

# Case Study 2 (Process In Itinere): Eia of a Port's Project using scheme of the environmental stages (using the forms and documentation on a real case-study in Italy)

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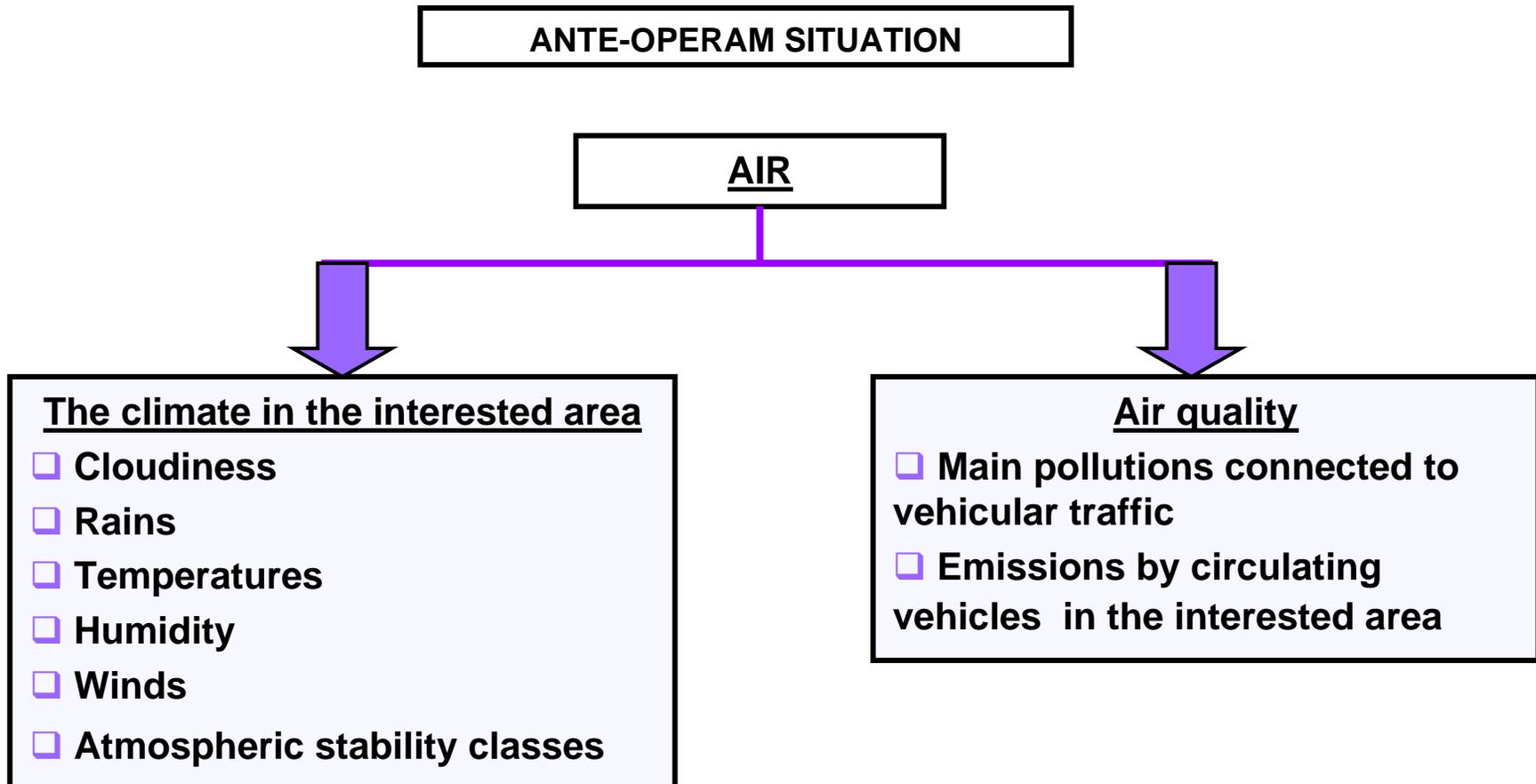
APAT

Agency for Environmental Protection and Technical Services

## Contents

1. Environmental phase (process in itinere analysis)
2. Temperatures and rains
3. Water – Soil and subsoil
4. Geologic map: extract
5. Quarries map: extract
6. Vegetation, flora, fauna and ecosystems
7. Present ecosystems map
8. Public health and social-economic context
9. Resident population
10. Employees in the municipality
11. Noise, vibrations and radiations
12. Landscape
13. Landscape unit: type-card

# 1. Environmental phase: process in itinere analysis



## 2. Temperatures and rains

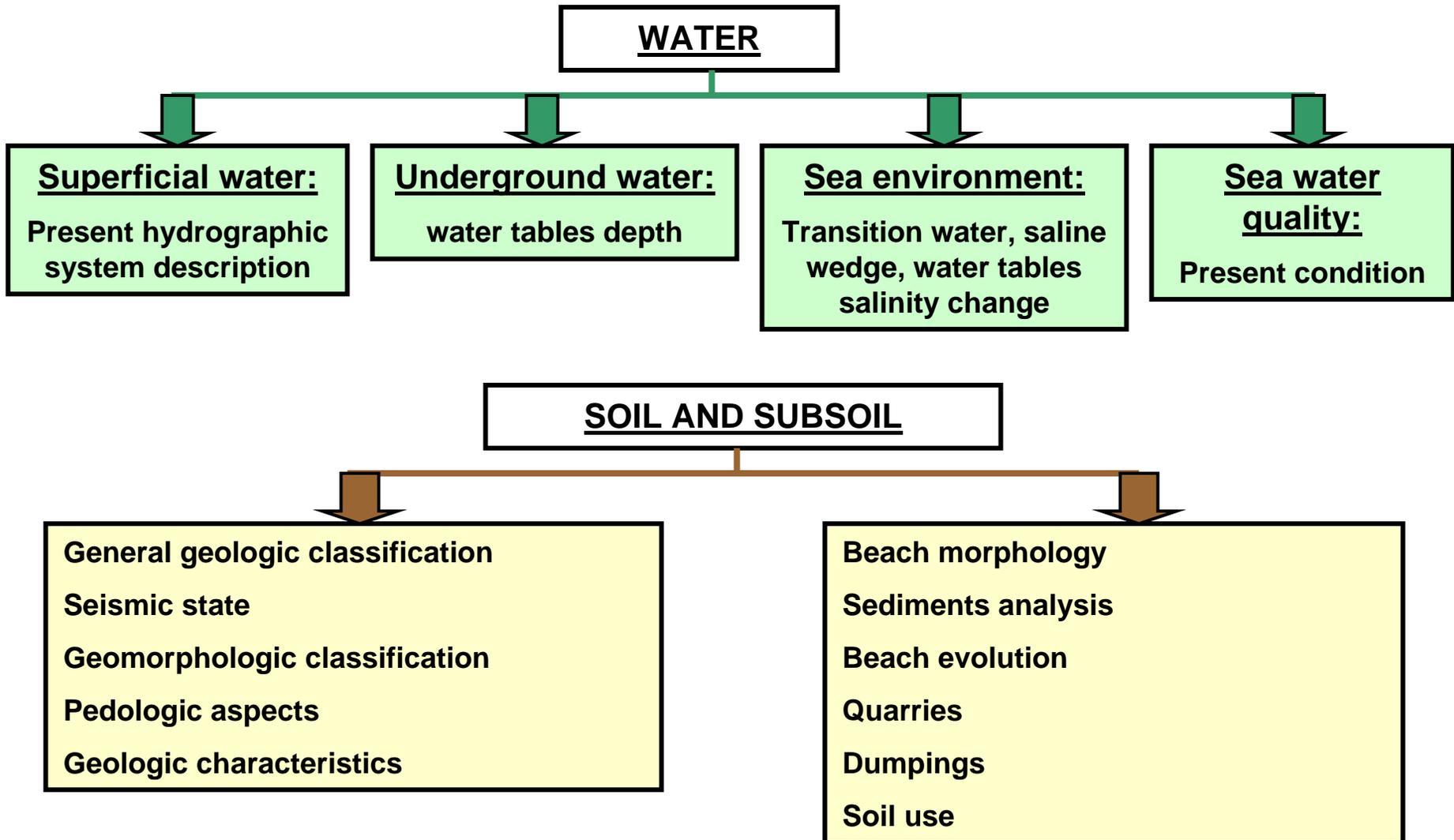
Resort	J	F	M	A	M	J	J	A	S	O	N	D	year	Abs. lower	Abs. Highest
	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6	5,6
	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7
	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2

TABLE of middle monthly and yearly temperatures, absolute lower and highest temperatures (°C)

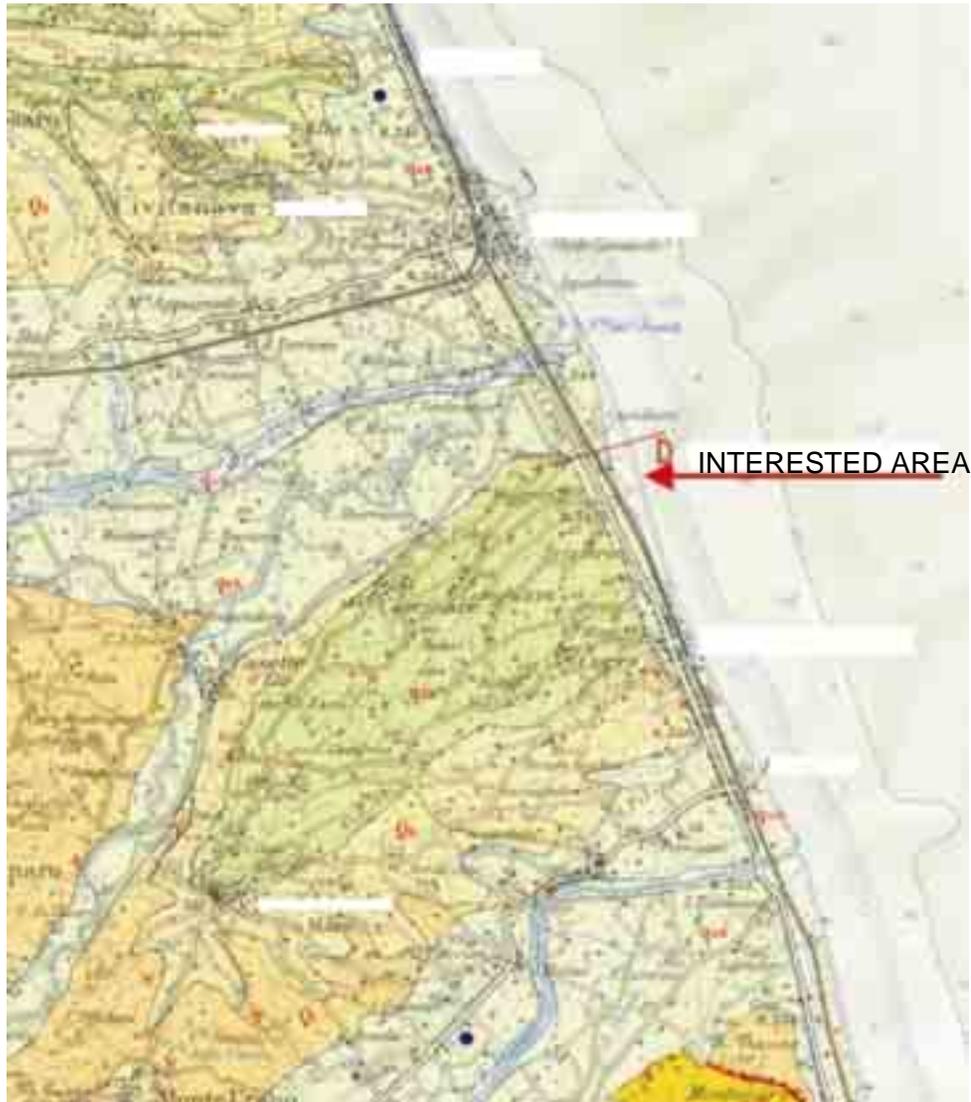
Resort	J	F	M	A	M	J	J	A	S	O	N	D	year
	68	68	68	68	68	68	68	68	68	68	68	68	68
	73	73	73	73	73	73	73	73	73	73	73	73	73
	61	61	61	61	61	61	61	61	61	61	61	61	61

TABLE of middle monthly and yearly rains (mm)

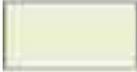
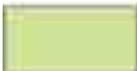
### 3. Water – Soil and subsoil



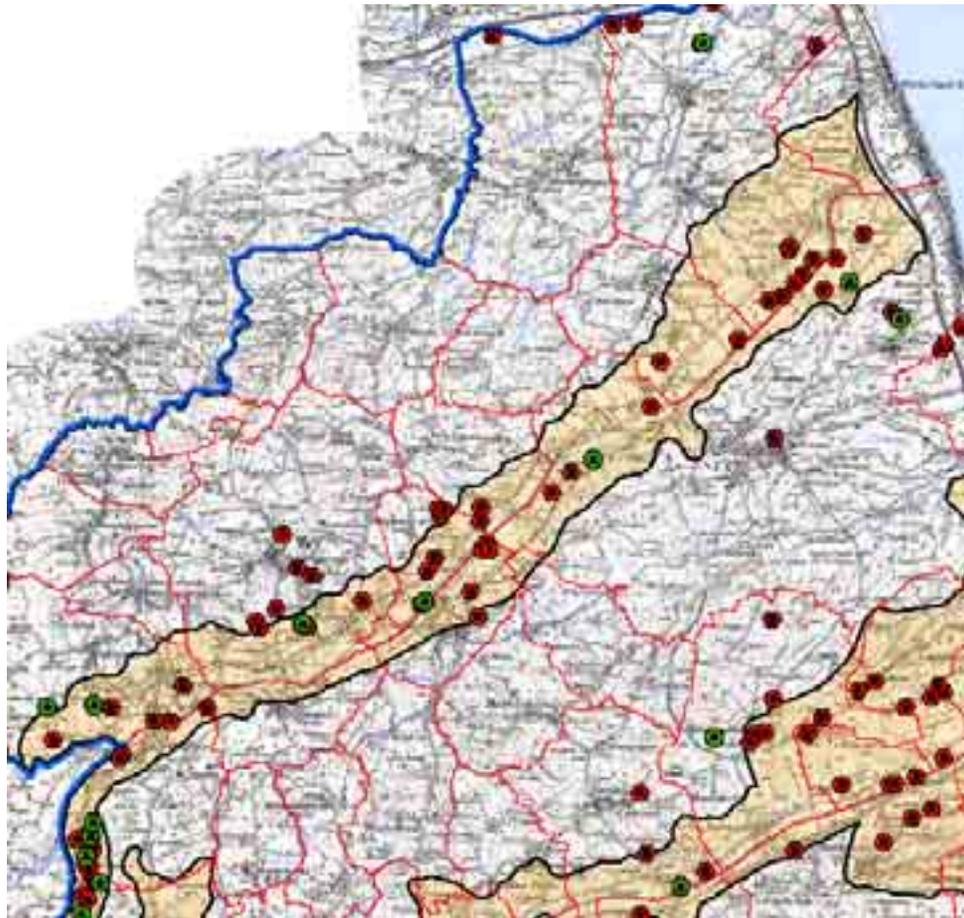
## 4. Geologic map: extract



### CONTENTS

	<b>Q<sub>3s</sub></b>	Alluvioni sabbioso-ghiaioso-ciottolose, di fiume o di litorale
	<b>Q<sub>3s</sub></b>	Alluvioni terroso-sabbioso-ghiaioso-Ciottolose. Terrazzi
	<b>Q<sub>3s</sub></b>	Sabbioni giallastri, talora fortemente cementati, o ghiaie, spesso cementate, con irregolari intercalazioni di ghiaietto e sabbie grossolane, fossili marini assenti
	<b>Q<sub>2</sub></b>	Strati sabbiosi con deboli intercalazioni argillo-sabbiose. Microfaune marine costiere, con episodi lagunari Salmastri
	<b>Q<sub>1</sub></b>	Parte superiore: argille, spesso fittamente stratificate con alternanze sabbiose. Parte inferiore: argille compatte, talora con deboli intercalazioni sabbiose, generalmente in calanchi

## 5. Quarries map: extract



CONTENTS

### MATERIALS TYPOLOGY



Gravel and sand



Disused quarries



Active quarries

## 6. Vegetation, flora, fauna and ecosystems

Present land  
vegetation

Sea  
flora

Fauna

Ecosystems: (sea ecosystem, dune and  
backdune ecosystem, anthropic  
ecosystem)



*Dune ecosystem (protected vegetation)*

## 7. Present ecosystems map



### CONTENTS

-  **Anthropic ecosystem**
-  **Natural ecosystem**
-  **Sea ecosystem**

## 8. Public health and social-economic context

### PUBLIC HEALTH



Public health characterization is carried out through the analysis of other environmental elements, that can disturb population and human activities and can cause impacts to hygienic and sanitary aspects:

- air (air pollution)
- noise and vibrations (acoustic pollution)
- sea water (water quality for stagnation in the basin)
- soil (waste production increase)
- mobility (incidents risk on land, caused by induced vehicular traffic increase, and in sea, caused by boats circulation)

### SOCIAL AND ECONOMIC CONTEXT



- population structure
- economic structure dynamics

## 9. Resident population

RESIDENT POPULATION												
1991	2000			2001			2002			2003		
TOT	TOT	M	W									
21112	22645	11122	11523	21750	10631	11119	23158	11310	11848	23598	11536	12062

Resident population in the municipality

RESIDENT POPULATION VARIATION							
between 1991 and 2000		between 2000 and 2001		between 2001 and 2002		between 2002 and 2003	
Absolute value	%	Absolute value	%	Absolute value	%	Absolute value	%
+1533	+7,26	-895	-3,95	+1408	+6,47	+440	+1,9

Resident population in the municipality variation

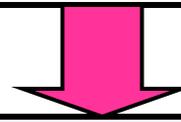
## 10. Employees in the municipality

ECONOMIC ACTIVITY SECTOR	EMPLOYEES NUMBER	LOCAL UNITS: TOTAL	
Agriculture and hunting	100		
Fishing and connected services	11		
Minerals mining	/		
Manufacturing activities	4789		
Electric energy, gas and water production and distribution	4		
Buildings	304		
Wholesale and retail trade	1180		
Hotels and restaurants	183		
Transport, storage and communications	111		
Monetary and financial intermediation	107		
Real-estate activities, hire, computer science and research	273		
Education	3		
Health and other social services	17		
Other public, social and personal services	266		
Domestic services for families	2		
Not classified businesses	228		
<b>TOTAL</b>	7578		<b>2900</b>
<b>PROVINCIAL TOTAL</b>	91724		<b>46183</b>

**Employees in the municipality for economic activity sectors**

## 11. Noise, vibrations and radiations

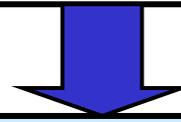
### NOISE AND VIBRATIONS



#### Works area characterization :

- emission sources
- sensitive receptors
- sensitive places presence

### IONIZING AND NOT IONIZING RADIATIONS



Just for foreseen works tipology, impacts derived by radiations (whether ionizing or not ionizing) aren't caused

## 12. Landscape

**Landscape description in interested area:**

- natural landscape (morphology, vegetational covering, superficial hydrographic net)
- anthropic landscape (archaeological, architectural, historical and artistic properties; chromatic aspects; anthropic built-up areas; infrastructure set-up; landscape detractors presence)



**Visual basin identification:**

- visual space determination
- visual space analysis
- visual environment quality and vulnerability valuation



**“Landscape units” identification**

## 13. Landscape unit: type-card

<b>Denomination - Location</b>		
<b>Description</b>	<b>Morphology</b>	
	<b>Vegetation</b>	
	<b>Superficial water</b>	
	<b>Chromaticism</b>	
	<b>Historic, architectural and archaeological properties</b>	
<b>Anthropic built-up areas</b>		
<b>Landscape detractors</b>		
	<b>Visual basin</b>	
	<b>Visual exposure</b>	
	<b>Frequentation</b>	
<b>Restrictions</b>		

Landscape unit: Type-card