**The future of Venice**

**Lesson 3 plan: Lagoon ecosystem and sustainable use**

**Lesson aim:** To learn about the ecosystem of the Lagoon of Venice and how the lagoon and its islands can be managed more sustainably and utilised for the benefit of local people.

**Lesson objectives:**

* To know about the ecosystem characteristics of the Lagoon of Venice (LoVe)
* To know about the various threats to the ecosystem
* To know about what steps are being taken (or could be taken) to better manage the lagoon ecosystem and restore salt marsh
* To learn examples of how local people are using the lagoon and its islands

**Learning activities and tasks:**

**Starter (20 minutes)**

Students start by visiting the following websites on salt marshes. Students should take brief notes on the characteristics of the salt marsh ecosystem and what ecosystem goods and services salt marshes provide.

National Ocean Service <http://oceanservice.noaa.gov/facts/saltmarsh.html> Ecosystem Goods and Services <http://ec.europa.eu/environment/nature/info/pubs/docs/ecosystem.pdf>

Once completed students study the **Flora and Fauna Factsheet** about the Lagoon of Venice. Individuals or pairs could do a web search on a selection of plants listed in the factsheet to feedback to the class on the physical adaptations of their chosen species and whether they have a human use.

**Main activities**

**Activity 1 (20 to 30 minutes)**

Students look through both the **PowerPoint** slides and the **Ecosystem Factsheet** to learn about aspects of the lagoon ecosystem, threats facing it, and how it can be managed and used sustainably. They make four summary lists (or a table with four columns): one for ecosystem characteristics, one for threats facing the ecosystem, one for ways of mitigating the threats, and one for ways of using the lagoon sustainably (to include the ‘valle da pesce’ system).

**Activity 2 (20 to 30 minutes)**

Students watch the videos on the Venissa Project (**LoVe interview Matteo Bisol**, 6 minutes) and on farming in the Cavallino-Treporti area (**LoVe interview Liliana Ballarin**, 9 minutes) and make notes on the following themes:

* The nature and aims of the Venissa Project and how it is beneficial for people and the local environment
* How agriculture in the Cavallino area changed after the 1966 flood and how and why agricultural methods have changed more recently
* The challenges facing agriculture in the region and some possible ways of sustaining it

**Plenary (15 to 20 minutes)**

In writing (or as part of a class discussion) students should attempt to answer the following questions:

* For what reasons should efforts be made to protect salt marsh in the Lagoon of Venice?
* How is climate change expected to affect the ecosystem?
* How does a ‘valle da pesce’ work, and why is it a good example of an environmentally friendly and sustainable way of using the lagoon ecosystem?
* To what extent is tourism in its current form compatible with maintaining the health of the lagoon ecosystem?
* In what ways could tourism be made more environmentally friendly?

To finish students could also read the short article on ‘Sustainable Venice’ tourism found here <http://www.veneziaunica.it/en/content/sustainable-venice> and think about sustainability in terms of social, cultural, and environmental aspects.