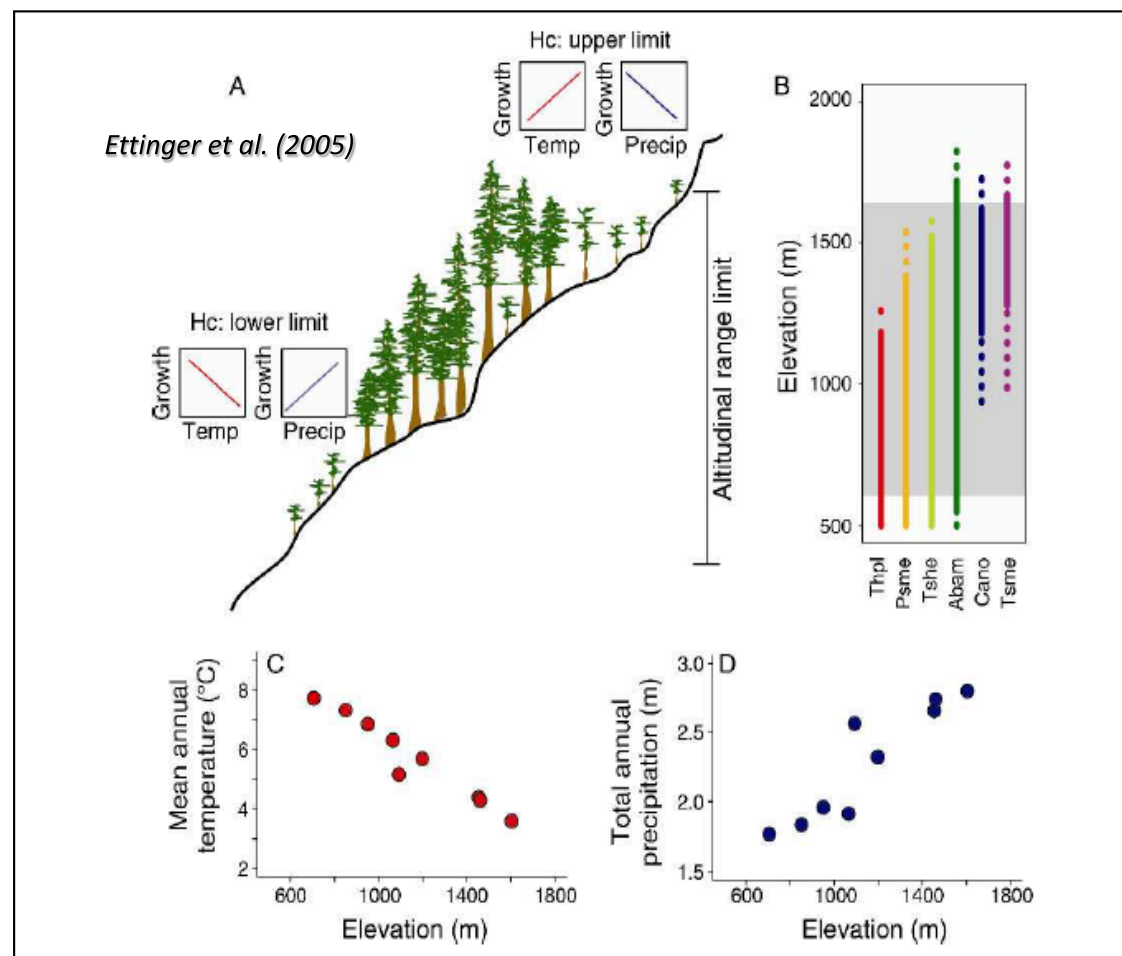


MaP populations may contain original genetic combinations of high value to adapt Mediterranean forests to global change

For example:

✓ *to drought in the south / at low elevation,*

✓ *to long distance dispersal and cold environments in the north / at high elevation).*



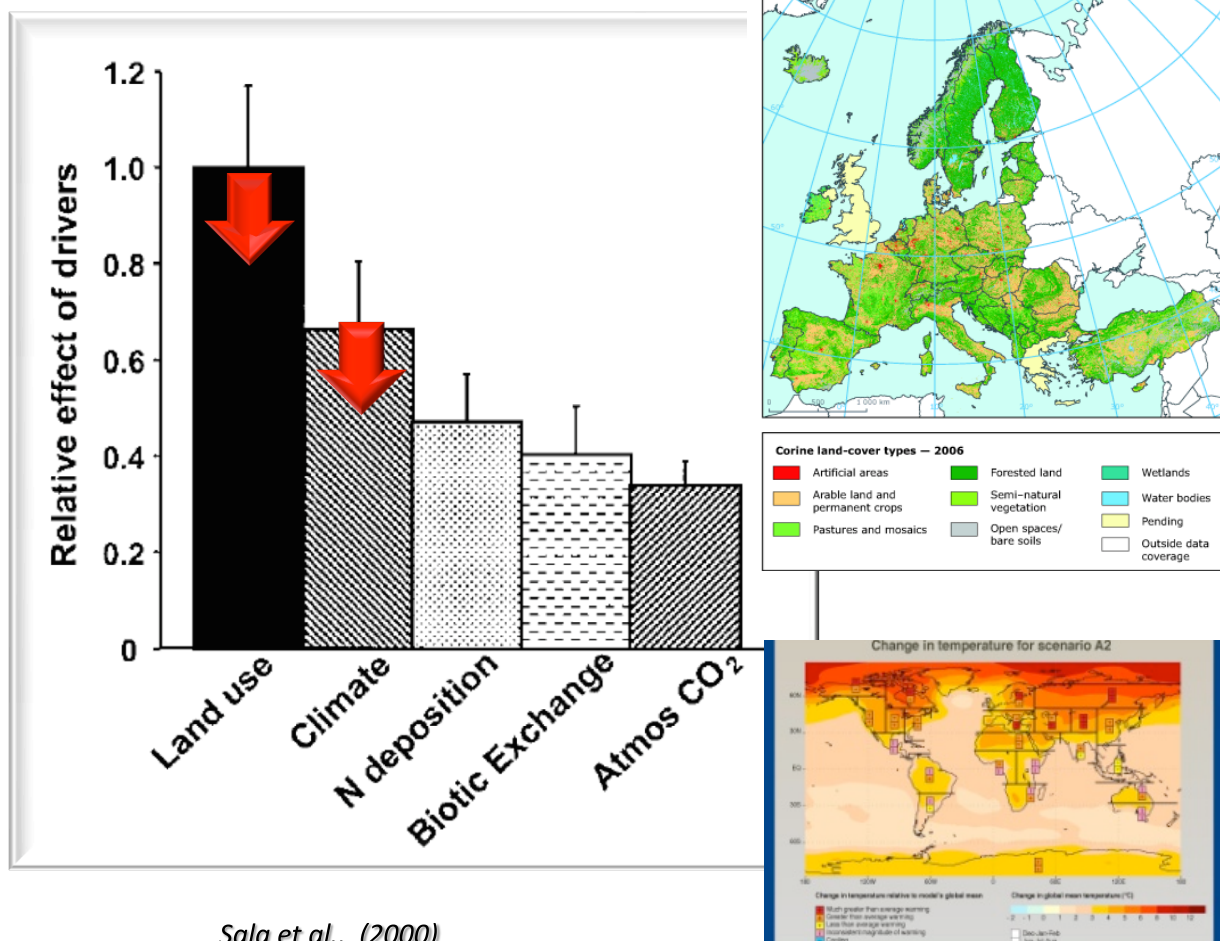
III SFM
MFW

17-21 mars
march

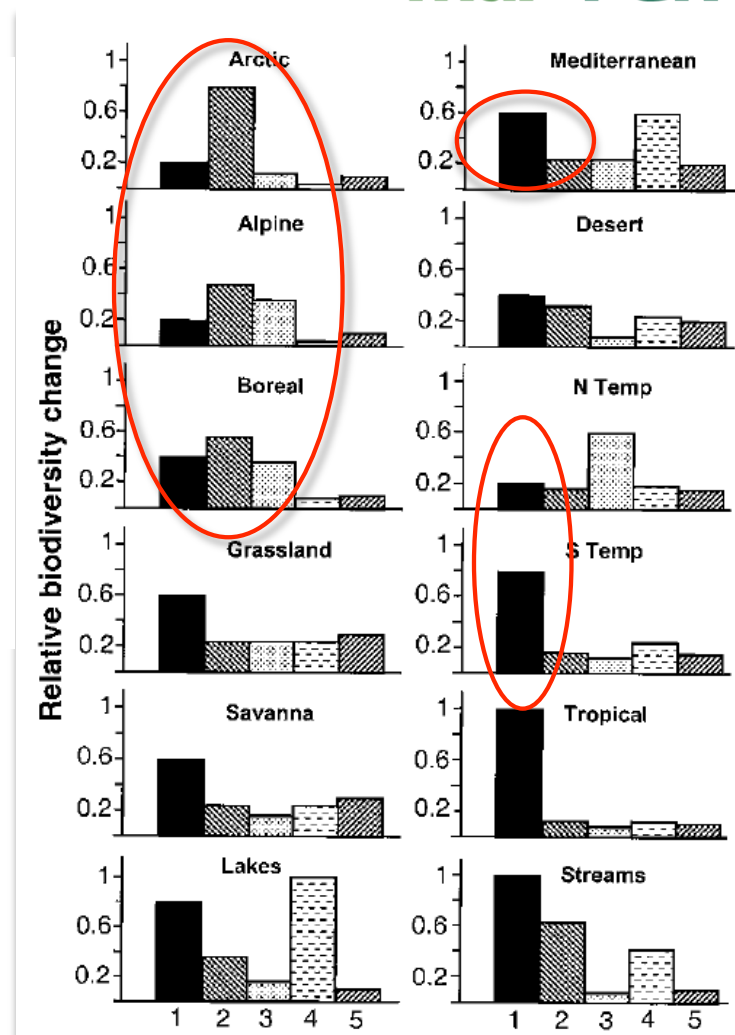
TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org

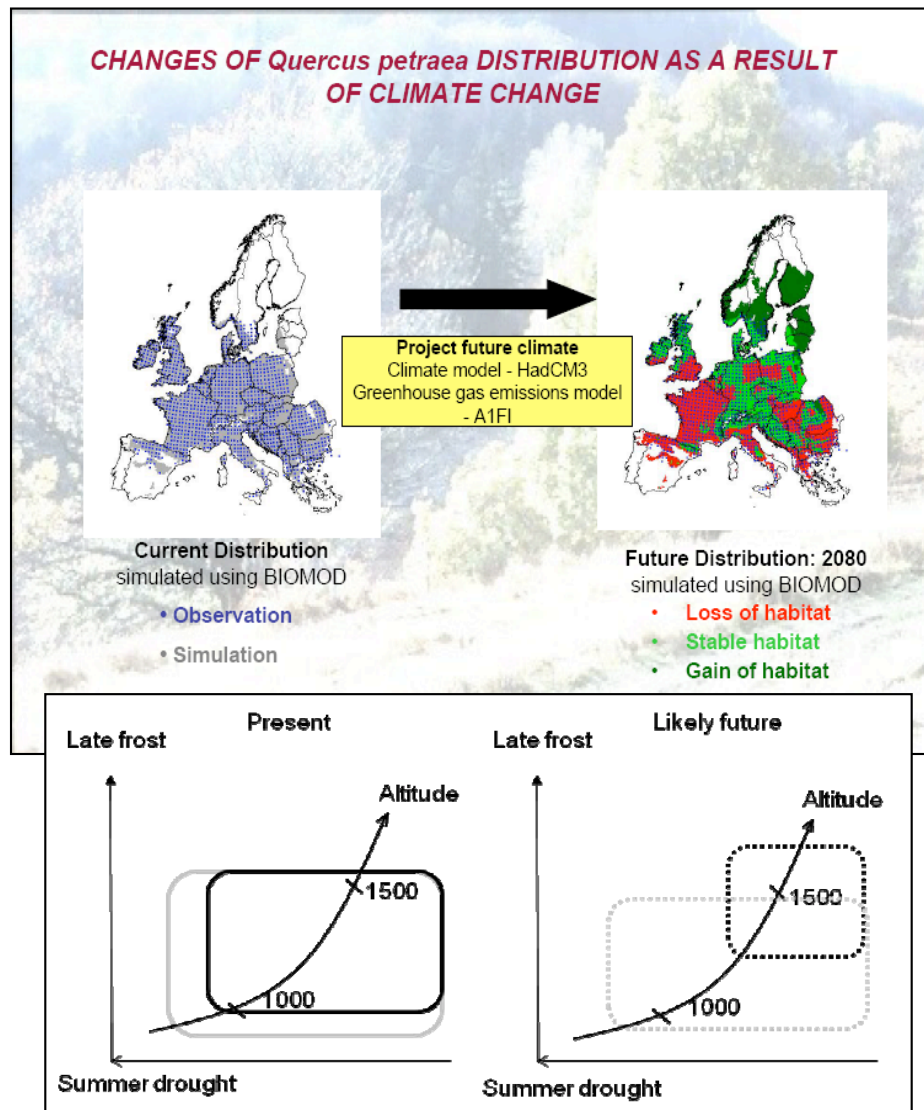
LAND USE AND CLIMATE CHANGE: MAIN DRIVERS OF ECOSYSTEM CHANGES IN THE MEDITERRANEAN



Sala et al., (2000)



MARGINAL/PERIPHERAL POPULATIONS: ADAPTIVE STRATEGIES AT RISK UNDER GLOBAL CHANGE



The geographical position of both rear edge and leading edge MaP populations will change dramatically in Europe and the Mediterranean within decades.

MaP populations may have specific adaptive strategies that will be useful for the future.

=> the Forest Community needs to strengthen conservation and management of MaP/FGR

Cailleret, Davi and Fady (2011)



III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org

WHY A COST ACTION ON THESE MaP/FGR



Information on MaP/FGR is already available but needs to be compiled and analyzed for adapting forest strategies to global change both at European and Mediterranean scale

It is urgent to collect the scattered information on

Marginal Peripheral Populations FGR

and make it available for those organisations and institutions that have to evaluate, manage and establish any action for adapting forests to global change effects.



III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org

SCIENTIFIC OBJECTIVE OF THE MaP/FGR COST ACTION FP 1202



Generate relevant knowledge on the role and use of Forest Genetic Resources (FGR) of Marginal / Peripheral (MaP) populations to adapt forests to global change using a multidisciplinary approach.

By gathering the best experts of European and Neighboring countries on forest ecology, genetics and climate modeling, the Cost Action FP 1202 will:

- ✓ compile and analyze existing information;
- ✓ spread knowledge to researchers and managers of European and non-European countries;
- ✓ help to develop criteria and indicators for forest strategies;
- ✓ establish an efficient multidisciplinary network on MaP/FGR.



III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org

HOW TO STRENGTHEN CONSERVATION AND MANAGEMENT OF MaP/FGR ?



- ✓ Maps and databases of scientific and technical information on ecological conditions of MaP populations (Task 1)
- ✓ Maps and databases of scientific, technical, human resources and strategies on MaP/FGR (Task 2)
- ✓ Analysis and synthesis of available MaP ecological and FGR information and knowledge gaps. Recommendations for forest managers and national policy makers (Task 3)
- ✓ Raising awareness and training forest managers, policy makers and researchers on the role of MaP/FGR for adapting forests to global change. Networking (Task 4).



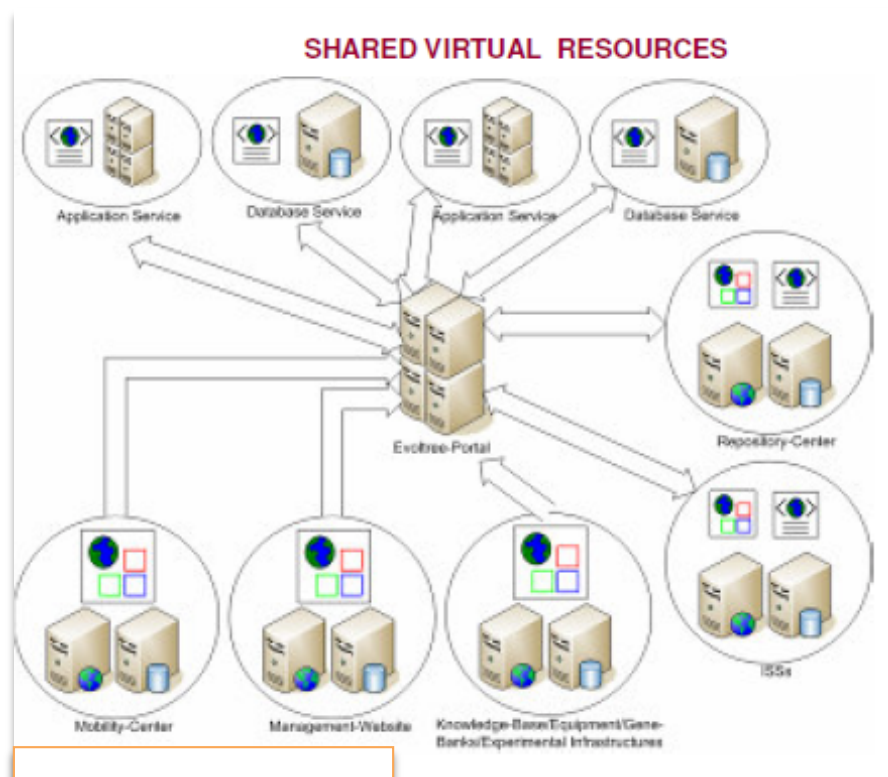
III SFM
MFW

17-21 mars
march

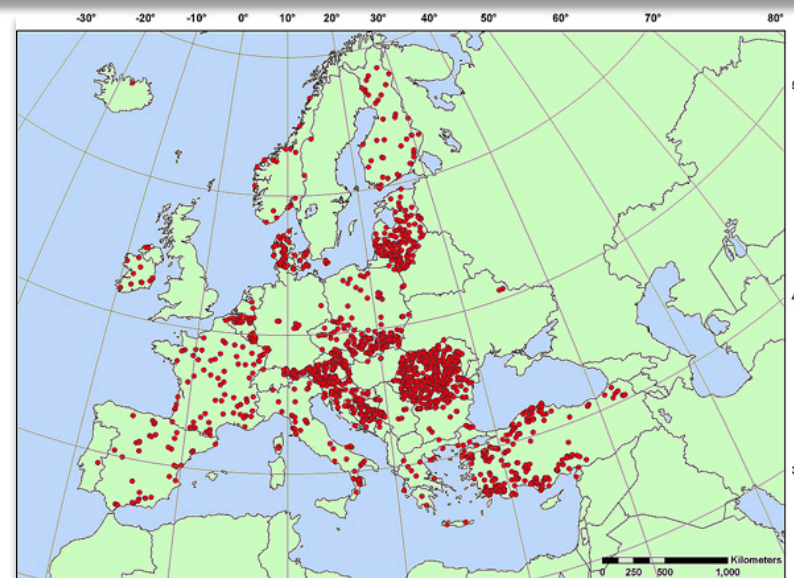
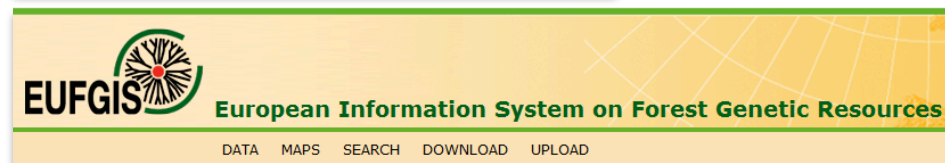
TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org

LINK WITH EXISTING DATABASES ON FGR



FAO *Silva Mediterranea* database on FGR (need to be updated)



III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

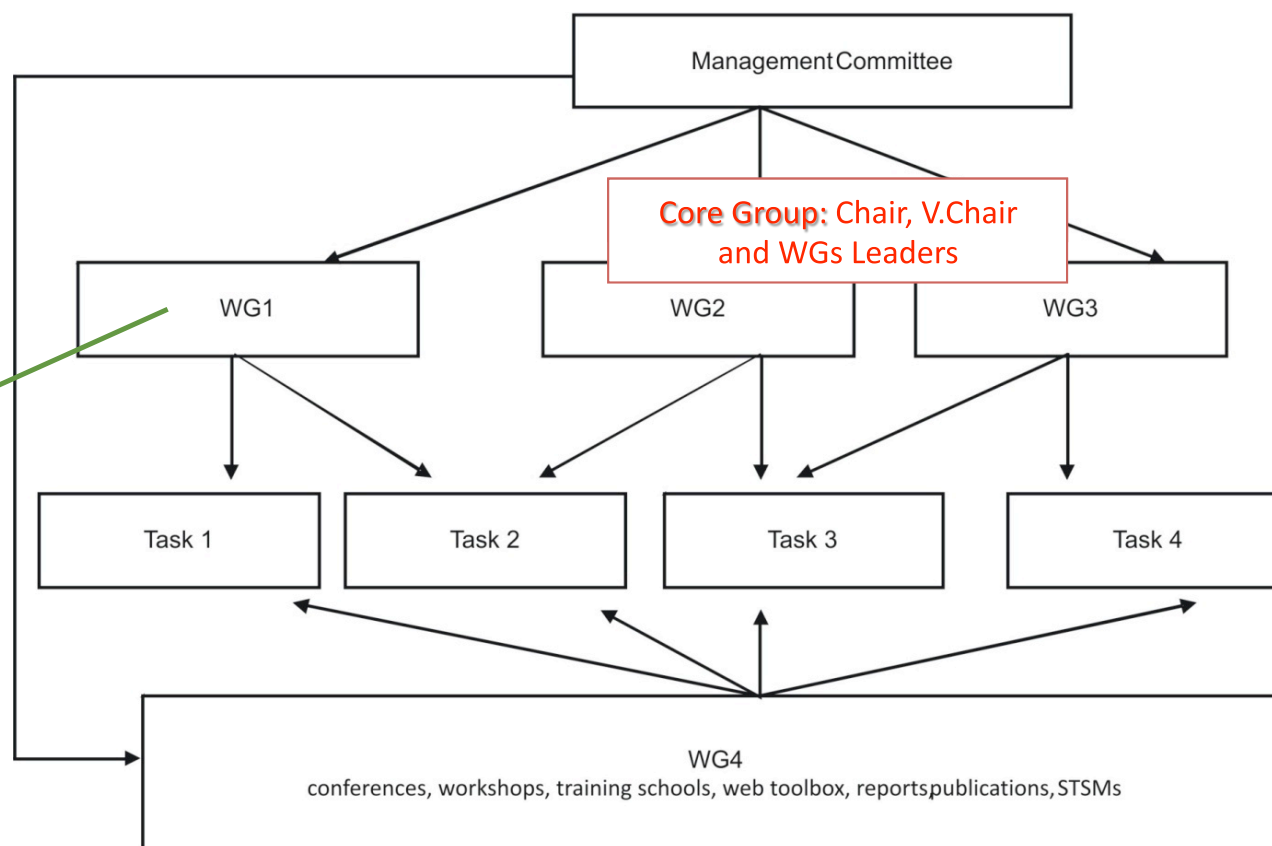
www.iii-med.forestweek.org

ORGANIZATION OF THE COST ACTION FP 1202



The 4 Tasks are coordinated by 4 Working Groups (WGs) to enhance collaboration between scientists and stakeholders

WG1: Gathering of already available data and compilation of ecological, genetic and global change information, and particularly climate effects, on FGR and distribution of MaP populations. Tasks 1/2



III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

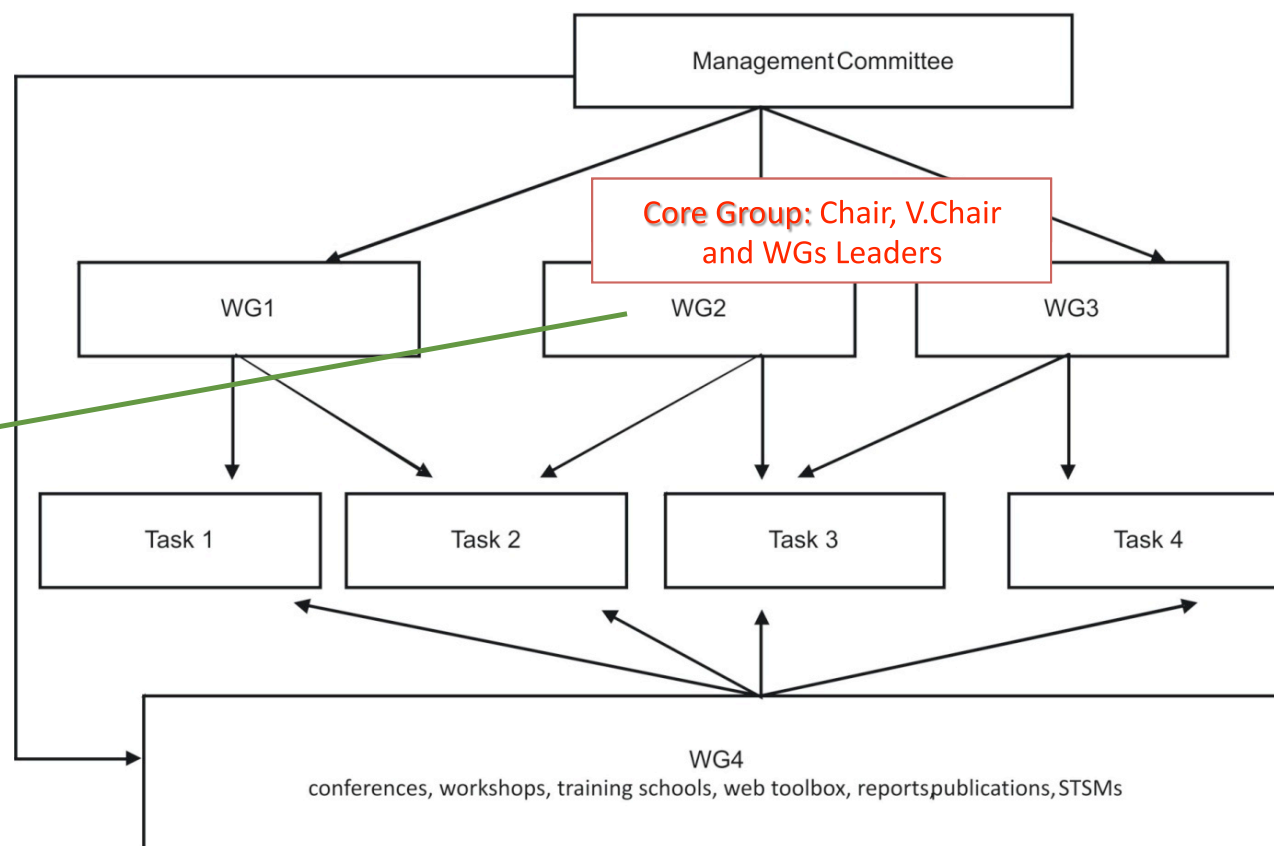
www.iii-med.forestweek.org

ORGANIZATION OF THE COST ACTION FP 1202



The 4 Tasks are coordinated by 4 Working Groups (WGs) to enhance collaboration between scientists and stakeholders

WG2: Evaluation and analysis of WG1 information (*genetic diversity maps per species/populations, methodology for evaluation of FGR diversity, compilation of databases of relevant institutions, genetic material, trials and networks, gaps of information*). Tasks 1/2



III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

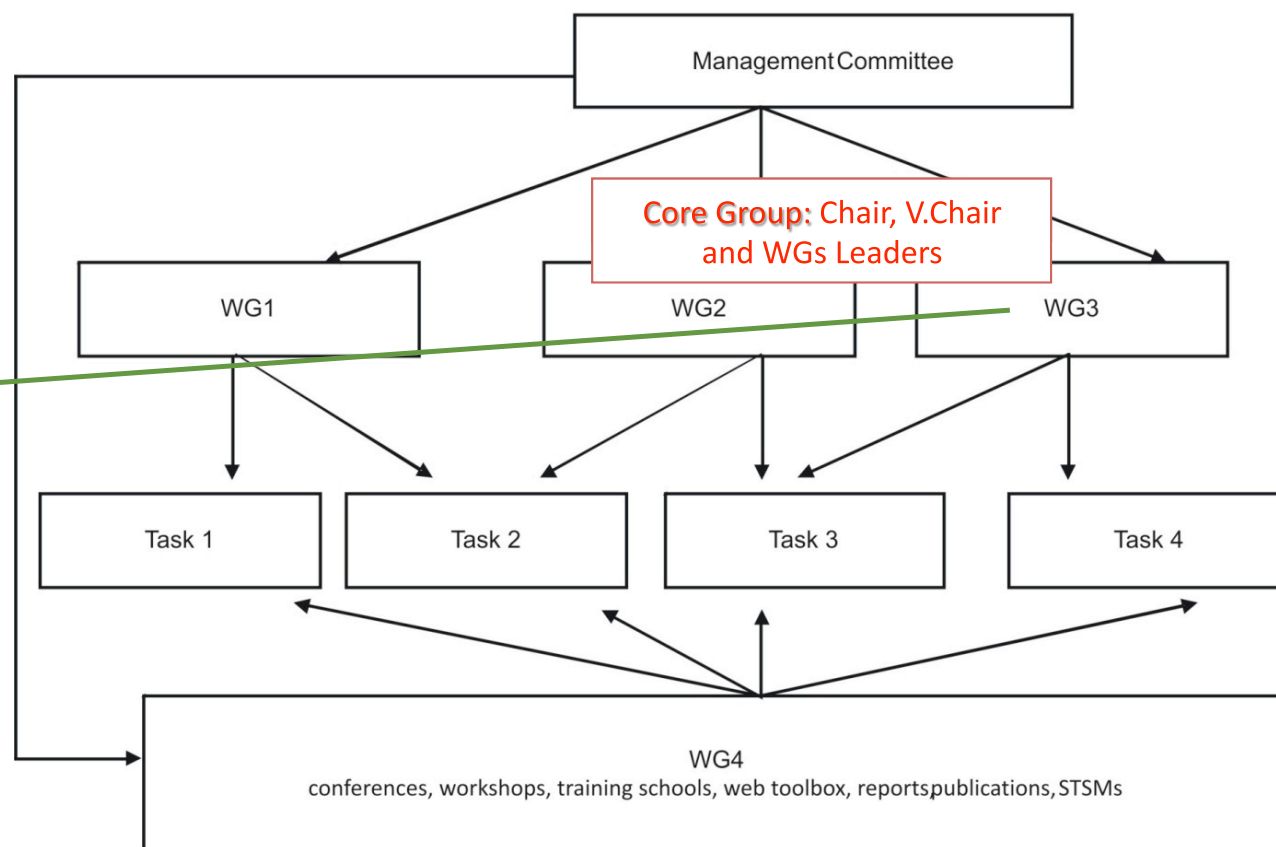
www.iii-med.forestweek.org

ORGANIZATION OF THE COST ACTION FP 1202



The 4 Tasks are coordinated by 4 Working Groups (WGs) to enhance collaboration between scientists and stakeholders

WG3: Mainstreaming genetic diversity into sustainable forest management in the context of global change, considering both conservation and use of FGR. Tasks 3/4



III SFM
MFW

17-21 mars
march

TLEMCEM | ALGÉRIE
ALGERIA

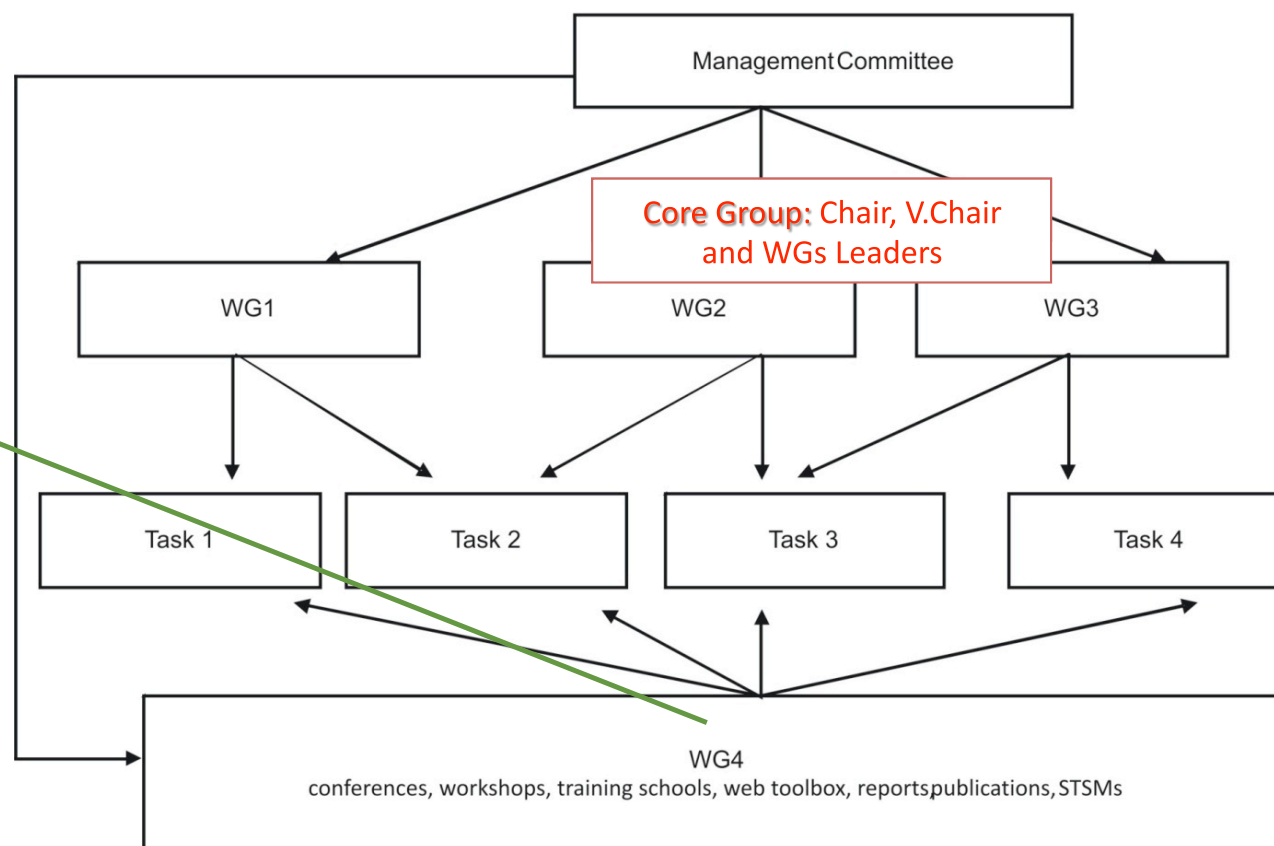
www.iii-med.forestweek.org

ORGANIZATION OF THE COST ACTION FP 1202



The 4 Tasks are coordinated by 4 Working Groups (WGs) to enhance collaboration between scientists and stakeholders

WG4: Coordination and organization of all networking, database management, training and communication activities. WG4 will provide the integrative approach of the Cost Action FP 1202 (Task 4) drawing information from Tasks 1, 2 and 3



III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org

DISSEMINATION ACTIVITY DURING THE COST ACTION FP 1202



- ✓ Working Group meetings to develop activities of the COST FP 1202
- ✓ Training: Short Term Scientific Mission and Training Schools
- ✓ Workshops at national/international level
- ✓ Conference presentation of the COST activities/results
- ✓ Information dissemination to a wide audience through the Website and related activities of the participants
- ✓ Publication in international peer-reviewed journals
- ✓ Cooperation with parallel international programs national authorities, stakeholders and decision makers
- ✓ Exchanges of information with IUFRO Working Groups, FAO *Silva-Mediterranea Working Group on FGR*, Euforgen and Forest-Based Sector Technology Platforms



III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org

PARTNERS INVOLVED IN COST ACTION FP 1202



23 COST Countries up to now:

Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Denmark, Germany, Spain, Finland, France, Greece, Hungary, Italy, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Serbia, Switzerland, Turkey, United Kingdom.

5 Non Cost Near Neighbor

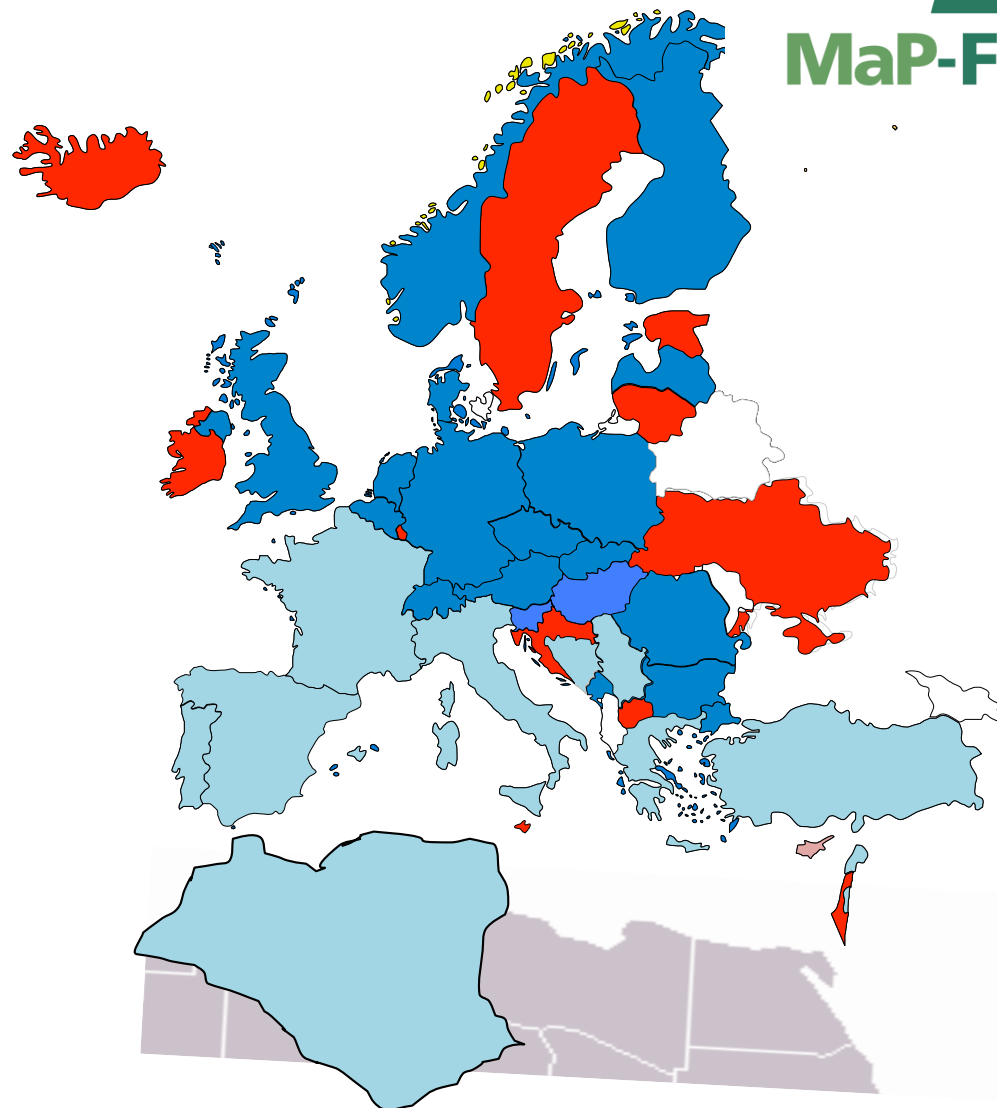
Countries: Algeria, Lebanon, Morocco, Syria, Tunisia.

5 International Bodies: Bioversity International, CIHEAM, EFIMED, FAO, IUFRO (WP 2.04.02 and WP 2.02.13).

The remaining **COST Countries** will be invited to join by end of 2013.

Near Neighbor Countries to invite: Russia, Ukraine, Georgia, Montenegro

Stakeholders to invite: National Forest services, Protected areas, NGOs



Modified from COST overview June 2009 document



III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org

TIME TABLE OF THE COST ACTION FP 1202



Activity	YEAR 1				YEAR 2				YEAR 3				YEAR 4			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Kick-off meeting	X															
MC-WG meetings			X				X				X		X			X
WGs activity	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Workshops				X				X			X				X	
STSM calls		X		X		X		X		X		X		X		X
Training school			X				X				X					
Dissemination			X	X	X	X	X	X	X	X	X	X	X	X	X	X
Final Conference																X
Final Book																X



III SFM
MFW

17-21 mars
march

TLEMSEN | ALGÉRIE
ALGERIA

www.iii-med.forestweek.org