



ASSOCIAZIONE
ITALIANA
PER LA
INGEGNERIA
NATURALISTICA



3° CONVEGNO INTERNAZIONALE DI INGEGNERIA NATURALISTICA

Materiali e Tecniche per il Recupero degli Ecosistemi

Parco dei Nebrodi - 13, 14 e 15 ottobre 2017

CALL FOR ACTIONS

The participants of the "3rd International Symposium of Soil and Water bioengineering" organized by the "Ente Parco dei Nebrodi", the C.I.R.I.T.A. of the University of Palermo (Italy) and the AIPIN (Italian Association for BioEngineering) in Sant'Agata di Militello (Messina) in the Nebrodi Park on 13-14-15 October 2017, at the end of the conference work they bring to the attention of the population and, in particular, of the political and administrative class, the urgency to undertake as soon as possible regional policies and effective actions for adaptation to Climate Change.

In particular, the Council formed by numerous representatives of the national and international scientific and professional world, highlighted two critical priorities:

- The risk of desertification with dramatic consequences on ecosystems, agriculture, tourism, freshwater supply, and the health of citizens;
- The risk of possible extreme weather events, localized to produce landscape instability, landslides and floods, even in the urban area, of critical proportions

Our proposal is to prepare as soon as possible a programme of adaptation to Climate Change that passes through the restoration, the recovery and the renaturation of degraded ecosystems. In particular, it is planned to implement interventions to improve the resilience of ecosystems and the natural and ecological recovery of terrestrial and aquatic ecosystems, articulated in the following objectives:

1. To improve the microclimate through an adequate plant cover that involves the use of indigenous herbaceous, shrub and tree species ecologically compatible with the intervention sites.
2. Introduce species with biotechnical characteristics suitable for addressing the new challenges arising from changes, which requires an adequate experimentation necessary to test the responses not only of the different species, but also of the herbal combinations and of the planting techniques.
3. Drastically limit the phenomena of soil erosion and landscape instability with appropriate naturalistic techniques and reforestation interventions, also using indigenous shrub species.
4. Restoring landscape connectivity and reducing habitat fragmentation.
5. To safeguard habitats, endemic and rare species of flora from invasive species.

6. To increase the resilience of coastal marine ecosystems and to counteract the release of greenhouse gases through reforestation and restoration interventions with marine *phanerogram* on the degraded seabeds.
7. Facilitating, monitoring and managing the adaptation of wildlife and habitats to Climate Change.
8. Improving the protection of aquifers, with priority for the most vulnerable ones.
9. Restore the morphological diversity of watercourses.
10. Apply the techniques of Water & Soil Bioengineering for the maintenance of the territory.
11. Take sustainable actions to prevent the damage to the Natural and Cultural Capital of the territories.
12. In general, increase the Natural and Cultural Capital of the regional territories.

We remind that an extensive documentation is available for defining the priority areas on which to operate, and a wide range of multidisciplinary competences suitable to provide coherent design solutions to meet the goals of the objectives. We also remind that not intervening in time will cost much more than the costs of intervention themselves.

The institutions, the professors and the associations present in this Symposium are ready to get involved and work with the Political actors to address choices towards feasible and scientifically coherent policies. They are also ready to provide information for the citizens.

The institutions and associations present today ask the Presidents of the Italian regions to include in their political agendas the "Green infrastructure programme for the renaturalisation of ecosystems" as a priority programme and, at the same time, to proceed quickly to allocate and find the sums necessary for the first interventions.

S. Agata di Militello (Messina), 14 October ' 17