



Capitalisation projects 2012
Priority-Objective 2-4
Axe 2: Protection of the environment and promotion of a sustainable territorial development
Objective 2.4: Prevention and fight against natural risks

Deliverable 3.1/A: Promoters Partner's Reports

Best Practice 11:

"Coastal Video Monitoring Network"

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COASTGAP PARTNERS:



REGIONE
TOSCANA



UAB
Universitat Autònoma de Barcelona

 Regione Emilia-Romagna

cetmef



REGIONE LIGURIA



rerasd


HELLENIC REPUBLIC
DECENTRALIZED
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OF CRETE

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OLAVIDE**
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1 INTRODUCTION

1.1 The COASTGAP Project Objectives

The Coastal Governance and Adaptation Policies in the Mediterranean Project (COASTGAP) is an initiative co-funded by the European MED Programme developed by a consortium of 15 partners: Regione Lazio (IT), Regione Emilia Romagna (IT), Department de l'Hérault (FR), Region of East Macedonia Thrace (GR), Region of Crete (GR), Regione Toscana (IT), Regione Liguria (IT), Ministry of Communication and Work (CY), CETMEF (FR), Universidad Pablo de Olavide de Sevilla (ES), FEPORTS (ES), Christian-Albrechts University Kiel (GE), Split-Dalmatia Country Regional Dev. Ag. RERA (HR), Dubrovnik County Regional Development Agency DUNEA (HR), Universidad Autónoma de Barcelona (ES).

COASTGAP main aim is to feed future actions and strategies for the next programming period 2014-2020 in relation to the pressing problem of Mediterranean coastal zone adaptation to climate change effects. This aim will be achieved through the capitalisation of 12 Best Practices produced by nine European Projects (COASTANCE, MAREMED, SHAPE, MEDGOVERNANCE, PEGASO, SHIFT, RESMAR, COMPASS and THESEUS). The Best Practices that COASTGAP will capitalise are: 1) the Guidelines for the environmental impacts of coastal protection works and plans, 2) the SICELL littoral cells management system, 3) the Bologna Charter, 4) the Methodology for ICZM Protocol Art.8 "setback zone" implementation, 5) the Regional Strategic Plan-Paper Intention, 6) the PEGASO Spatial Data Infrastructure and Geoportal for ICZM, 7) the Risk Model COFLERMAP-Coastal Flood Erosion Map, 8) the Integrated Quality Model for the development of sustainable routes, 9) the Coastal Observatory, 10) the DIVA Model, 11) the Webcam Network, and 12) the Decision Support System.

1.2 Purpose and Scope of the present Deliverable

The present deliverable constitutes the first step for the Best Practices Capitalisation Process of the COASTGAP Project, and its goal is to set up a relationship between the Promoting Partners (PP) of the Best Practices (BPs) and the Partners Interested in their adoption (or Adopting Partners (AP)), and introduce each BP to the AP through a report produced by the PP. Each PP (Regione Lazio, Regione Emilia-Romagna, Regione Toscana, Regione Liguria, Region of East Macedonia Thrace, Universidad Pablo de Olavide de Sevilla, CETMEF, Christian-Albrechts University Kiel) has analysed its respective BP in order to verify its level of development/efficiency and its technical transferability, with special consideration to the aim of the Project.

As a result of the BP analyses, each PP has produced a report -which is the basis for the present Deliverable 3.1/A: *Promoters Partner's Report*-, in which a brief description of the capitalised practices is provided as well as information from preliminary COASTGAP documents on the BP and a Capitalization Roadmap with the main activities and expected outputs is presented. In some cases a capitalisation timetable is also presented.

Each PP has also produced for this report a *Key Points' Table*, designed to compile information on the administrative, technical, scientific and practical issues needed to analyse the transferability of each BP, highlighting the required adaptation measures for the suitable capitalisation of the BP, that will be of paramount importance for the coming 3.1/B Interested Partners Report.

When appropriate, an Annex has been introduced with additional information on the Best Practice.

2 BP N.11 – "Coastal Video Monitoring Network" (Promoting Partner: Liguria Region)

Coastal video-monitoring network implementation based on commercial webcams, aiming to homogenization of acquired data and reduction of management costs

2.1 Frame of the win-win process (from preliminary COASGAP Roadmap document (Ferrara Steering Committee)).

From Project	Promoting Partner	interested Partners	COASTGAP aims	Expected COASTGAP results	Assessment elements	Type of activities
RESMAR (IT-F Maritime)	P7 Liguria Region	P1 Lazio Region P7 Tuscany Region	Sharing coastal video monitoring network platform with partners and stakeholders	Allowing users to create a coastal video monitoring network based on commercial webcams in order to study local beach trends and correlate them to different (spatial/ temporal) causes.	Number of countries/ public institution s/research centres adopting the proposed platform.	1. Dissemination of beach video monitoring system structure and its usage among partners and project network; 2. Discussion on possible system improvements

2.2 Short description of the "Coastal Video Monitoring Network"

Video monitoring allows to study coastal environment in a continuative and automatic way, representing a very useful tool to analyse nearshore processes over a wide temporal range (Aarninkhof and Roelvink, 1999; Davidson et al, 2004; Holland 1998). Many parameters of interest can be acquired in real time with this method, such as alongshore and across-shore evolution of shoreline and submerged bars, wave direction, storm impact and beach seasonal changes (Ojeda and Guillén 2008; Kroon et al, 2007; Smith and Pearce, 1997; Turner et al, 2004).

However, as it was, video monitoring lacked in data communicability and actual applicability. As Van Koningsveld et al. (2003) suggested, an approach must necessarily be adopted where the different aims can be considered, in order to create a compromise solution, providing scientific information which the end user can also easily read and utilize. In the ResMar (Reseau pour l'environnement dans l'espace maritime) Project an innovative and useful video monitoring method was introduced. Video monitoring was applied contemporaneously to different sites ensuring wide spatial coverage and creating a network in order to study and manage beach images all at the same time, thus guaranteeing a good temporal coverage.

The experimental video monitoring network was based on the elaboration of images gained from webcams or digital video cameras already installed for commercial purposes. Webcam network architecture is based on a management software connected with local host servers and websites containing raw data. Once acquired, all images are stored in a central platform where they are processed with Beachkeeper plus software [10] through standard photogrammetric techniques, image rectification and digital analysis. The software allows the identification of beach morphological traits and their mapping according to the chosen metric system coordinates.

The video monitoring network allows to rationalize employed resources in coastal monitoring management. Moreover, thanks to the creation of back up process for raw and processed data collection, the network supplies information about beach morphology with temporal continuity and spatial homogeneity. Such information will allow a more accurate and rational planning and design of littoral interventions, and it will therefore represent an effective instrument for a proper coastal management.

The website <http://beachcam.res-mar.eu> was created to host acquired data and make them available to end users. The website structure and its net surfing and communication logic can easily house new users, and network architecture can be expanded if new webcams are installed.

A permanent monitoring network, available for all interested littoral municipalities, will offer the opportunity to fully frame any phenomenon, to underline its temporary features, and to be able to evaluate emergency levels consistently and rationally as well as homogeneously on the whole territory.

2.3 "Coastal Video Monitoring Network" Capitalisation Roadmap

Activities	Evidences / Outputs	who	2013				2014													
			09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12		
A1. Methodology dissemination to involved partners	E1. Video monitoring guide document	All involved partners	F																	
A2. Customisation of Video Monitoring Network according to webcam availability.	E2. Customisation of Beachcam website	All involved partners								V			M						R	
A3. Adoption of customised Network and implementation planning for each partner	E4. Acts or letters for the implementation of: Document on Network customised version and implementation planning; Customised Network;												M						R	

Collaboration and assistance by

- direct contacts, e-mail, videoconferences, specific workshops/meetings (to be scheduled with the involved partners)
- project meetings ♦ (Ferrara, Valencia, Montpellier, Roma)

2.4 Expected activities and output for interested partners

Part n.	Name	Planned activities	Expected output
1	Regione Lazio	A1. / A2.	E1. / E2.
3	Regione Liguria	A1. / A2.	E1. / E2.
4	Regione Toscana	A1. / A2.	E1. / E2.

2.5 "Coastal Video Monitoring Network" homepage

Home Page Accueil

ResMar
RETE PER L'AMBIENTE NELLE SPAZIE MARITIME

Rete per il monitoraggio sull'erosione costiera
Azione di sistema A - Progetto ResMar

Home
Chi siamo
Progetto
Video
Immagini
Immagini rettificate
Linee di riva
Link

Webcam

Celle Ligure
Pietra Ligure
Alassio
Finale Ligure
Loano
Moneglia
Andora
Ospedaletti
Ceriale

commenti e suggerimenti a beachcam.info(at)gmail.com
website ottimizzato per Explorer v9/10, Firefox v16, Safari v6, Chrome 27

<http://beachcam.res-mar.eu>

3 KEY POINTS TABLE FOR BP11 "Coastal Video Monitoring Network"

INPUTS	FEEDBACK FROM APs
A. Administrative issues	
A1 - Do you know/have checked the administrative process to adopt this BP (in coastal planning/management activities) and its concrete feasibility? – please specify in few lines	
A2 - Did you involve the relevant offices / persons of your institution in charge with the future concrete application of this BP? – please specify in few lines	
B. Technical/scientific issues	
B1 - Does your Institution have technical skill and means (tools, staff) to put in practice this BP? – please specify in few lines	
B2 - Do you think to need technical adaptation/integration of the BP due to your territorial/environmental features? Which ones and for which reasons? – please specify	
B3 - Did you check the interest/possibility of adopting a part of the BP instead of the complete BP? – please specify in few lines	
B4 - Have you got actually proper data to feed/run the BP, or part of it, you are adopting? – please specify in few lines	
B5 - Did you identify the best format for the BP in order to easily integrate it into your Institute ordinary set of tools for coastal planning/management? – please specify	
C. Practical issues	
C1 - Do you need translation of the BP documentation?	
C2 - Need of particular conditions for the transfer/uptaking of the BP? (ftp, server settings, webgis, meetings, conference-calls, etc) – please specify in few lines	

¹ "This table will be completed by the APs during the next phases of the Project".

