

**SERE 2018 Restoration in the Era of Climate Change**  
9-13 September, Reykjavik, Iceland



# **INTERACTIVE WORKSHOP**

## **ECOLOGICAL RESTORATION: EDUCATION, TRAINING, COMMUNICATION AND OPPORTUNITIES FOR EMPLOYABILITY**

**TUESDAY, 11 SEPTEMBER, 13:30-18:30 h**

### **OBJECTIVES**

- Contribute to a more resilient environment through sustainable management and meet international commitments on land restoration
- Fulfil the demands of an emerging labour market with important implication for rural development (multiplicative effect on green economy).
- Discuss about a possible Network on Education and Training on Ecological Restoration (reverse of this leaflet)

### **STRUCTURE**

#### **13:30-15:30 PART I**

13:30-13:50. Presentation of the workshop

13:50-14:10. Cortina-Segarra : Using participatory processes to define priority areas for restoration in a heterogeneous Mediterranean forest landscape

14:10-14:30. Rodríguez-González: Knowledge transfer across regions, disciplines and stakeholders in riparian restoration: educational issues

14:30-14:50. Schmidt: The difficult step from awareness to action

14:50-15:10. Magnúsdóttir: An educational programme for icelandic eco schools on restoring eroded land

15:10-15:30. Benning: Examining the language and potential environmental consequences of media coverage of California wildfires

#### **16:30-18:30 PART II**

16:30-16:50. Merino: International collaboration and virtual learning as tools to improve training and employability on land restoration

16:50-17:10. Cortina-Segarra: Knowledge exchange in ecological restoration: dealing with complexity, uncertainty and plurality of values

17:10-17:30. Rey Benayas: Keys to success and challenges of the master's programme on ecosystem restoration taught in Madrid

17:30-17:50. Zaady: Technology, education and cultural (tec) model in ecology, environment and sustainability course by using collaborative e-learning model

17:50-18:10. Presentation of the proposal for the network on education in ecological restoration within SER

17:20-18:30. Discussion based on the survey

**WE EXPECT YOUR VALUABLE CONTRIBUTION**

## Network on education and training for ecological restoration

This network has been initially proposed by the following group of people, BUT it is open to any other person

Agustin Merino<sup>1</sup>, Patricia M. Rodríguez-González<sup>2</sup>, José M. Rey-Benayas<sup>3</sup>, José L. García<sup>4</sup>, Martin Giménez<sup>4</sup>, Rosemarie Stangl<sup>4</sup>, Paola Sangalli<sup>5</sup>, Eli Zaady<sup>6</sup>, Miriam Muñoz-Rojas<sup>7, 8, 9</sup>, Verónica Piñeiro<sup>1</sup>, Maxwell Benning<sup>10</sup>, Guðrún Schmidt<sup>11</sup>, Rannveig Magnúsdóttir<sup>12</sup>, Simon Dufour<sup>13</sup>, Ása Aradóttir<sup>14</sup>, Jordi Cortina<sup>15</sup>

<sup>1</sup> University of Santiago de Compostela ([agustin.merino@usc.es](mailto:agustin.merino@usc.es)), Spain, <sup>2</sup> Centro de Estudos Florestais, Instituto Superior de Agronomia, Universidade de Lisboa, Lisboa, Portugal, <sup>3</sup> International Foundation for the Restoration of Ecosystems, Ecology Department, Alcalá University, Alcalá de Henares, Spain, <sup>4</sup> President of European Federation for Soil Bioengineering, Sangalli Coronel y Asociados S.L. Spain. <sup>5</sup> Department of Civil Engineering and Natural Hazards, BOKU, Vienna, Austria. <sup>6</sup> Kaye Academic College of Education, Beer Sheva, Israel <sup>7</sup> School of Biological Sciences, The University of Western Australia, WA, Australia; <sup>8</sup> Kings Park Science, Department of Biodiversity, Conservation and Attractions, Kings Park, WA, Australia; <sup>9</sup> School of Biological, Earth and Environmental Sciences, The University of New South Wales, Sydney, NSW, Australia. <sup>10</sup> Northern Arizona University, San Diego, United States of America. <sup>11</sup> Soil Conservation Service of Iceland. <sup>12</sup> Landvernd Icelandic Environment Association. Iceland. <sup>13</sup> Univ Rennes, CNRS, LETG, France. <sup>14</sup> Agricultural University of Iceland. <sup>15</sup> Chair of the Society Ecological Restoration-Europe ([jordi@ua.es](mailto:jordi@ua.es)).

The overall objective of this network is to improve training capacities on ecological restoration and land rehabilitation in order to a) contribute to a sustainable environmental management and meet international commitments on ecological restoration and, b) to fulfil the demands of an emerging labour market with crucial implications for rural development, promoting a multiplicative effect on green economy. In this context, an overarching priority of this network will be to encourage the involvement and on-board participation of students and early career researchers to increase the long term impact of this capacity building initiative.

This network will enhance international innovative learning opportunities by a) Conveying appropriate knowledge to recover degraded environments, b) Exchanging technical expertise, good practices and teaching materials, c) Promoting collaborative projects on education, training and knowledge transfer, d) Organizing specialized education and training activities, e) Establishing a virtual platform for the exchange of training and educational materials and demonstration field plots.

The employability skills will be enhanced by means of collaborations with companies, national and international agencies (internships, training plots, courses), specific training on employability and entrepreneurship of students (cooperation between companies, NGO'S, and specific units at the universities, and promoting links with international platforms such as ILTER,...).

To increase the scope of this strategy, the network pursues to grow on and reinforce the synergies between Universities including teachers, researchers, students, and structures focused on innovative learning and employability; vocational schools; private companies in the field of ecological restoration; NGOs and Volunteer organizations; Research centers; Policy makers (national and regional departments for development).

With respect to its management, this network will be promoted by the European Chapter of the Society for Ecological Restoration and will coordinate efforts with national and international organizations such as scientific institutions, industry and, NGOs. The network will be managed by a working group hosted in the Society for Ecological Restoration (SER):

Specific objectives of the network may be:

- a) Design and implement the dissemination strategy for relevant training events: webpage hosted in the SER and social networks such as Twitter, Facebook, Youtube Channel.
- b) Promote the production of training materials and resources,
- c) Organize workshops on Education at regular SER meetings or other events; give support to the annual official SER training school, and give support to other initiatives,
- d) Report the working group in regular SER conferences
- e) Promote collaborative projects in international programs (including ITN, Erasmus + and COST actions).
- f) Design a long-term strategy to maintain, reinforce and enlarge networking effort and synergies with supporting institutions linked through SERE or others.



## INNOVATIVE TEACHING IN LAND DEGRADATION AND REHABILITATION

Erasmus + LANDCARE PROJECT (<http://www.landcare.es>)

### SURVEY ON LAND RESTORATION EDUCATION CAPACITIES

Multiple drivers are causing a dramatic increase in the extent of degraded lands across Europe and all over the World. Overexploitation, wildfires, pollution, and degradation of rivers and coastal areas cause severe ecological disturbances, with strong negative and pervasive consequences for the environment, the economy, the development of rural areas and human health.

The LANDCARE PROJECT aims at fostering the restoration of degraded lands by supporting innovative education and training actions in this area. We'd like to identify the main needs and priorities in this area. **Please, take some minutes to fill this survey and deliver it at the SER Europe booth/Conference desk or send it to [landcare.project@usc.es](mailto:landcare.project@usc.es) (SUBJECT: SURVEY)**

**Optional:** Surname: \_\_\_\_\_ Name: \_\_\_\_\_  
Email: \_\_\_\_\_  
- Gender (F/M) \_\_. Age \_\_  
- Country of work \_\_\_\_\_. Geographical region/State of work \_\_\_\_\_

#### 1. About you:

1a. **Your main expertise/interest:** Croplands\_\_ Forests\_\_ Mining areas\_\_ Rivers and lakes\_\_  
Wetlands \_\_ Coastal areas \_\_ Fisheries\_\_ Grasslands\_\_ Other (describe) \_\_\_\_\_

1b. **Are you** Lecturer\_\_ Researcher\_\_ Manager\_\_ NGO\_\_ Policy-maker\_\_ Student\_\_ Other (describe) \_\_\_\_\_

1c. **University** \_\_\_\_ **Public administration** \_\_\_\_ **Company** \_\_\_\_  
\_\_\_\_\_**NGO** \_\_\_\_\_ **Other (specify)** \_\_\_\_\_

1d. If you are involved in teaching, mention the **titles of the courses or topics related to ecological restoration that you teach**, indicating if they are at the level of under-graduate (U), Master (M), doctorate (D) or non-formal education (N):  
\_\_\_\_\_

2. Do you think that the **reinforcing of teaching** on land restoration might contribute to improve the implementation of ecological restoration in your country of work?

YES \_\_

NO \_\_

Comments (optional): \_\_\_\_\_

3. Do you think **ecological restoration studies** are properly addressed in your country of work?

YES \_\_ NO \_\_

If not, could you point out the main limitations?

- Syllabus \_\_\_\_\_

- Teaching materials \_\_\_\_\_

- Practices in the field \_\_\_\_\_

- Real-world restoration examples \_\_\_\_\_

- Practices in the laboratory \_\_\_\_\_
  - Resources \_\_\_\_\_
  - Internationalization \_\_\_\_\_
  - Social engagement (companies, administration, NGOs...) \_\_\_\_\_
  - Other: \_\_\_\_\_
- Comments: \_\_\_\_\_
- 

4. Are the available **teaching materials (bibliographic audiovisual materials) and real-world restoration examples** appropriate for teaching?

YES \_\_\_

NO \_\_\_

If not, could you please point out the main limitations:

- Not related with the main problems of the region \_\_\_\_\_
- Not updated \_\_\_\_\_
- Lack of local case studies \_\_\_\_\_
- Language limitations (translation required) \_\_\_\_\_
- Other: \_\_\_\_\_
- Comments: \_\_\_\_\_

5. Which are the main barriers hampering the **development of the employment sector in ecological restoration**?

- .- Lack of awareness of the population \_\_\_\_\_
- .- Disparate interests and expectations across actors \_\_\_\_\_
- Lack of staff with enough expertise \_\_\_\_\_
- .- Lack of funds/incentives \_\_\_\_\_
- Lack of coordination among public administrations \_\_\_\_\_

Comments (optional): \_\_\_\_\_

---

6. A group of educators/researchers are currently promoting an international **network for training and education in ecological restoration**. The objective is to improve the training capacities on ecological restoration by sharing training opportunities, tools and projects.

6a. Would you be interested in becoming an active member of such network? YES \_\_\_ NO \_\_\_

6b. Would you be interested in receiving updates on the advances of this network? YES \_\_\_ NO \_\_\_

If you answered YES, please indicate your contact  
(email): \_\_\_\_\_

6c. SER Europe organizes and supports summer courses, workshops and other education activities. Please identify, for future activities:

- the priority **topic(s)** that should be addressed: \_\_\_\_\_
- the optimum **duration** of such activities: \_\_\_\_\_
- Additional suggestions: \_\_\_\_\_

Please, deliver this survey at the SERE Conference desk or send it to [landcare.project@usc.es](mailto:landcare.project@usc.es)  
(SUBJECT: SURVEY)

The results of this survey will be published in <http://www.landcare.es>

**WE HIGHLY APPRECIATE YOUR VALUABLE CONTRIBUTION.**