



LIFE  
VIMINE

VENICE  
INTEGRATED MANAGEMENT  
OF INTERTIDAL ENVIRONMENTS

## THE FINAL CONFERENCE OF LIFE VIMINE

On Thursday 22nd of June 2017, the final conference of the project LIFE VIMINE took place in Venice, at the Venetian Institute of Sciences, Letters and Arts at Palazzo Franchetti: the project results were summarized during the morning and, in the afternoon, an in-depth discussion took place between project partners and representatives of lagoon institutions and local stakeholders to identify future ways to follow to achieve an integrated management of the innermost saltmarshes of the Venice Lagoon.

The project, during its four years of duration, has protected from erosion 95 hectares of salt marshes and 258 hectares of mudflats by using about 4000 fascines (installed manually along salt marsh edges) and by nourishing 1500 square meters of locally-collected sediment, thus creating innovative soil bio-engineering protection works. The model of lagoon management proposed by LIFE VIMINE, which creates synergies among local authorities with different jurisdictions (City of Venice, the Interregional Superintendence for Public Works of Veneto, Trentino Alto Adige, Friuli Venezia Giulia, and the “Acque Risorgive” Land Reclamation Consortium) and local communities and stakeholders (fishermen, ship owners, local businesses related to tourism, students, etc.) has proven to be effective and sustainable from an environmental, economic and social point of view. During the conference, it has emerged how it can be cost-effective to invest in the maintenance of the lagoon landscape to contrast environmental erosion and, at the same time, "social" erosion, that is, to counteract the rural exodus of people from the inner areas of the lagoon by creating new jobs opportunities linked to the continuous maintenance of the soil bio-engineering works.



Among the others, speeches were given by representatives of the institutions that took part in the project: ing. Linetti of the Interregional Superintendence for Public Works, the Councillor Lavini of the City of Venice, ing. Bendoricchio of the “Acque Risorgive” Land Reclamation Consortium. The value of the positive work done by the LIFE VIMINE project and the importance of the project for the future of the

Venice Lagoon were recognized by the participating authorities who confirmed their willingness to adopt the approach proposed by the project and to boost regular and spatially-diffuse maintenance activities of the Venice Lagoon salt marshes in the near future. Speeches are available on the LIFE VIMINE YouTube channel at the following link: <https://www.youtube.com/user/ProgettoLifeVimine>

## **LAGOON TRIP OF PROJECT PARTNERS AND LOCAL AUTHORITIES**

The day after the LIFE VIMINE final conference, on the 23rd of June, the project staff organized a field trip to visit the project sites for the representatives of local institutions. Participants were able to see the different soil bio-engineering technical solutions put in place to protect saltmarsh edges from erosion and were able to appreciate the adaptability of the works to the different local hydraulic, geological, and morphological conditions.



The visit was attended by the staff of the LASA research group of the University of Padua (project co-ordination), and by representatives of the Interregional Superintendence for Public Works, the “Acque Risorgive” Land Reclamation Consortium, the Veneto Region, the River Basin District authority “Alpi Orientali” and the Municipality of Venice Murano Burano. The City of Venice participated with a large delegation of councillors. Soil bio-engineering works were illustrated by the field work coordinators and by the fishermen who constructed them, starting a debate with local institutions during which the experience of these four project years was shared.

The very hot day did not stop the curiosity of the participants who had the opportunity to move through the salt marshes that surround the “Palude dei Laghi” mudflat near the island of Torcello. In the afternoon, the delegation visited the project worksite of the Laghi Island recently restored by the Interregional Superintendence for Public Works in the framework of LIFE VIMINE through

activities of vegetation management, waste removal and restoration of buildings and greenhouses.

The participants walked along the nature trails opened, also by a group of volunteers of the project staff, across weed vegetation in the island during the past year: these trails, which allow to appreciate the landscape and the tree species found there, were created to demonstrate how the Laghi Island can become not only a logistic centre for soil bio-engineering works in the future but, also, a place for environmental teaching activities and, more in general, a landmark in the northern lagoon for all activities linked to the sustainable management and fruition of the lagoon.

## **END OF FIELD WORKS**

The salt marsh protection activities of LIFE VIMINE were concluded on June and July 2017. During the past year, field activities mainly focused on the creation of protection works which were based to a larger extent on sediment nourishment, allowing to restore salt marsh surfaces to the fittest height to trigger a spontaneous and fast colonization by autochthonous vegetation. The combined effect of larger salt marsh surface restoration and of its quick colonization makes protection works more durable, flexible and adaptable to the variability of tides and current intensity.



The protection measures were not limited to those initially planned in the project but were extended, through additional funding provided by the Interregional Superintendence for Public Works, to some additional areas bordering the project salt marshes. In these areas, field workers restored small salt marsh surfaces

through sediment nourishment and protected small but strategic salt marsh edges whose erosion would have triggered more intense erosion phenomena, which could have led to the loss of large salt marsh surfaces through a cascade effect: the funding of these works, which exploited all the experience gained during the past project years, proves the willingness of the Interregional Superintendence for Public Works to adopt the approach proposed by LIFE VIMINE also in the future to protect innermost salt marshes.

## **THE FUTURE OF LIFE VIMINE IS BUILT NOW**

On the 1st September 2017, the LIFE VIMINE project will officially end. The work carried out during a complex and challenging four-year course now allows us to deliver valuable tools to the institutions involved in the management of the lagoon, allowing to support and boost, after the end of the project, the continuous and spatially-diffuse maintenance proposed by LIFE VIMINE in the innermost salt marshes of the Venice Lagoon.

A first key tool is the consolidated network of contacts between institutions and other stakeholders that the project has been able to create: LIFE VIMINE gathered public institutions, NGOs, businesses and economic actors of the lagoon, and people with the most diverse backgrounds around the same table, who were all able to work together towards the goal of conserving the innermost salt marshes of the Venice Lagoon (and all the ecosystem services they provide with their existence) by carrying out small, low-impact soil bio-engineering works. The project has made it possible to overcome conflicts due to overlapping jurisdictions and to proactively face the difficulties of working in a context such as the Venice Lagoon, characterized by a large fragmentation and, sometimes, overlapping of management jurisdictions across many different actors.

An equally important tool is the lagoon management model proposed and implemented by LIFE VIMINE. The project delivers to the lagoon institutions:

- A short wood supply chain of wooden material which transforms the brushwood coming from forest management activities in the mainland into a resource for the production of fascines and poles to be used for soil bio-engineering works. This model of supply chain, now fully functioning, can be kept active and potentially extended to the lagoon itself, as already done during the project on the Laghi Island, thus managing forest areas in all the islands of the Lagoon of Venice
- The proof of the effectiveness and feasibility of using environmental-friendly soil bio-engineering techniques to protect the innermost salt marshes of the Venice Lagoon
- The practical experience of a group of local fishermen in the creation of soil bio-engineering works for salt marsh protection. The involved fishermen have proven to be able to significantly contribute to the good outcome of the protection activities because of their knowledge of the lagoon, e.g. they suggested where and when to act and indicated how the techniques proposed by the project could be improved. The engagement of fishermen in

maintenance activities has allowed to support the income of these workers, whose kind of job is disappearing in the northern lagoon of Venice with large social implications for the island of Burano, and will create new jobs in the Venice Lagoon in the future

- A new complex multifunctional plan built around the Laghi Island, including the foundation of a lagoon center for soil bio-engineering, the landscape and environmental valorisation of the Island and the planning of further activities in the area related to the management and valorisation of the northern Lagoon of Venice
- An economical assessment of the construction and maintenance costs of the soil bioengineering works and of the societal benefits provided by the conservation of the ecosystem services guaranteed by salt marshes.

To further develop these ideas, the staff of the LASA research group of the University of Padua has already begun, together with the different lagoon institutions, the drafting of a Memorandum of Understanding with the aim of promoting the LIFE VIMINE approach and extending it beyond the end of the project.