

DECISION PROCESS FINAL REPORT

PART A - Po River Delta - Veneto Region

Summary of the outcomes of the participatory phase

Final Version of 31/08/2021

Deliverable Number D.5.6.1.

Version 1.0

Project Acronym	CHANGE WE CARE
Project ID Number	10043385
Project Title	Climate cHallenges on coAstal and traNsitional chanGing arEas: WEaving a Cross-Adriatic REsponse
Priority Axis	2
Specific objective	2.1
Work Package Number	5
Work Package Title	Pilot Sites: adaptation strategies and measures for increasing resilience to climate change
Activity Number	5.6
Activity Title	Adaptation plan / design of interventions / pilot interventions on Po River Delta
Partner in Charge	Managing body for parks and biodiversity: Po Delta
Partners involved	Veneto Region
Status	Final
Distribution	Public

Summary

1. Foreword.....	4
2. Aims and content of the document.....	4
3. CHANGE WE CARE project and the objectives of WP5	4
4. Description of the participatory process designed for the Delta Po – Veneto Region - Pilot Area	5
4.1 Area, themes, sectors of intervention	5
4.2 General aim of the operation	7
4.3 Synthesis of the participatory process	8
4.4 Context of the participatory process	8
4.5 Objectives of the participatory process.....	9
4.6 Expected results of the participatory process.....	9
4.7 Timing foreseen for the participatory process.....	10
4.8 Phases of the process	10
4.9 Description of the phases (and timing)	10
5. Elements and context of the participatory process for the Delta Po – Veneto Region - Pilot Area.....	12
5.1 Stakeholders involved	12
5.2 Participatory techniques and tools.....	13
5.3 Accessibility to the documentation	15
6. Synthesis of the preliminary document to feed the process for the Delta Po – Veneto Region -Pilot Area	16
6.1 What are the conditions now?	16
6.2 Which future we see for this area?	16
6.3 Which objectives and strategies?	17
6.4 What we suggest doing in this frame?	18
7. Synthesis of the participatory process and outcomes.....	19
7.1 The participatory process.....	19

7.2	The first results of the participatory process	21
8.	<i>Inclusion of the process outcomes in the Adaptation Plan for the Delta Po – Veneto Region - Pilot Area</i>	31
9.	<i>Closing remarks on the experience, future implementation and transferability.....</i>	44

1. Foreword

This document has been produced in the framework of the INTERREG Italy – Croatia CHANGE WE CARE Project. CHANGE WE CARE fosters concerted and coordinated climate adaptation actions at transboundary level, tested in specific and representative pilot sites, exploring climate risks faced by coastal and transitional areas contributing to a better understanding of the impact of climate variability and change on water regimes, salt intrusion, tourism, biodiversity and agro-ecosystems affecting the cooperation area. The main goal of the Project is to deliver integrated, ecosystem-based and shared planning options for different problems related to climate change (CC), together with adaptation measures for vulnerable areas, to decision makers and coastal communities. Additional information and updates on the CHANGE WE CARE can be found at <https://www.italy-croatia.eu/web/changewecare>.

2. Aims and content of the document

This document is the final report of the decision process undertaken involving stakeholders in the Delta Po – Veneto Region - Pilot Area and corresponds to the Deliverable 5.6.1 indicated in the Application Form.

Due to the interregional competences of Po River Delta Area, two different areas are individuated to focus on: the Po delta area with a focus on the Sacca del Canarin in the Veneto regional territory (**part A**) and the Sacca di Goro in Emilia-Romagna region (**part B**).

The deliverable 5.6.1 represents the synthesis of participatory process outcomes based on the following WP5 roadmap:

1. **Design of the Participatory Process, months 09/2019 – 05/2020***: design /set up a dedicated participatory process in relation to the issues to be tackled, the nature and characteristics of the stakeholders, main local actors, citizens and associations;
2. **Implementation of the Participatory Process, months 09/2020 – 02/2021***: implementation of the designed process along 6 months, including 3 Participatory Workshops in presence or via online support as Webinar, or other tools as indicated in the following page, and all other means designed/foreseen (as local coordination meetings, public meetings, online virtual squares, blogs, online consultations tools in general, etc.) following the developments of WP3 and WP4 and their specific outcomes for the Pilot Sites;

3. CHANGE WE CARE project and the objectives of WP5

CHANGE WE CARE fosters concerted and coordinated climate adaptation actions both at Pilot Sites and at transboundary level. The project explores climate risks faced by coastal and transition areas contributing to a better understanding of the impact of climate variability and change on water regimes, salt intrusion, tourism, bio-diversity and agro-ecosystems affecting the cooperation area.

WP5 main objective is the preparation of climate change Adaptation Plans in Pilot Site, containing the assessment of present state and of foreseen scenarios, the indication of measures and intervention priorities, monitoring strategies and jurisdictional references.

The Planning options presented are the result of participated processes involving local authorities and stakeholders. The Adaptation Plans include actions and interventions, where appropriate, indicating the timeline and the financial strategy for the implementation of the envisaged activities and

Monitoring Plans (taking stock also of WP4 indications) for observing and ensuring the durability of the project outcomes and of the implementation of the Plan.

4. Description of the participatory process designed for the Delta Po – Veneto Region - Pilot Area

Title: Participatory process for the environmental management of the Po Delta (area belonging to the Veneto Region) - with focus on the Sacca del Canarin.

4.1 Area, themes, sectors of intervention

The Po Delta represents the final sub-basin subtending the entire hydrographic basin of the Po River, and it develops as a flat region with an area of 472.55 km² (1.6 % of the total hydrographic basin), (Management plan of the hydrographic district del Fiume Po, State of water resources, 2016).

In this area, the Po River is divided into several branches: Po di Levante, Po di Maistra, Po di Pila (with the mouths of Scirocco and Tramontana), Po di Tolle, Po di Gnocca, and Po di Goro, which is part of The Emilia Romagna Region (Figure 1).

This is an area of recent formation, in continuous evolution, due to the contribution of sediments by the Po River. The current morphology is the result of a long history of reclamation and hydraulic interventions. In fact, most of the territory is below sea level and is maintained emerged from the continuous work of various pumping plants. The embankments along the branches of the Po, together with the lagoon banks, constitute the important defence line of this fragile territory, both against the floods of the Po and against of the effect of rising sea.

From an environmental point of view, the Po Delta, with its interconnection of aquatic and land habitats, of fresh and salt water, represents a particularly important environmental and ecological system.

The territory is mainly agricultural and consequently the population density is quite low, with urban centres consisting of small villages, hamlets and isolated houses.

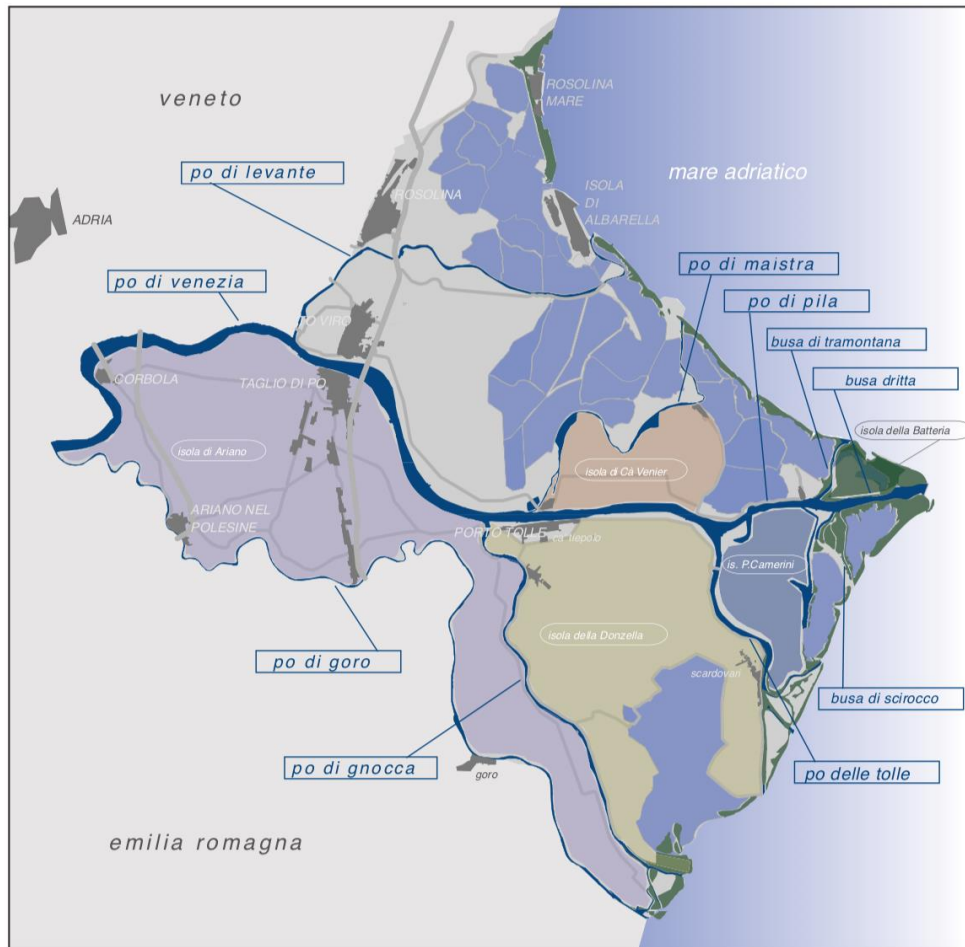


Figure 1. Po Delta region with its branches and lagoons (Atlante Delta del Parco)

The Delta is made up of all the river branches of the Po and the territory between them. According to this definition, it falls entirely within the province of Rovigo (Veneto Region). However, in a broader sense, the Delta includes the largest area, historically enclosed between the ancient delta branches of the Po River, in the province of Ferrara (Emilia Romagna Region), between the Sacca di Goro and the Comacchio valleys.

The participatory process implemented by the Veneto Region concerns the entire Veneto Delta area, with particular focus on the Sacca del Canarin.

The Sacca del Canarin is a small lagoon between the branches of the Po di Pila to the north, the Busa dello Scirocco to the northeast and the Busa del Bastimento (Po di Tolle) to the south (figure 1 e figure 2). It was recently formed, as it is located in the apical part of the Delta, in the portion of the territory that has developed in recent centuries. Therefore, compared to the Sacca di Goro, which is an ancient gulf, the Sacca del Canarin is relatively young.

It is a marshy area with a rather high level of salinity, characterized by the absence of islands, with few submerged riverbeds.

The site has been modified over time by anthropogenic interventions and natural processes: modifications of the mouth to the sea, construction of barriers, storm surges from the sea and floods from the land.

The main activities are shellfish farming and fishing, although hunting and tourism activities have recently begun to develop in the area, together with sport fishing, bathing along the coast and inland navigation along the branches of the Po delta.



Figure 2. Sacca del Canarin (Google earth image).

It is a UNESCO World Heritage Site.

It is an "ecosystem" to be protected and preserved, in compliance with the "Habitats" directive (92/43/EC) and the "Birds" directive (79/409/EC).

The Po delta is part of the Natura 2000 Network - SCI and SPA (IT3270023 and IT 327 0017). There are over 20 different types of habitats (e.g. 1150 - coastal lagoons, 2130 - coastal dunes with herbaceous vegetation, etc.), over 40 species of birds (included in the Natura 2000 list and not), as well as amphibians, reptiles, fish and plants included in the lists of the protected species.

4.2 General aim of the operation

The purpose of the participatory process is to improve the perception of climate change and bring out the real environmental problems and socio-economic needs. The increase in knowledge of the territory, through the collaboration of the stakeholders, allows the actions and strategies to be defined correctly and specifically. The involvement of the various stakeholders helps to define the state and environmental conditions of the territory.

The participatory process aims to:

- involve all economic operators and public bodies working in the area;
- detect current problems related to climate effects;
- inform about the future effects of climate change on the environment;
- identify the vocations of the site;
- identify the needs of stakeholders;
- collect ideas on possible developments suitable for future climate scenarios, in particular - improve/maintain the productive conditions of the aquaculture sector;

- involve operators in the choice of projects aimed at preserving the natural environment and/or the anthropic activities of the site (e.g. the enhancement of habitats and protected species, the protection of mud flats and salt marshes, etc.).

4.3 Synthesis of the participatory process

Due to the covid-19 pandemic, all planned activities were carried out using web and online tools. The participatory process started with the selection of the stakeholders (summary in the STAKEHOLDER MAPPING - Activity 5.1 - 06/30/2019 - Version n. 1a).

Stakeholder engagement took place in two main ways:

1. by sending information material (3 newsletters via email) relating to the contents and progress of the CWC project;
2. through the organization of three workshops: the first mainly informative, the other two aimed at discussion with and among the participants.

A third phase, at the specific request of local groups, consists in the development of an educational campaign for schools, on the themes of the CWC project, aimed at both students and teachers.

As part of the participatory process, together with the organization of the workshops, other stakeholder involvement activities were carried out:

- questionnaire on the perception of climate change;
- distribution of presentations and recordings of meetings;
- publication of the material relating to the events on the regional institutional website and social network of the project;
- publication of articles on other relevant sites and local newspapers.

Stakeholders were contacted both by e-mail and by telephone before each workshop.

4.4 Context of the participatory process

The pilot site is part of a social context typical of rural areas, the prevailing activities are those related to agriculture and fishing.

The territory is not very urbanized and industrialized. It has been/is in any case affected by anthropic interventions, including significant ones: extraction of gas (in the past), presence of a thermo-electric power station (now disused), it is the terminal part of the most important water basin in Italy, which involves the arrival of water inflows with consequent polluting load deriving from upstream.

The morphology of the area is, mainly, determined by artificial structures (embankments, fishing valleys, barriers) which, together with substantial reclamation works, preserve the environment from the most destructive natural dynamics and guarantee human activity.

Furthermore, a large part of the area is subject to environmental constraints caused by a high naturalistic value.

The regulatory framework in the area is rather complex:

- The hierarchical levels are expressed integrally, from the municipal level to the European level;
- There are regulated environmental areas, being a vast and diversified territory, which includes land, rivers, lagoons and the sea;
- There are many issues involved and consequently the constraints, due to the variety of resources, sometimes of national and supranational interest: gas extraction, power plants and

power lines (now disused), small ports, wetlands of environmental interest, presence of large farms (fishing, shellfish farming), etc.

In this context, the criticalities and the proposals that emerged from the participatory process mainly concern:

- Conflict between European fisheries policies and local activities.
- Conflict between tourist activities and environmental protection requirements.
- Request for greater involvement of residents in the choices relating to the development of the area.

The common line that emerged during the discussion is to identify an adaptation strategy that follows natural tendencies. This is essential for the correct use of resources and for responsible and sustainable development. Above all, the need for more in-depth studies on coastal and marine natural dynamics emerged and a request for involvement and active participation.

4.5 Objectives of the participatory process

The main objectives of the participatory process are:

1. To increase the number of stakeholders (citizens, groups, local institutions, public institutions) who participate in defining the future of the territory and its active management - QUANTITATIVE.
2. To encourage stakeholder participation in the definition of adaptation strategies - GENERAL.
3. To involve local operators in maintaining the safety or sustainability conditions of economic activities or good environmental status - GENERAL.
4. Analyzing and overcoming conflicts - QUALITATIVE.
5. To stimulate the development of contributions and ideas by stakeholders on the relevant issues and problems of the territory - QUALITATIVE.

4.6 Expected results of the participatory process

The following results were expected, as a consequence of the participatory process:

- Increase of knowledge, among stakeholders, of the climatic effects and environmental scenarios in the Po Delta for the next decades. QUALITATIVE
- Achieving awareness of the likely problems to be faced in the future. GENERAL
- Knowledge of the European and national tools put in place to start planning interventions for adaptation to climate change. GENERAL
- The creation of a correlated series of relationships between the different actors. QUANTITATIVE
- The collection of contributions, ideas, knowledge of the territory provided by local operators, relevant for the implementation of the subsequent planning phase. QUALITATIVE

In reality, the active contributions expressed by the participants, in particular by public administrations, environmental associations and research bodies, are less numerous than expected, while those expressed by the productive realities were more relevant and constructive than might have been expected.

4.7 Timing foreseen for the participatory process

Due to the COVID19 pandemic, the time for the participatory process has lengthened. The participatory process started in June 2019 (Stakeholder mapping), the third workshop was held on June 2021.

4.8 Phases of the process

The participatory path of the INTERREG Change We Care project in the pilot site of the Po Delta (Veneto Region with focus on the Sacca del Canarin) was launched after a widespread preliminary information campaign, and then developed in the area, involving those who live and work in this area.

The initial phase of "Stakeholder Mapping", already described in a specific report (see STAKEHOLDER MAPPING - Activity 5.1 - 30/06/2019 - Version no. 1a), was carried out according to the provisions of the partner responsible for the WP5 activity, Emilia Romagna Region.

In this phase, the Veneto Region has identified about 80 referents, concerning different groups operating in the territory at different levels (administration, environmental education, research, planning, etc.).

The planning phase of the participatory process was developed by the project staff of the Veneto Region.

Initially, stakeholders were contacted by sending three newsletters describing the contents of the project and updating on the progress of the work, in order to have a first contact.

Also direct contact in person or by phone or email was established with some people and some local groups.

Subsequently, three workshops were held, via web conference.

During the implementation phase of the first workshop, over 100 stakeholders, belonging to different groups representing the main activities in the area, were identified and invited: public bodies, universities and research bodies, schools, professional and environmental associations, trade associations, workers in the fishing sector/mussel farming.

In the second and third workshops, the stakeholders were divided into two different groups in order to facilitate the discussion: general public and public bodies.

Following what emerged from the meetings, it is planned to send further newsletters to inform the stakeholder on the progress of the Project and on the initiatives of the Plan.

Furthermore, the development of a project with schools and for schools is foreseen in order to increase the awareness of students and teachers on the project themes.

4.9 Description of the phases (and timing)

The Veneto Region organized the stakeholder information and engagement process between September 2019 and June 2021.

The work phases have been divided as follows (timing):

- Mapping of stakeholders - June-July 2019.

- Planning phase of the participatory process – July 2019 – September 2019.
- Implementation phase September 2019 - June 2021 (First newsletter on September 2019, third workshops 18 June).
- Analysis and finalization phase June-September 2021.

5. Elements and context of the participatory process for the Delta Po – Veneto Region - Pilot Area

5.1 Stakeholders involved

The most represented groups of stakeholders involved in the participatory process are those of economic operators in the fishing sector and local administrators.

As regards public administrations, both the mayors and the technical offices of the municipalities of the Delta area and those of the Province of Rovigo were contacted.

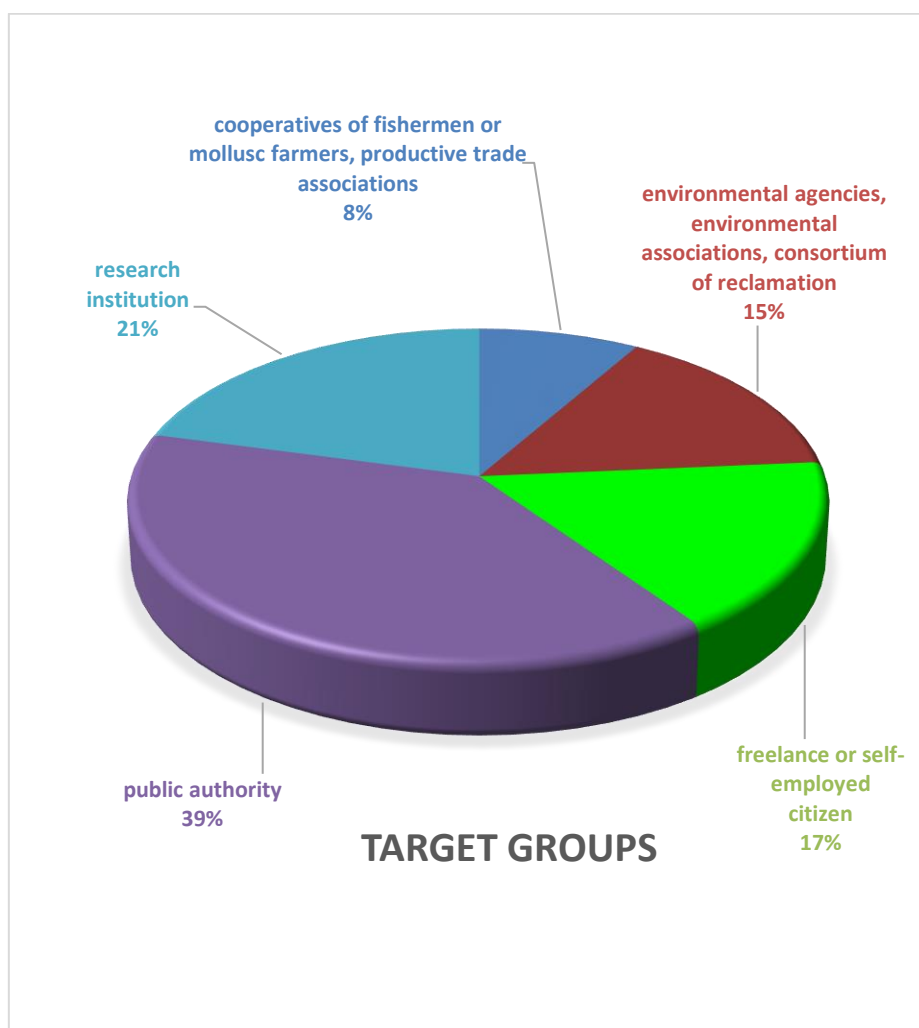
All the school offices in the area, the territorial offices of the main environmental associations, some professional associations, university researchers, as well as all the sector bodies that in various capacities participate in the management of the territory were also contacted.

Freelancers, regional officials from various sectors and other staff not directly contacted asked to participate in the workshops following the widespread publicity of the events through press releases (table 1).

Policy-makers	Veneto Region
	Province of Rovigo
	Municipalities
Public administrations	Po District Basin Authority
	Reclamation Consortium of Delta Po
	Ministry of University and Research
	Ministry for Cultural Heritage, and for Tourism
	Superior Institute of Health
	Interregional Agency of Po River
	Regional Park Authority
Educational	University (Ferrara and Padua)
	School Districts
	Museums
Researchers	National Research Council
	Italian Institute for Environmental Protection and Research
	Regional Agency of Environmental Protection
Associations	Professional association
	Italian bird protection league
	Legambiente
	World Wide Fund
	Italian Association of Atmospheric Sciences and Meteorology
Economic trade associations	Coldiretti
	Confagricoltura
	Fishing and shellfishing consortia
	FLAG – GAC (Fisheries local action group – Chioggia and Po Delta), Coastal Action Group.
Fishing /shellfish farming Enterprise	Shellfishing farmers

	Fishermen
Other	Freelancers
	Companies
	Consulting firms
	Integrated water service managers
	Journalists

Table 1. Stakeholders: categories, bodies and individuals.



5.2 Participatory techniques and tools

Six ways to contact people have been implemented: contact via institutional mail and personal mail, advertising on a specialized website, web meeting, telephone contact, press releases.

The activities were implemented in the following ways:

- updates to the existing institutional website;
- 3 newsletters;
- 3 questionnaires (1 reconnaissance questionnaire and 2 satisfaction questionnaires);
- 2 press releases;

- 3 workshops as online meetings with google tools:
 - a) "Climate change in coastal and transition areas: scenarios and impacts on the Po Delta" (23 April).
 - b) "Climate change in the Po Delta: critical issues, proposals, priorities. Discussion with stakeholders "(public) (June 17).
 - c) "Climate change in the Po Delta: critical issues, proposals, priorities. Meeting with Public Bodies "(June 18).

The events were advertised on the project website, on the Region website, on the website of the Professional Order of Geologists and through the local press.

The first web meeting had a purely informative connotation, presenting, in addition to the general contents of the project and a general description of the pilot area, the results of some forecasting models applied to the specific territory.

In particular, the related problems were examined:

- a) urban planning at the regional level (Regional Territorial Coordination Plan);
- b) long-term local hydrodynamic scenarios, related to the impacts on the characteristics of the lagoons: temperature, salinity, hydro-phytic component;
- c) coastal geomorphological vulnerability.

A survey was added to the invitation, carried out through an anonymous online questionnaire, aimed at collecting the opinions of the participants about the perception and knowledge on the issues of climate change and associated risk. The questionnaire, returned by 65 stakeholders, made it possible to identify some topics of interest to be developed during the second and third meetings.

72 people attended the web meeting, covering the entire competence panel described above. The responses to the feedback questionnaire on the event testified to the wide satisfaction of the participants, the desire for greater and synergistic involvement between the parties, the need for further information on issues relating to climate change.

These results were taken into account in the second and third workshops, which had the aim of outlining, with the contribution of the stakeholders, the current problems related to climate change and the tools to be put in place to deal with adverse events.

The second and third meetings included a series of technical presentations, after which much time was devoted to open discussion with the participants.

The presentations concerned:

- a) The forecast of future climatic conditions in the Po Delta and the methodologies for planning adaptation interventions (Strategy and National Plan for Adaptation to Climate Change),
- b) Local problems and the tools to address them.

In continuity with the first workshop, specific stakeholders, belonging to different groups representing the main activities of the territory, were identified and invited to the 2nd and 3rd event.

The second meeting involved professional associations and freelancers, trade associations, employees of the fishing/shellfish sector, environmental associations, to which a discussion session was dedicated. In the third meeting, on the other hand, public bodies and institutions were invited with which a discussion table on technical, regulatory and managerial issues was shared.

25 people participated in the first meeting and 25 in the second meeting.

Finally, a satisfaction questionnaire was sent to the participants of the three events.

5.3 Accessibility to the documentation

The three events described above were recorded and the recording made available to the project partners and possibly to the public if requested, as well as the presentations of the speakers.

Finally, a satisfaction questionnaire was sent to the participants of the three events.

The documentation relating to the first workshop (april 23) can be found with the following link:

<https://owncloud.ve.ismar.cnr.it/owncloud/index.php/apps/files/?dir=/Shared/Pilot%20Sites/Po%20Delta/VENETO%20-%20Workshop%20April%2023%2C%202021&fileid=1486893>

The documentation relating to the second and third workshops (17-18 June) can be found with the following link:

<https://owncloud.ve.ismar.cnr.it/owncloud/index.php/apps/files/?dir=/Shared/Pilot%20Sites/Po%20Delta/VENETO%20-%20Workshop%2017-18%20June%202021&fileid=1690332>

The documentation can also be downloaded from the regional website (dedicated pages), using the following links:

<https://www.regione.veneto.it/web/ambiente-e-territorio/change-we-care>

The documentation includes:

- meeting agendas
- technical presentations (slides)
- results of the questionnaires

6. *Synthesis of the preliminary document to feed the process for the Delta Po – Veneto Region -Pilot Area*

6.1 What are the conditions now?

The Delta territory is a fragile environment, largely below sea level and inhomogeneous, with a high naturalistic value, fragmented by a built landscape and sometimes in a state of abandonment due to catastrophic events (floods, subsidence, saline intrusions) which have reduced the urbanization and housing.

The most interesting development areas are located in the coastal strip, which, with its lagoons and beaches, offers sites of anthropic and environmental interest. Fishing, fish farming and tourism develop here. The internal areas are purely agricultural with a prevalence of arable land.

The territory remains emerged thanks to the hydraulic defenses and pumping systems.

The Sacca del Canarin extends over an area of about 6.5 square kilometers between the mouth of the Po "Busa di Scirocco", to the north, and "Busa del Bastimento", to the south. The morphology of the lagoon seabed is quite uniform, with an average depth of about 80 cm.

Hydrodynamic exchanges with the sea take place through a single mouth, the Bocca Nord, which opens in the northern part of the coastal strip, not far from the Busa di Scirocco. This conformation influences the quality of the water, in particular as regards the salinity.

In recent years, the Sacca del Canarin has undergone anthropic interventions, also to improve the hydraulic safety of the agricultural and settlement area behind it.

The internal – natural- modifications concerned the closure of the second natural mouth of the lagoon, which was originally positioned on the south side of the same, near the mouth of the Busa del Bastimento of Po di Tolle.

These interventions, together with the natural action, have produced a reduction in water supplies within the lagoon and an anomalous hydrobiological situation for a lagoon, which normally has two communication gates with the sea.

This continuous accumulation of sediment over the years is causing a progressive burial of the Sacca del Canarin and the consequent decrease in depth reduces the circulation of water. A hydrodynamic reduction implies, from a biological point of view, a sure drop in the number and density of the life forms present and consequently of the animals that find suitable habitat there.¹

6.2 Which future we see for this area?

During the second and third workshops, the interventions of the stakeholders identified the key aspects of the project and highlighted several concerns related to the pilot site, in particular:

- drilling in the sea, which could generate pollution effects and further problems (subsidence),
- the effects of the Mose of Venice on the hydrodynamics of the Po Delta;
- the tendency of lagoons to marinization;
- the constraints on fishing and aquaculture dictated by Europe and by the dynamics of the global market;

¹ Source: "Sacca del Canarin vivification project" year 2007 - Doc. N. PO0 CA DA SVL 001. Generation and Energy Management Division Technical Area - Development and Realization of Engineering - Development - ENEL Plants.

- damage to fish farms caused by extreme events;
- the changes taking place in fish populations (diffusion of blue fish eg Pomatomus saltatrix-pesce serra and Thunnus thynnus -bluefin tuna);
- the aspects related to the reduction of the fishing effort, which generated economic losses, but did not bring the expected effects in relation to the restocking and maintenance of fish communities;
- the lack of in-depth knowledge of the marine environment and awareness of climate-related issues;
- the need for continuous engineering interventions to guarantee the local economy, based on fishing, aquaculture and agriculture;
- plastic pollution;
- environmental damage caused by summer tourism.

These are critical situations, already present in the territory, which go beyond climate change, but which could be worsened by it.

The following emerged from the analysis of the discussion with the stakeholders.

There is still no definitive overall vision for the future of this area. The need has emerged to elaborate an inter-sectoral "Plan", establishing a priori, at a strategic level, a long-term development objective, first of all, defining whether to maintain the lagoons in their current conformation, forecasting their costs, or letting them go towards their natural evolution.

According to our stakeholders, the picture of the expected climate change and its effects on the territory is not so clear and such as to indicate a long-term planning. The current knowledge on the evolution of the site due to the foreseen CCs is not sufficient to support decisions and, above all, investments for the next decades. Furthermore, the impacts related to long-term geomorphological evolution should be accompanied by progressive structural interventions, such as raising embankments, reinforcement of barriers, nourishment, which could involve significant mitigations and yet not easily quantifiable and verifiable.

Overall, despite the high sensitivity to the issue, there was a lack of individual awareness of the damage caused by climate change foreseen from now in the future. There appears a mental resistance to thinking beyond the current time and contingent problems and a scarce propensity to imagine new possible scenarios in the 30-60 years to come.

6.3 Which objectives and strategies?

As previously mentioned, in our participatory process we have not presented our proposals or visions or programmatic lines already initiated by the Region. We have posed the general themes to stimulate a discussion without preconceived indications.

In the summary tables (**see chapter 7**), the results of the Participatory Process are presented, through summary sheets of the criticalities highlighted, and the proposals put forward by the various groups of stakeholders.

More than a future vision relating to climate change, the need to solve problems already present has emerged, since the signs of environmental change, combined with the anthropic impacts inherited from the past, have already been felt for some time in this changing and fragile environment.

6.4 What we suggest doing in this frame?

In **Chapter 7**, as part of the participatory process, we tried to propose some initial indications and measures.

Further proposals are described in **Chapter 8**.

7. Synthesis of the participatory process and outcomes

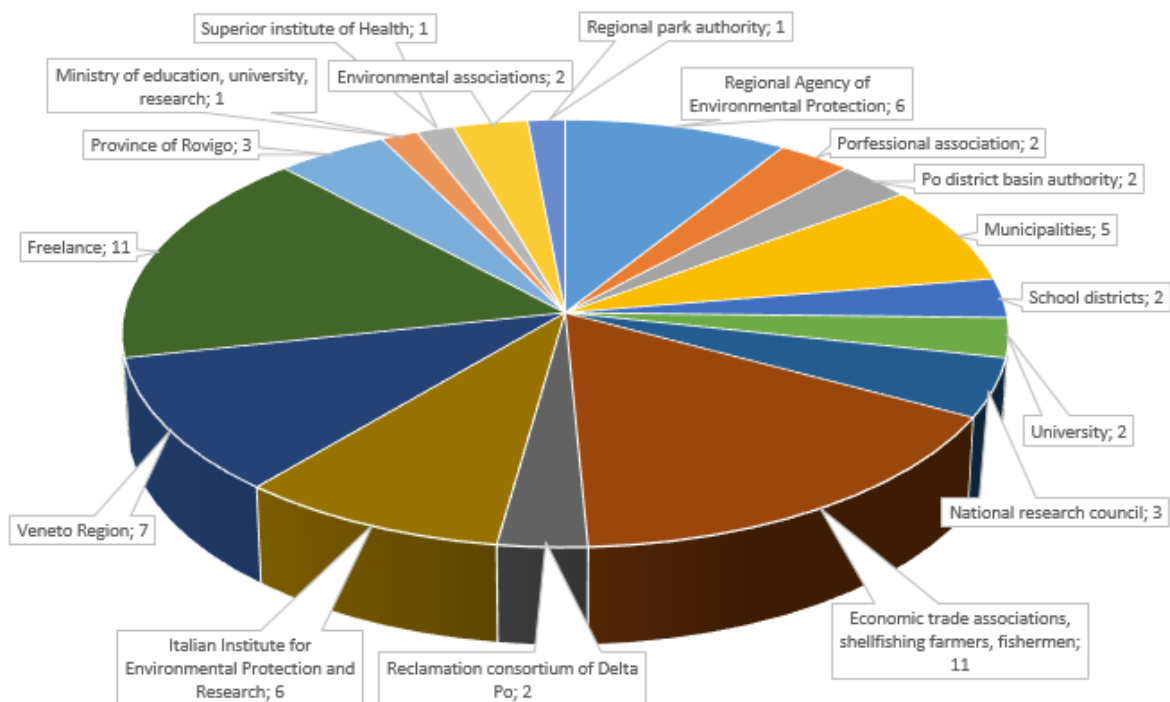
7.1 The participatory process

Concerning the description of the participatory process, see the chapter n. 4 and n. 5.

Below is a brief summary.

What	How	When (Date)	Who (N. of Participants)
1° newsletter	email	09/09/2019	80
2° newsletter	email	23/04/2020	80
3° newsletter	email	10/12/2020	80
1° workshop: "Climate change in coastal and transition areas: scenarios and impacts on the Po delta".	Online event on Google Meet platform.	23/04/2021	72 participants.
2° workshop: "Climate change in the Po delta: critical issues, proposals, priorities. Meeting with stakeholders".	Online event on Google Meet platform.	17/06/2021	25 participants.
3° workshop: "Climate change in the Po delta: critical issues, proposals, priorities. Meeting with Public Bodies".	Online event on Google Meet platform.	18/06/2021	25 participants.

Participants in the first workshop in the Veneto Region



The results of the main **criticalities** highlighted by our stakeholders during the participatory process, and the **proposals** put forward by the various groups of stakeholders are reported in the following summary sheets.

7.2 The first results of the participatory process

Summary sheet: n. TG - 1

TARGET GROUPS and SECTORS	STAKEHOLDERS
<p>Local, Regional and National public authorities</p> <p>-----</p> <p>Integrated management of coastal areas.</p>	<p>Coastal municipalities (Rosolina, Taglio di Po, Ariano del Polesine, Porto Tolle, Porto Viro, Adria, Corbola, Loreo, Papozze).</p> <p>Po Regional Delta Park - Veneto region.</p> <p>Province of Rovigo.</p> <p>Delta del Po Reclamation Consortium.</p> <p>Interregional Agency for the Po River (AIPO).</p> <p>Po Basin Authority.</p>
HIGHLIGHTED CRITICALITIES	PROPOSALS
<p>Overlapping of skills in the various sectors of interest.</p> <p>Lack of coordination between the various institutional subjects.</p> <p>Lack of a single legal framework of reference (eg difficulty in connecting between Integrated Coastal Area Management and Maritime Spatial Planning).</p> <p>Lack of financial resources. Difficulty in involving stakeholders during the process.</p>	<p>Create the network between public bodies (local, provincial and regional) with discussion tables to identify and share common objectives.</p> <p>Increase the awareness of coastal communities about climate change and the possibilities for adaptation.</p>

Summary sheet: n. TG - 2

TARGET GROUPS and SECTORS	STAKEHOLDERS
<p>General Public.</p> <p>-----</p> <p>Fishing, aquaculture, shellfish farming.</p>	<p>Cooperatives of fishermen, and shellfish farmers.</p>
HIGHLIGHTED CRITICALITIES	PROPOSALS
<p>Over-exploitation of fisheries resources.</p> <p>As for the reduction of fishing effort (reduction of the authorized vessels in the context of management of particular kind of fishing), in accordance with the European directive, the Italian fleet has already been halved, but the catch has not increased, according to expectations. The measure introduced by the European legislation is considered useless or, in any cases, scarcely effective by sector operators.</p> <p>Changes in the structure of fish communities due to environmental changes linked to climate change (temperatures, salinity, pH, etc.), with effects on the type of fish.</p> <p>Variations in fish production: reduction from 720,000 tons to 250,000 tons in 20 years.</p> <p>Modification of the distribution area of some fish populations (for example: There was no Bluefin tuna in our area in the 70s, now there is - since the 80s and 90s.).</p> <p>Changes in the residence time of some fish populations (for example: The cuttlefish usually stayed in our areas for 2 or 3 months, now they stop for 10 days).</p> <p>Conflicts between species due to the increase of alien species (<i>Pomatomus saltatrix</i>).</p> <p>Increased frequency and incidence of extreme events that strongly impact on mussel farms.</p>	<p>It is a priority to identify and understand the real causes for variations in fishing production.</p> <p>It is essential to recognize the causes of the shrinking fish communities. It is important to identify which part is attributable to the CC.</p> <p>Change the production system based on changes in the marine environment.</p> <p>Reduction of conflicts (or their severity) between sea fishing and other persistent activities in the same areas (aquaculture, commercial and tourist navigation, installation of solid structures at sea for various purposes) thanks to better planning of marine spaces (Directive 2014/89 / EU).</p> <p>Increase information and training on changes due to CC.</p>

Summary sheet: n. TG – 3

TARGET GROUPS and SECTORS	STAKEHOLDERS
<p>Trade associations. Public authorities. Environmental Agencies. Environmental Associations. Reclamation Consortia.</p> <p>-----</p> <p>Prevention and mitigation of salinization processes in coastal areas</p>	<p>Cooperatives of fishermen and shellfish farmers. Coastal municipalities (Rosolina, Taglio di Po, Ariano del Polesine, Porto Tolle, Porto Viro, Adria, Corbola, Loreo, Papozze). Po Delta Regional Park - Veneto region. Province of Rovigo. Delta del Po Reclamation Consortium. Interregional Agency for the Po River (AIPO). Po Basin Authority.</p>
HIGHLIGHTED CRITICALITIES	PROPOSALS
<p>Marinization of the lagoons. Saltwater intrusion.</p>	<p>Sector plan for the management of lagoon spaces. Implement the coordination of activities and works between producers and with producers.</p>

Summary sheet: n. TG – 4

TARGET GROUPS and SECTORS	STAKEHOLDERS
<p>General Public. Research Institutes and Universities. Trade associations. Public authorities. Environmental Agencies. Environmental Associations. Reclamation Consortia. ----- Reduce the spread of plastics. Prevent and generally mitigate pollution and the spread of pollutants in the sea.</p>	<p>Cooperatives of fishermen and shellfish farmers. Coastal municipalities (Rosolina, Taglio di Po, Ariano del Polesine, Porto Tolle, Porto Viro, Adria, Corbola, Loreo, Papozze). Po Delta Park (part of the Veneto region). Province of Rovigo. Delta del Po Reclamation Consortium. Interregional Agency for the Po River (AIPO). Po Basin Authority.AIPO. Research Institutes and Universities.</p>
HIGHLIGHTED CRITICALITIES	PROPOSALS
<p>Presence of plastics and micro-plastics in the sea and in the fish.</p>	<p>Implement environmental education to encourage conscious choices and behaviors. Promote the short chain to strengthen the local economy and promote sustainable production, in coordination with other initiatives such as "Campagna Amica". Promote projects for the reuse and / or transformation of collected plastics (pyrolysis: project to make fuels with plastic). Use of ecological materials, for example instead of polystyrene boxes that break easily, encourage the restoration of wooden boxes. Reactivate the scientific laboratory of Goletta Verde</p>

Summary sheet: n. TG - 5

TARGET GROUPS and SECTORS	STAKEHOLDERS
<p>Local, Regional and national public authorities. Environmental Agencies. Environmental Associations. Reclamation Consortia.</p> <p>-----</p> <p>Structural interventions to increase the resilience of the territory to the risks induced by climate change.</p>	<p>Cooperatives of fishermen and shellfish farmers. Coastal municipalities (Rosolina, Taglio di Po, Ariano del Polesine, Porto Tolle, Porto Viro, Adria, Corbola, Loreo, Papozze). Po Delta Park (part of the Veneto region). Province of Rovigo. Delta del Po Reclamation Consortium. Interregional Agency for the Po River (AIPO). Po Basin Authority. Regional Agency for the Environment of Veneto (ARPAV). Ministries.</p>
HIGHLIGHTED CRITICALITIES	PROPOSALS
<p>Overlapping of skills in the various sectors of interest.</p> <p>Lack of coordination between the various institutional subjects.</p> <p>Lack of a single legal framework of reference (eg. difficulty in connecting between Integrated Coastal Area Management and Maritime Spatial Planning).</p> <p>Lack of financial resources. Difficulty in involving stakeholders during the process.</p>	<p>Improving the performance of existing defensive systems: ensuring the surveillance, maintenance, integration and adaptation of defensive system.</p> <p>Reduce exposure to risk with particular attention to vulnerable areas, due to the environmental or economic importance.</p> <p>Monitor existing assets in floodable areas, even for rare scenarios, and promote the reduction of the economic vulnerability of the territory and of individual assets.</p>

Summary sheet: n. TG - 6

TARGET GROUPS and SECTORS	STAKEHOLDERS
<p>Public authorities. General public. Civil society.</p> <p>-----</p> <p>Training and information (1).</p>	<p>Coastal unicipalities (Rosolina, Taglio di Po, Ariano del Polesine, Porto Tolle, Porto Viro, Adria, Corbola, Loreo, Papozze). Province of Rovigo. Trade Associations. Inhabitants of coastal municipalities.</p>
HIGHLIGHTED CRITICALITIES	PROPOSALS
<p>Lack of initiatives to increase knowledge of the territory and its response to climate change.</p> <p>Lack of proposals to increase knowledge of good adaptation practices, for example in strategic sectors for the territory such as fishing, agriculture.</p> <p>Lack of financial resources for training.</p>	<p>Increase the awareness of coastal communities on the risks to which the territory is subjected in relation to climate change and the possibilities for adaptation.</p> <p>Improve the real knowledge of the risk by favoring the development of technical-scientific tools suitable for the evaluation and management of the territory.</p> <p>Expand the training proposal with attention to strategic sectors (fishing, agriculture, tourism, school).</p>

Summary sheet: n. TG - 7

TARGET GROUPS and SECTORS	STAKEHOLDERS
<p>Public authorities. General public. Civil society. ----- Training and information (2).</p>	<p>Schools of various types and levels. Teachers, School Managers, Students.</p>
HIGHLIGHTED CRITICALITIES	PROPOSALS
<p>Lack of initiatives to increase knowledge of the territory and its response to climate change.</p> <p>Lack of proposals to increase knowledge of good adaptation practices, for example in strategic sectors for the territory such as fishing, agriculture.</p> <p>Lack of financial resources for training.</p>	<p>Increase the awareness and the consequent willingness on the CC to implement virtuous actions of students and teachers.</p> <p>Improve the real knowledge of the risk by favoring the development of technical-scientific tools suitable for the evaluation and management of the territory.</p> <p>Expand the training proposal with attention to schools (teachers and students).</p>

The first possible measures are briefly described in the tables below, and the regulatory framework is reported.

Summary sheet: n. **TG – 1 – Measures.**

SECTOR
Integrated management of coastal areas (in coordination with territorial planning to build sustainable development).
MEASURES
Sustainable management of coastal space and related resources. Strengthening of multi-level environmental governance to facilitate decision-making processes and to facilitate the implementation of the results of the Adaptation Plan to the CC in the drafting of Sector Plans.
REFERENCE REGULATORY FRAMEWORK
All the rules relating to planning aspects, from the municipal master plan (territorial planning plan or PAT) to the management plan at the basin scale. Directive n. 2014/89/EU (Maritime Spatial Planning). Legislative Decree n. 201 of 17 October 2016, implements Directive 2014/89/EU. Directive 2008/56/EC (Marine Strategy) and Legislative Decree 190/2010 (directive transposition).

Summary sheet: n. **TG – 2 – Measures.**

SECTOR
Fishing, aquaculture, shellfish farming.
MEASURES
Development of web platforms for sharing information between fishing operators and other interest groups to facilitate the monitoring of activity at sea and the operation of "short supply chains" in the marketing of fish. Transition to new genetic varieties and management of practices more suited to changed conditions. Variations in new species may contribute to reducing the vulnerability of the sector to the effects of climate change, leading to a transition to more climate resilient organisms, which live better in different conditions. Economic or fiscal incentives aimed at diversifying activities, in compliance with the protection of fish stocks and marine resources, initiating a transition to new forms of activity (fishing tourism, farming in the sea). NOTE: The cost of developing techniques for the breeding of new species and the time required to bring these species to market constitute a significant obstacle, as well as legislative and management restrictions, which slow down change and flexibility.
REFERENCE REGULATORY FRAMEWORK
Member States are responsible for monitoring their fishing and related activities, while the EC checks how they fulfill their responsibilities. The sector is governed by Regulation (EC) no. 1224/2009 (regulation on control). It has been supplemented by regulation (EC) no. 1005/2008 relating to illegal, unreported and unregulated fishing (IUU regulation), and by Regulation (EU) no. 2017/2403 on the management of external fishing fleets, in a comprehensive package that integrates the responsibilities of EU Member States as coastal, port and marketing states. In addition, Directive n. 2014/89/EU establishes a framework for maritime spatial planning with the aim of promoting the sustainable growth of maritime economies (so-called blue economy), the sustainable development of marine areas and the sustainable use of marine resources. Legislative Decree n. 201 of 17 October 2016, implements Directive 2014/89/EU.

Summary sheet: n. TG – 3 – **Measures.**

SECTOR
Prevention and mitigation of salinization processes in coastal areas
MEASURES
<p>Integrated management of lagoon areas with interventions aimed at maintaining the environmental characteristics. Management of water inflows and outflows. Protection and restoration of wetlands to counteract the phenomenon of salinization of soils and water tables.</p> <p>Studies and researches to better understand the trend of the saline wedge. Hydraulic barriers and other tools and methodologies. to counter the intrusion of the saline wedge.</p>
REFERENCE REGULATORY FRAMEWORK
<p>Directive 2000/60/EC (Water Framework Directive) and Legislative Decree 152/2006 and subsequent amendments (directive transposition).</p>

Summary sheet: n. TG – 4 – **Measures.**

SECTOR
Reduce the spread of plastics. Prevent and generally mitigate pollution and the spread of pollutants in the sea.
MEASURES
<p>Creation of "ecological islands" within the port areas for the collection of plastics and waste in general. Incentives for fishermen for the collection of waste at sea (nets, polystyrene boxes, etc.) and the transfer to the collection areas (ecological islands).</p> <p>Promote and finance training initiatives for sector operators and administrators. Promote environmental education programs in schools.</p> <p>Development of guidelines on the use of new technologies and materials. Promoting research on new materials with which to replace the "plastic socks" used for shellfish farming.</p> <p>Creation of labeling systems for fishing nets.</p>
REFERENCE REGULATORY FRAMEWORK
<p>Directive 2008/56/EC (Marine Strategy) and Legislative Decree 190/2010 (directive transposition). Directive 2000/60/EC (Water Framework Directive) and Legislative Decree 152/2006 and subsequent amendments (directive transposition).</p>

Summary sheet: n. TG – 5 – **Measures.**

SECTOR
Structural interventions to increase the resilience of the territory to the risks induced by climate change.
MEASURES
<p>Implementation of structural interventions, such as Strengthening of the embankments. Nourishment of the coast. Installation of fixed and / or mobile barriers.</p> <p>Improvement of monitoring systems for coastal areas and meteorological forcing. Improving knowledge of risk: promoting the development of technical and scientific knowledge suitable for the assessment and management of the territory.</p> <p>Increase the awareness of coastal communities about risks due to climate change and the possibilities for adaptation.</p>
REFERENCE REGULATORY FRAMEWORK
River Basin scale management plan. Water Protection Plan. Territorial planning plan on a municipal or inter-municipal scale (PAT or PATI).

Summary sheet: n. TG – 6 – **Measures.**

SECTOR
Training and information.
MEASURES
<p>Extensive program and funding of specific training courses. Network to implement knowledge sharing.</p>
REFERENCE REGULATORY FRAMEWORK

Summary sheet: n. TG – 7 – **Measures.**

SECTOR
Training and information.
MEASURES
<p>Extensive program and funding of specific training courses dedicated to teachers. Extensive program and funding of specific training courses dedicated to students. Creation of a permanent link with schools. Network to implement knowledge sharing. Creation of specific laboratories</p>
REFERENCE REGULATORY FRAMEWORK

8. *Inclusion of the process outcomes in the Adaptation Plan for the Delta Po – Veneto Region - Pilot Area*

The participatory process of the Veneto Region has traced a path that goes from knowledge of the global phenomenon to the response of the environment in the pilot site, retracing the phases of the CHANGE WE CARE project.

To identify a resilient model, there are different ways and approaches. Some of them were illustrated during the workshops and will be considered in the Planning phase. An aspect to be taken into consideration and developed will be the following. In the linked network "A- greenhouse effect - B- climate change - C-impacts - D-effects", which must be considered a priori for the pilot site, it must be established "the starting point" on which it will be possible to act to obtain a cascade effect on the various environmental and social components.

However, some considerations must be made:

A - Greenhouse effect.

Taking into account that the CWC project is developed for pilot sites, to solve local problems, it makes no sense to start from actions aimed at reducing CO₂. General actions in this sense are already foreseen by national and regional policies (energy saving, management of green areas, use of alternative energies, etc.).

B - Signs of climate change.

- Increase in average daily temperature: not controllable on a large scale; in the city, the high temperatures on the ground can be countered by shading or cooling with water jets.
- Increase in days of intense rainfall, increase in consecutive days of drought: not countervailable.
- Increase in "summer" days, decrease in cold days: cannot be countered.
- Increase in winter rains and decrease in summer rains: cannot be countered; possible mitigation interventions of accumulation (rolling basins) and irrigation.
- Increase storms, wind: cannot be countered.

In order to develop a capacity for cultural / productive / technological adaptation, it will be necessary to have a knowledge base that allows us to predict future territorial conditions in advance, then collect more data on the climate by developing monitoring networks (WP4.4.1).

C - Impacts due to climate change.

- Sea level rise: not containable.
- Increase in sea temperatures and acidity: locally, on a small scale, some of the management interventions of lagoon and river flows can lead to mitigation.
- Aridity, loss of soil fertility: mitigated with controlled agriculture.
- Coastal erosion: mitigable and orientable with continuous protection and nourishment interventions.
- Oscillation of floods and lean rivers: not countervailable, possible mitigation action by acting on the dams (but loss of electricity and accumulated water).

D - Effects of climate change

- Submersion and retreat coast: not mitigable.
- Submersion of sandbanks and sandbars: continuous nourishment, in relation to costs.
- Bathymetry increase: not mitigable.

- Loss of drinking water resources: can be contained with management adaptations.
- Effects on food resources: manageable with monitoring of environmental conditions, development of innovative production techniques.
- Risk of catastrophic events (flood, submersion, storm, ...): mitigated with civil protection actions, compensable.
- Loss of productivity (e.g. clams): can be contrasted with the improvement of cultivation techniques, the selection of suitable sites, the selection of the most suitable varieties, the implementation of appropriate tools.
- Loss of habitat (e.g. reeds, dunes): manageable with replanting systems and protective structures, dune restoration.
- Loss / replacement of species (e.g. amphibians, birds): partially mitigated by protecting current habitats (however the presence of new species can be an added value).
- Water quality (e.g. saline intrusion, pollution): artificial hydraulic recharging, systems of infiltration wells, hydraulic barriers, anti-salt barriers in the terminal sections of the watercourse, management of river flows.
- Seaside tourism: mitigabile con una appropriata gestione dei flussi e dei percorsi turistici, educazione ambientale.
-

The possible interventions can be divided into various types, for example:

Progressive protection actions, such as:

- River embankments.
- Pumping.
- Reinforcement of sand bars.
- Beach nourishment and coastal dunes.
- Fixed sea defenses.
- Consolidation of salt marshes.
- Quenching and tempering.

Adaptation actions:

- Management of water and sediment flows.
- Expansion basins (floodable artificial areas, to contain river floods).
- Flood warning systems.
- Increase in barrier vegetation.

No action:

- Migration of wetlands inland (possible effect).
- Violation of coastal defenses, allowing the creation of intertidal habitats (possible effect).

The possible interventions can be divided also according to innumerable other subdivisions and categories.

During the participatory process some problems and some proposals emerged, already briefly described above, which can be integrated into the PLAN, after further investigation.

However, a further summary framework has already been drawn up, and is presented in the following tables.

In the Plan rules, which will be developed for deliverable no. 5.6, the coherence of the proposed actions and measures with the current legislation will occur and in particular with the actions envisaged by the PNNR (National Recovery and Resilience Plan).

Proposal no. 1: Elaborate an inter-sectoral "Delta lagoon plan", establishing a priori, at a strategic level, a long-term development objective, first of all defining whether to operate in order to keep the lagoons in their current conformation or to let them go towards natural evolution.

VISION	STRATEGY	GOALS	BODIES INVOLVED	LOCAL PLANNING
Create a resilient environment	Synergy between the parties involved;	Create a shared development plan for the Delta, based on the expected impacts of climate change	All stakeholders in the area. In particular, park authorities and protected area managers	Urban and landscape plans Water resources management plans Environmental protection plans Fishery resource plans Land and sea mobility plans
Create a resilient environment	Improvement of the effectiveness of planning, and the efficiency of interventions and funding	Simplification of bureaucracy; Signing of program agreements; Maintain an ongoing participatory process.	Veneto Region Local public bodies Interregional agency for the river Po Land reclamation consortia Consortia of fishermen	
Create a resilient environment	Cost-benefit analysis	Sustainability of long-term spending	Veneto Region Local public bodies Interregional agency for the river Po Land reclamation consortia Consortia of fishermen	

FOCUS: PLANNING

PROPOSED BY TARGET GROUP: FISHERMEN

CRITICAL ISSUE: POOR COORDINATION OF INTERVENTIONS. LOSS OF SKILLS AND KNOWLEDGE

Proposal no. 2. Coordinate the project choices that refer to different sources of funding.

VISION	STRATEGY	GOALS	BODIES INVOLVED	LOCAL PLANNING
Take advantage of funding opportunities	Create an agency suitable for the delta area	Direct funding and make resources more efficient	Veneto Region Private partners Local institutions	Rural Development Plan <i>EU Cohesion policies (ERDF funds, EMFF funds, etc.</i>
Take advantage of funding opportunities	Create an open source web platform	Exchange of experiences between all actors, public and private	Veneto Region Private partners	

FOCUS: BETTER EXPLOITATION OF AVAILABLE FUNDS

PROPOSED BY TARGET GROUP: TRADE ASSOCIATIONS

CRITICAL ISSUE: DISSIPATION OF FUNDING

Proposal no. 3. Develop a shared path - not only with all entrepreneurs and citizens of the Delta - but also with the District Authority of the Po river basin, and with the Interregional Agency of the Po river (AIPO) in order to manage the Po delta area.

VISION	STRATEGY	GOALS	BODIES INVOLVED	LOCAL PLANNING
Managing the Po Delta as a unique ecosystem	Create a platform for exchanging information on projects and policies	Share common goals by agreeing on interventions	Regional Agency for the Environment (ARPAV) Interregional Agency for the Po River (AIPO) Land reclamation consortia Veneto region District Basin Authority	Delta Po area plan Regional Territorial Coordination Plan (PTRC) Park Plan Intervention plan of public bodies
Agree all morphological interventions in the lagoons with fishermen and producers.	Establish discussion tables in the preliminary design phase	Design structural interventions compatible with local activities	Veneto Region Regional Agency for the Environment (ARPAV) Trade associations	Coastal Area Management Plan
Design a Sediment Management Plan	Various interventions including the renaturalization interventions of the floodplain areas of the Delta	Reduce the erosion and the coastal retreat.	Interregional Agency for the Po River (AIPO) Veneto Region Other Regions (Po Basin) District Basin Authority	

FOCUS: COLLABORATION BETWEEN RIVER, TERRESTRIAL, LAGOON, MARINE SKILLS

PROPOSED BY TARGET GROUP: FISHERMEN

CRITICAL ISSUE: POOR COORDINATION

Proposal n. 4. Develop scientific research on ecological dynamics in the North Adriatic to identify the real reasons for the reduction of the catch and the contraction of some fish species compared to the expansion of others.

VISION	STRATEGY	GOALS	BODIES INVOLVED	LOCAL PLANNING
Sustainable fishing	Develop research on the biology of local fish species	Understanding the real reasons for the reduction in the abundance of fish species	Higher Institute for Environmental Protection and Research (ISPRA) Institute of Marine Sciences (SMAR) Fishermen's cooperatives	<i>EU Cohesion policies (EMFF funds)</i>
Sustainable fishing	Balancing fisheries targeted in the delta	Specific legislation at regional and local level		

FOCUS: SCIENTIFIC RESEARCH

PROPOSED BY TARGET GROUP: TRADE ASSOCIATIONS

CRITICAL ISSUE: REDUCTION IN THE AMOUNT OF FISHING

Proposal n. 5. Improve the information network and monitoring databases in the river-lagoon-sea context.

VISION	STRATEGY	GOALS	BODIES INVOLVED	LOCAL PLANNING
Create a long-lasting dataset in order to implement the forecast models already set up with the CWC project	Unique WEB site for the Delta	Shared knowledge of foreseen phenomena - scenarios	Higher Institute for Environmental Protection and Research (ISPRA) Institute of Marine Sciences (SMAR) Veneto Region Emilia-Romagna Region	
Share the results of the models with local representatives	Unique WEB site for the Delta	Shared knowledge of foreseen phenomena - scenarios	Higher Institute for Environmental Protection and Research (ISPRA) Institute of Marine Sciences (SMAR) Veneto Region Emilia-Romagna Region	

FOCUS: SHARING AND INTEGRATION OF ENVIRONMENTAL DATA

PROPOSED BY TARGET GROUP: TRADE ASSOCIATIONS

CRITICAL ISSUE: LOW EFFICIENCY OF FORECAST MODELS

Proposal no. 6. Organize dedicated dissemination events. (The need was noted for teachers and school representatives to access courses and events on the subject of CC. The availability of some representatives of associations and institutions to carry out educational activities was also noted).

VISION	STRATEGY	GOALS	BODIES INVOLVED	LOCAL PLANNING
Increase the awareness of the resident population in the area of problems in land management and increase public participation in resilience strategies.	Disseminating knowledge on climate change. Provide products for environmental education using communication methods differentiated by target group, starting from schools; laboratory manuals for teachers, videos, games, etc.	Create a widespread awareness of the fragility of the territory and local risks in relation to climate change	School district; Teachers; Environmental associations; Region - training sector University	

FOCUS: ENVIRONMENTAL EDUCATION
PROPOSED BY TARGET GROUP: TEACHERS
CRITICAL ISSUE: LOW KNOWLEDGE OF CLIMATE RELATED ISSUES

Proposal n. 7. Focus the local economy on the short supply chain of the product and on conscious consumption.

VISION	STRATEGY	GOALS	BODIES INVOLVED	LOCAL PLANNING
Economy at zero kilometers	Valuing local products	Develop the short chain of typical products	All	

FOCUS: ECONOMICS AND TOURISM
PROPOSED BY TARGET GROUP: TRADE ASSOCIATIONS
CRITICAL ISSUE: LOW VALORISATION OF LOCAL PRODUCTS

Proposal n. 8: Develop systems to reduce pollution from plastics resulting from farming and fishing activities (e.g alternative materials, energy recovery from plastics).

VISION	STRATEGY	GOALS	BODIES INVOLVED	LOCAL PLANNING
Reduce the mortality of macrofauna in the sea	Produce fishing nets in decomposable materials	Reduction of the presence of fishing nets abandoned in the seabed	Universities Companies that deal with the development of new environmentally friendly technologies	MARLESS Project
Contrast to plastics and microplastics in water	Organization of the marine waste management chain	Selective barriers for the capture of plastics on the branches of the Po, Active collaboration of fleets; Approval of the law proposal in progress;	Port authorities ARPAV	Marine strategy (regional monitoring concerning marine litter) Waste management plan. DGR n. 124 of 11 February 2014. Management of waste lying on the beaches
Contrast to plastics and microplastics in water	Environmental education	Educate on waste collection, Encourage the population not to throw waste into the environment	Environmental associations	

FOCUS: AQUATIC MACROFAUNA
PROPOSED BY TARGET GROUP: FISHERMEN
CRITICAL ISSUE: MARINE LITTER

Proposal n. 9. Develop prevention actions against damage from extreme events, at the level of civil protection, such as monitoring systems and warning systems.

VISION	STRATEGY	GOALS	BODIES INVOLVED	LOCAL PLANNING
Health prevention	New monitoring and alert systems	Give the population time to get to safety in case of severe weather	Municipalities Regional civil protection Regional Environment Department Local civil protection volunteers	Municipal civil protection plan, Municipal emergency plan
Damage prevention	Maintenance of the building and trees	Limit accidents and damage due to strong winds	Municipalities Private citizens	PAT PAES
Damage prevention	Maintenance and reinforcement of embankments, barriers, expansion areas	Reduce the effects and damage due to floods	Regional civil engineering Soil Defense Directorate Reclamation consortia	Integrated Coastal Zone Management Regional planning and projects on the coast line

FOCUS: CIVIL PROTECTION

PROPOSED BY TARGET GROUP: PUBLIC BODIES

CRITICAL ISSUE: FLOODS AND STORMS

Proposal n. 10 For the Sacca del Canarin, the goal is to reverse the dynamics of environmental degradation caused by poor hydrodynamics, anoxia, and alteration of the salt balance. Its vivification will improve fish production and may lead to local tourism development.

VISION	STRATEGY	GOALS	BODIES INVOLVED	LOCAL PLANNING
Vivification of the lagoon	Hydro-morphological interventions (see specific project)	Increase fish production and shellfish farming	Regional Civil Engineering Regional fishing sector	Integrated Coastal Zone Management

FOCUS: ENVIRONMENTAL QUALITY

PROPOSED BY TARGET GROUP: FISHERMEN

CRITICAL ISSUE: DECAY OF CANARIN LAGOON

SACCA DEL CANARIN

To prevent the occurrence of phenomena of poor hydraulic circulation and avoid the consequent deterioration of an environment with a delicate balance, a series of actions are required.

Landfill phenomena, changes in temperature and / or salinity, loss of habitat, can upset an environment of great value and of enormous importance for the economic activities connected to it (in particular aquaculture and shellfish farming).

In particular, the dredging of the network of sub-lagoon canals located near the mouth of the Sacca del Canarin and in the innermost ones must be periodically carried out, as well as the creation or restoration of an adequate surface with mudflats and sandbanks that delimit the route of the canals.

These measures are aimed at the recovery of suitable sections for the development of a hydrodynamic regime that favors water exchange and general vivification with consequent improvement of environmental quality.

Implementing the aforementioned measures will benefit both the local fishing sector and the habitat with the increase in the presence of species (avifauna, ichthyofauna). In fact, the area is very valuable from a tourist point of view, both for the landscape and for the presence of numerous species of birds (avifauna) which attracts many visitors (bird watching). In addition, the area also has an economic importance as in this lagoon, as in many other lagoons of the Po Delta, the activity of aquaculture is developed.

9. *Closing remarks on the experience, future implementation and transferability*

The timing imposed by the project was sufficient to start a participatory process, which should continue over time and involve the stakeholders until the interventions are carried out, at least at an informative level.

The public administration, are sometimes limited in acting by processes of revision and shifting of competences and objectives, and struggles to guarantee the continuity of participatory processes.

First of all, it should be noted that the request for involvement from our stakeholders has been strong and continuous throughout the process. The attitude of all the target groups has always been collaborative and the elements of discussion have been manifold. However, the topics covered concerned short-term processes and forecasts. A real awareness of the phenomena related to the CC seems to be lacking, especially as regards the evolutionary scenarios. However, the need to deepen one's knowledge on these issues appeared relevant for all categories, especially as regards schools and local authorities.

In a context made up of risks but also of opportunities, all environmental, anthropogenic and economic factors must be taken into account for each measure and action of adaptation / mitigation to climate change.

Factors such as replicability and transferability will help to give substance to the principles and objectives aimed at sustainable development of the territory, allowing the identification of the best strategies to implement measures and actions to be proposed more quickly with lower costs.

The opportunities and advantages in replicating a good practice derive from being able to use actions that have already been successfully tested, and from being able to achieve results on a large scale that would otherwise be relegated to a limited territorial area. In this way, it is possible to guarantee the achievement of the environmental sustainability objectives and, at the same time, contribute to the strengthening of local technical capacities thanks to the comparison with the subjects who have developed the good practices.

For most of the proposals indicated in this document, the level of transferability is medium to high with the prospect of good results obtainable from:

- reduction of implementation times and costs (for example by eliminating the preliminary activities of conception, research and design),
- optimization of resources also for the possibility of using single parts of projects / proposals (specific activities, methodologies, products, etc.),
- application of innovative technologies already developed in other territorial areas.

As for the aspects relating to Integrated Management and Planning, these are closely linked to the territory, its criticalities and specificities. The identification of coordination and management strategies could be replicable, favoring and strengthening multi-level environmental governance, facilitating decision-making processes, simplifying / standardizing implementation-management mechanisms and authorization processes. All this could contribute to reducing the differences in the application of regulations and in the drafting of sector plans, creating the conditions for replicating good practices and successful adaptation (and mitigation) actions in other situations.

The aspect relating to structural interventions to increase the resilience of the territory to the risks induced by the CC also responds to specific local needs. Sharing methods, tools and best practices can avoid the dispersion of knowledge and favor the development of synergies, including at a financial level, as well as contributing to the strengthening of administrative and territorial capacities.

The capitalization of the experiences and the dissemination of the results for the replicability of good practices for the environment and the climate, adapted to the territorial contexts of reference, will also contribute to improving the effectiveness in the use of financial resources.