

**Integrated Environmental Study
for Beach Management:
A Methodological Approach**

Mauro Fabiano, Gabriella Camarsa,
Rosanna Dursi, Roberta Ivaldi, Valentina Marin
and Francesca Palmisani

NOTA DI LAVORO 125.2004

OCTOBER 2004

NRM – Natural Resources Management

Mauro Fabiano, Roberta Ivaldi and Valentina Marin, *Department for the Study of the
Territory and its Resources, Genoa University*
Gabriella Camarsa, Rosanna Dursi, and Francesca Palmisani, *Fondazione
Eni Enrico Mattei*

This paper can be downloaded without charge at:

The Fondazione Eni Enrico Mattei Note di Lavoro Series Index:
<http://www.feem.it/Feem/Pub/Publications/WPapers/default.htm>

Social Science Research Network Electronic Paper Collection:
<http://ssrn.com/abstract=600602>

The opinions expressed in this paper do not necessarily reflect the position of
Fondazione Eni Enrico Mattei
Corso Magenta, 63, 20123 Milano (I), web site: www.feem.it, e-mail: working.papers@feem.it

Integrated Environmental Study for Beach Management: A Methodological Approach

Summary

This paper aims to present a project convened by the University of Genoa and Fondazione Eni Enrico Mattei (FEEM), in collaboration with Local Authorities, concerning the development of tools for beach management in the Riviera del Beigua (Liguria Region, Italy). The aim of the first step of the project is to assess the environmental state of resort beaches examining them interdisciplinary, through a data analysis based on a sound understanding of the components of the physical and the human system. The following step will be the treatment of the data, through the use of various instruments, which use a synthesis analysis, such as the traditional SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, and the use of a set of environmental and socio-economic indicators. Finally, our ultimate target is to propose guidelines, which will supply an instrument to back up policies concerning beach planning and management.

Keywords: Costal management, Sustainable tourist, Integrated assessment, Indicators

JEL Classification: Q20, Q26

This paper was presented at the Sixth International Conference on the Mediterranean Coastal Environment (MEDCOAST '03), held in Ravenna, Italy, on 7-11 October 2003.

Address for correspondence:

Francesca Palmisani
Fondazione Eni Enrico Mattei
Corso Magenta 63
20123 Milan
Italy
Phone: +390252036935
Fax: +390252036946
E-mail: francesca.palmisani@feem.it

Introduction

Coastal areas are places where demographic, economic, and environmental pressures reach their maximum (Henoque and Denis, 2001). The plurality of uses and the growing littoralisation are the cause of environmental and socio-economic impacts; so, there is thus an urgent need to integrate the many uses which depend on coastal resources and to develop them in harmony with the environment, to achieve a commonly acceptable coastal management framework.

Tourism is considered as a sector of activity of an extreme importance in the Mediterranean Basin. With nearly 220 million tourists visiting the Mediterranean and generating over US \$ 120 million, this region accounts one third of the world's total international tourist arrivals and 26% of world tourism receipts (UNEP, 2003). Thus, it is evident that tourism has become a global financial power, moving huge amounts of money and generating great economic benefits for many countries and regions, as well as job opportunities. However, mass tourism generally has a negative impact on coastal areas, even if, when well managed, it has the potential to create beneficial effects on the environment by contributing to environmental protection and conservation. In this way, quality tourism can contribute to the sustainable development of coastal areas by improving the competitiveness of businesses, meeting social needs and preserving the cultural and natural environment (EC, 2000).

In coastal tourism activity, especially in the Liguria Region, beaches play a key role considering that most of all tourist revenues earned by the coastal communes are largely due to the attraction of beaches. Due to human activity beach ecosystems are also under continuous stress because of waste disposal, over-engineering, urbanisation and tourism pressure, as stated by many authors, such as Defeo and De Alava (1995), Lercari and Defeo (1999), Shoeman *et al.* (2000). Despite this, apart from specific studies on engineering and beach erosion aspects and water quality, little work has been done for improvement in beach management practices (James, 2000; Micaleff and Williams, 2002).

In the context of this project, which concerns mass concentration of bathing activities conducted on beaches presenting a low physical carrying capacity, a correct elaboration and use of management tools for these coastal areas is necessary. In view of these considerations and, keeping in mind the attitude undertaken by the Communes towards sustainability issues, this project has the ultimate aim to propose a tool for environmental assessment to back up management strategies for the beaches of the Riviera del Beigua, promoting the rational development and sustainable use of coastal resources with the hopeful event of their being enclosed in an integrated planning tool.

Study area

The Riviera del Beigua (Fig. 1) is a coastal area situated on the west side of the Liguria Region, and it is made up of six Communes (Albissola Marina, Albisola Superiore, Celle Ligure, Varazze, Cogoleto and Arenzano). Host to great tourist and bathing attractions, it is also favoured by the proximity to a few of Northern Italy's

main cities (Milan, Genoa, Turin).

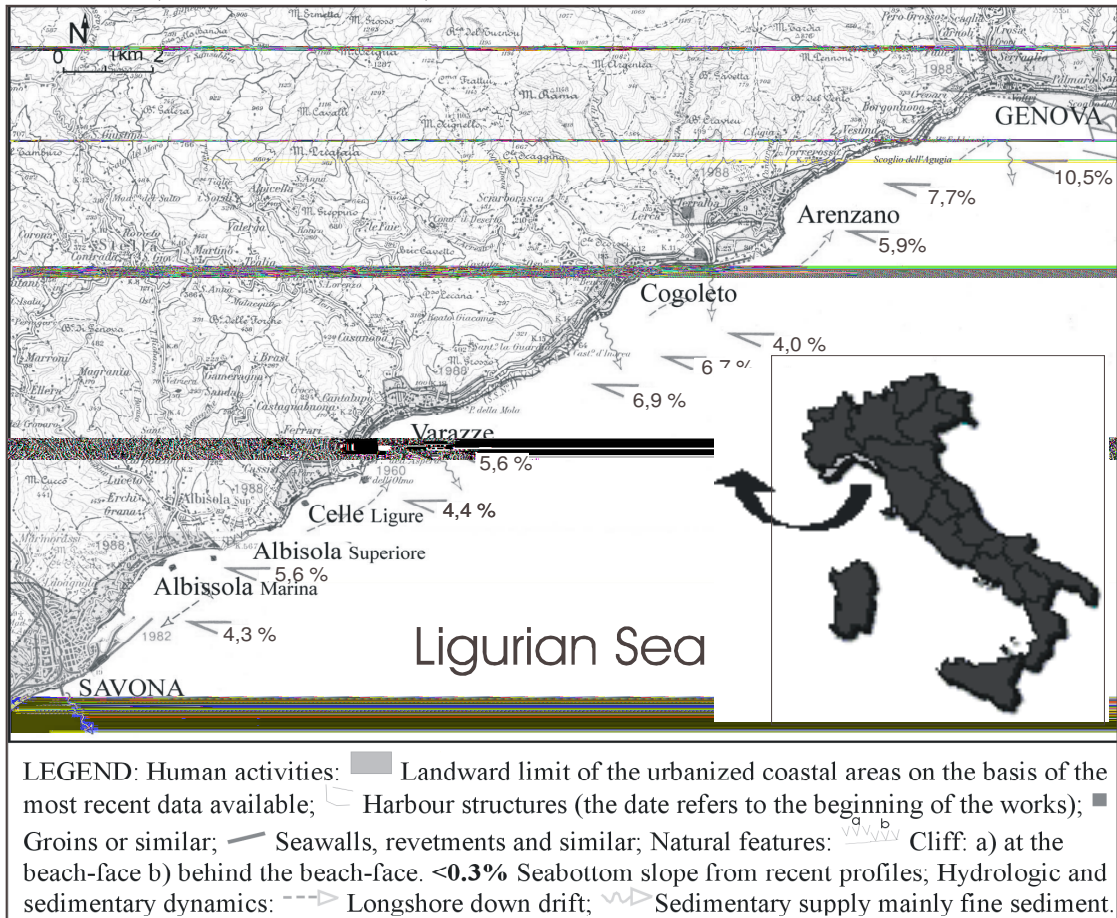


Fig. 1: Sheets no. 82 (Genova) and 92-93 (Albenga - Savona) modified from the Atlas of the Italian Beaches (AA.VV., 1999) show the Riviera del Beigua (western Liguria).

Closed between the sea and the mountains, this area is characterised by land scarcity. As a result, its population is mainly concentrated along the coastline and the high concentration of human activities, such as industries, harbour activities (both commercial harbours and marinas), fisheries and tourism, is often a major threat for the low carrying capacity of its coastal environment. The considered area has, in the past, been subject to a dramatic event, having the oil tanker Haven sunk therefore causing accidental pollution, this has led to considerable environmental and economic problems connected with tourism. Such an event, alongside the constant increase of the tourist sector, has brought the local communities to confront themselves with environmental problems, this is slowly leading to an integrated management of the whole area. The prospect of high quality eco-tourism has driven town councils in this area to promote a more sustainable use of tourism as an economic resource. By promoting general environmental initiatives, such as EMAS accreditation, ISO 14001 and Agenda 21, or specific beach accreditation, such as the Blue Flag, the Riviera del Beigua is trying to attain, amongst other objectives, a sustainable beach management.

Environmental aspects

The coast of the Riviera del Beigua is characterised by an approximately 23 km-

long coastline with a heterogeneous morphological face (beach 61%, cliff 39%), with pocket beaches between cliffs. There are mainly sandy and sand-cobble beaches (43%), and the pocket beaches are coarse sediment beaches (4%) (AA.VV., 1999). The Atlas of Italian Beaches shows a variable slope of the coast with a maximum value close to Varazze (6.9%) and a minimum (4.0%) at Arenzano, generally characterized by shoreface sandy sediment.

The geological and structural setting of the study area consists of the Savona crystalline massif, the tectonics units from the ocean floor called "Voltri Group", the crystalline outcrop of Arenzano, the sedimentary covers of the Tertiary Piedmont basin and alluvial-coastal Quaternary deposits (S.G.I., 1991). The evolution of the coastline feels the effects of the tectonic, morphologic settings and lithotypes of the area with a main sediment supply from the water courses. This coastline can be divided into five sectors for morphological and dynamical characteristics and human activities. In particular, the human activities can influence the environment and interact with the coastal dynamics (Piccazzo *et al.*, 1990; Cavallo, 1995). The study area wind/wave climate is characterised by a dominant wind coming from the southern sector. The prevailing winds have important effects on the coastal dynamics as they present the greatest geographical fetch: about 900 km from the south-western sector and 225 km from the south-eastern (Corradi *et al.*, 1994; Cortemiglia *et al.*, 2000). The orientation of the different sectors of the Riviera del Beigua conditions the developing wave motion from Southwest with marked refraction features causing a main littoral drift to the east. The presence of harbour structures, such as the Savona port and the tourist-oriented harbour of Varazze, invert the littoral drift to the west in a limited coastal sector of Albisola and Varazze (Piccazzo *et al.*, 1990; Cortemiglia *et al.*, 1999). The recent sedimentary supply data of the study area shows a coastal erosion not only of beaches but also of cliffs with the defence coastal structures (11%) and the indispensable nourishment and its monitoring with the aim to maintain the state of the beaches and their use (Fierro, 1997).

From an ecological point of view, main data available for the studied area have been collected in the regional Coastal Plan. Main benthonic biocoenoses are represented by *Posidonia oceanica* beds and *Cymodocea nodosa* meadows. Moreover, populations of Photophilic Algae, really common in the Ligurian marine environment, are well represented, while populations of Sciaphilic Algae and biocoenoses of Fine well-sorted Sands are less represented. In the whole area, with the exclusion of a little sector of well conservated rocky coastline, the natural value of the studied area is considered as medium-low, due to the degree of natural conservation of marine habitats and to the degree of anthropic alterations (Regione Liguria, 1999).

Due to the presence of *Posidonia oceanica*, one of the best-known as well as most endangered Mediterranean endemic species, two marine SCIs have been proposed in the studied area. Both this SCIs (Fondali Varazze - Albisola, 36 ha; Fondali Arenzano - Punta Invrea, 94 ha) are divided in three sub-areas where the *Posidonia oceanica* bed is still alive. Those patches are the remains of a wider bed, actually quite degraded mainly due to anthropic pressures, such as coastal settlements, nourishments, industries and illegal drawling fishery (Regione Liguria, 2002). Furthermore, it must be mentioned that the study area is within the recently stated Cetaceans' Sanctuary of the Mediterranean Sea, where the number of cetaceans is at

least twice as high as anywhere else in the Mediterranean (Ambrose, 1999).

In view of marine environmental quality in terms of pollution, as already mentioned, in 1991 the area was affected by one of the worst oil spills ever occurred in the Mediterranean, with 144.000 tons of oil spilled (ICRAM, 1999). After more than ten years, data obtained by the survey programme performed using bio-indicators revealed that, even if there are no more negative effects for the organisms in the water column, some benthonic species still show physiological alterations (Regione Liguria, 1999). Another big source of pollution in the area was caused by a chemical industry that in the past provoked an extensive pollution of heavy metals, which effects are still visible. After the closure of the industry, all the interested sites (inland, beaches and marine sediments) are now subjected to a reclamation plan. Other kinds of pollution, mainly of little extent or causing temporary alterations, have been recorded and they concern bacteriological parameters, nutrients concentration and hydrocarbons.

Finally, the inland of the Riviera del Beigua is characterised by the presence of one of the biggest regional natural areas (more than 18.000 ha) just behind the coastline: the Beigua Regional Park, also proposed as a SCIs in the NATURA 2000 framework for the presence of relevant habitats and endemic species.

Tourism development

Tourism is the main economic activity conducted in the Riviera del Beigua. The study area is mostly orientated towards domestic tourism (residents and tourists from the bordering regions) and, as such, it is a resort full of second homes. The presence of “occasional” or foreign tourists is mainly registered in peak periods (such as August), and they are distributed unequally in the six different Communes. The diversification in the tourist demand and offer renders the assessment of the carrying capacity of the entire zone extremely complex. At the same time the different tourist vocations between the Communes, calls for the elaboration of general and punctual strategies for each and every Commune.

A fundamental characteristic, which concerns the Riviera del Beigua, and tourism in the Liguria Region as a whole, is the predominance of bathing activities as a major tourist attraction in respect to all other forms of tourism. This important issue is connected to various concurrent factors:

- the particular conformation of the Ligurian territory (land scarcity);
- from a historical point of view, in the last century alongside the French Riviera, the Liguria Region was considered as an ideal tourist resort for bathing activities;
- the scarcity of initiatives with the tendency to create alternative types of tourism in respect to bathing activities (i.e. scarce development of infrastructures for tourism in the hinterland).

The main consequence is an unequal allocation of tourism resources on the coastline which generate a high concentration of all uses directly connected with tourism (recreational activities, services, structures) and indirectly connected with tourism (marinas, infrastructure, commercial activities, complementary activities) on

the beaches themselves. So, beaches are a fundamental economic resource for the Riviera del Beigua. They are heavily exploited due to the presence of activities (i.e. sports, bars, restaurants, swimming pools) which whilst contributing to the popularity of the beaches, are also the cause of their severe degradation and erosion problems.

Legislation and planning

If we are to look at the legislation concerning coastal management and protection, we must observe a great gap in our legal system and the institutional structure. The policy priorities and the legal and management tools available have been traditionally characterised by unclear objectives, fragmentation of competencies, insufficient levels of co-ordination and co-operation. So, we convene that there is not a framework law dealing specifically with coastal zones. However, there are some laws applied to coastal zones regarding some specific topics (safeguarding water quality from land-based pollution, preventing marine pollution, protecting marine areas, soil defence, planning and management) which include legal/operational definitions of coastal zone:

- National Law n. 979/1982, “Provision for sea defence”, which regulates, along with other decrees which naturally stem from it, the different forms of pollution which can affect the marine ecosystem. This law foresees that the Ministry of the Environment is the public authority responsible for the protection of the Sea and the coastal environment and, as such, is the authority competent for: the establishment and management of protected marine areas, the protection of marine biodiversity, monitoring marine waters, the promotion of safety in the marine environment, the authorisation of discharges in the sea from ships or from shore platforms, interventions for the integrated management of coastal zones, protection of the coasts, planning and co-ordination of interventions in cases of emergency due to pollution of the marine environment (Zama, 2001).
- DPR (Decreto Presidente della Repubblica) n. 470/1982 (from Water Directive 76/160/EC) concerning bathing water which foresees the necessary requirements that all bathing waters have to present. The Regions have to communicate to the local authorities which waters are suitable for bathing after having conducted the analyses before the beginning of the bathing season. The local authorities, as a consequence, have the obligation to inform the general public on the matter.
- National law n. 183/1989, “Regulations on soil defence”, containing provisions relating to coastal defence and watershed management plans (This law has prescribed that the Regions shall be the competent bodies, alongside and in negotiation with other local authorities, for the legislation concerning the protection of the land, and as such the Liguria Region has adopted the Regional law n.18/1999).
- Law n. 394/1991, “Framework law on protected areas”.
- National law 494/1993 concerning maritime domain. This is due to the fact that most of the coasts and beaches in Italy are used for recreational purposes and, as a consequence, the shores on our coasts have bathing establishments constructed on them. Any person who wants to occupy the areas along the coast, which are property of the State, with such structures, have to preventively obtain a special permit or authorisation.

- Regional law n. 13/1999 about coast defence, nourishment of the shores, protection of marine environment, maritime domain and ports, foreseen by the law 112/1998 which has conferred the Regions and other local authorities with the administrative duties which concern some coastal issues, such as monitoring the state of internal and marine waters from eutrophication and interventions for the protection of the coasts and for the nourishment of the shores. In view of such a national law, the Liguria Region adopted two decrees (Delibera Giunta Regionale n.1553/2001 and n.1176/2002) which dictate the general criteria which one must observe in planning the nourishment of the shores.
- Laws regulating the protection of marine water and marine ecosystems from anthropic pollution such as the Law n. 22/1997 concerning waste production and the law n. 152/1999 “The discipline of water discharges and the protection of water from pollution”, which has a global and systemic approach opposed to the old sectorial approach, thus regulating the protection of marine water from all forms of pollution (Beltrame, 2001).

Other important prescriptions and regulations on the coastal zones come from planning and urbanisation. National law 490/1985, modified in 1999, on cultural and natural heritage, defines the coastal zone boundary 300 mt. on land from the coastline (at sea: 12 m.n. from the baselines) and there prohibits building construction. Furthermore the regional law on planning (36/1997) foresees that the Regions will have to provide for the management and protection of coastal zones by adopting territorial plans, such as the PTR (Piano Territoriale Regionale) plan for territory prescriptions and the Territorial Coordination Plans (PTC) such as the PTCP (Piano Territoriale di Coordinamento Paesistico) plan for landscape protection and planning, the PTC of the Coasts at the regional level, the PTC of the Province at the sub-regional level and the PUC (Piano Urbanistico Comunale) plan at the municipality level. Others plans come from sectorial themes such as the Basin plans (measures for mitigation of extremes events concerning regional rivers), the plans for national and regional protected parks, the port planning schemes, the plans for local mountain communities and so on.

In this context, the Territorial Co-ordination Plan of the Coast (PTC of the Coast or PTCC) recently strengthened by the Regional Council, assumes an important reference for coastal management. This Plan was drawn up pending the definition of the Territorial Urban Planning Law (Legge Urbanistica Regionale n° 37/1997) which disciplined territorial planning instruments at a regional, provincial and municipal level, reallocating the authority of the respective administrations and attributing to the Region a basically strategic role. It represents in its highly individual configuration the first and most organic instrument of analysis and planning in the panorama of Italian coastal regions. The aims at a more general level are: protection of the coastal, terrestrial and human environment, recovery of the image of the coastal landscape, in its natural and anthropic components, increasing and diversifying the opportunities to use and enjoy the sea, reorganisation and upgrading of coastal tourism supply, creating fresh opportunities for sustainable tourism. At a concrete level, the PTCC takes into account 4 principal themes (protection of the coastline and nourishment of beaches, marinas, reclamation of the railway infrastructures and viability), some properly pertaining to the Regions (tourism, environment, transport, soil defence, etc.); others pertaining to authorities exercising powers directly delegated to the State (European Union, Property Office, Harbourmaster’s Office, Superintendence, Port Authorities, Corps of Civil

Engineers, Railways, etc). Looking at the section dedicated to beach protection and management, the plan takes into account the importance of recreational tourism on the beaches of the Liguria Region. As such, it aims to adjourn the classic methodologies of intervention with an adequate and integrated approach, combining the need of protection of coastal settlement to sea aggression (erosion of beaches, hazard events) more in keeping with environmental objectives, with the feasibility of more rational and sustainable use for tourism. Notwithstanding the variety of the issues, an effort of integration is still necessary, not only at the programme level, but also between the different instruments from the regional to the local level.

Finally, the RAMOGE Agreement must be considered. Ratified in 1981 by France, Italy and Monaco within the framework of the Barcelona Convention and the Action Plan for the Mediterranean, it concerns the protection of the coastline of these three countries, trying to prevent pollution and manage coastal development.

The project

In this frame, the present study is carried out by the University of Genoa and FEEM (Fondazione Eni Enrico Mattei) in collaboration with local authorities (Liguria Region, Provinces of Genoa and Savona and the six Communes of Riviera del Beigua). The aim is to propose guidelines for the management of the recreational beaches in this area and to supply an instrument to back up policies concerning beach planning and management.

To achieve this, the project foresees the following phases:

1. Collection of the existing data (environmental, socio-demographic, economic, tourist-oriented and political-managerial data) and eventually the integration of the missing information through surveys and sampling.

Actually the available data have come mainly from the environmental screenings carried out for ISO 14001 accreditations prepared by all the municipalities. Other general and specific data have been collected by: sectorial studies carried out by each municipality, such as impact assessments concerning ongoing projects; preliminary documents concerning planning tools, such as preliminary studies for the PTCC of Liguria, i.e. those concerning coastal erosion; finally, environmental information has been taken from existing scientific studies carried out for the University of Genoa. Moreover, a questionnaire has been drawn up and is presently being distributed to the beach users, in order to obtain further information related to people's perception about beach environment and its management.

2. Data treatment through the use of various instruments which use a synthesis analysis, such as the traditional qualitative SWOT analysis.

So as to render all data accessible, the project foresees the use of synthesis methodologies of all the information, which will be useful for a following environmental diagnosis of the area. Frequently, local authorities are in possession of a

great deal of data concerning the territory. This data originates from past studies, general or sectorial, however the use of such information is extremely difficult, as they are very much heterogeneous and fragmented. To avoid this problem it is necessary to analyse all data and then proceed to synthesise the information which will be useful in the understanding of the territory and which will be used to support all policies and regional and local planning.

The SWOT analysis is a tool which is largely used for this aim, as it can be used as a filter to reduce the information to a manageable quantity of key issues. The application of this methodology helps us to single out and highlight synthetically and efficiently all strengths, weaknesses and risks which concern a certain territory. In this way we will be able to define different scenarios, highlighting the opportunities whilst suggesting alternative managerial skills so as to mitigate the impacts, strengthen the qualities, addressing management towards a more sustainable development. The efficacy of the environmental diagnosis, accomplished through the use of this instrument, really depends upon the degree of knowledge in relation to the territory which one has considered. It also depends upon the amount and completeness of the data, however this method could have the tendency to oversimplify the situation, thus encountering in a great limit. The great flexibility of such a tool, and the possibility of its use at different levels (it can be applied to the territory in general or to a specific environment/sector), renders the SWOT analysis a potential tool in the process of territorial diagnosis and planning.

This project has the aim to apply the SWOT analysis at a general level, with regards to the principal environmental problems which concern the area. In any case we shall analyse all the environmental sectors *strictu sensu*, but we shall also be analysing some sectors strictly related to the concept of integrated management, such as the socio-economic and the political- management sector.

3. Formulation of a set of indicators chosen and adjusted from a selected bibliography and integrated through the elaboration of new indicators which are created specifically for the considered area.

The use of indicators as a tool to give scientific information to decision-makers and managers in a useable and succinct form is commonly accepted. A lot of environmental, socio-economic and tourist-oriented indicators have been proposed to help the management of coastal areas, and among them something has been proposed specifically for beaches. However, often standard indicators do not fit in well with local peculiarity and a wrong use of an indicator could bring to a wrong analysis. In this context, the project aims to develop a set of specific indicators for the evaluation of the beach status, using indicators mainly selected from the ones proposed in literature, but paying a specific attention to local problems and issues. The proposed and selected indicators will have to cover the environmental aspects of the beach ecosystem (from a sedimentological, biological, physical and chemical point of view), and those with an anthropic origin (presence of anthropogenic risks; cultural and landscape heritage, environmental conservation, pollution, effects of anthropic activities socio-economic values, etc.). In order to make their use easier, indicators should be selected on the basis of available information in the area. The use of this set of interdisciplinary indicators,

created specifically for the recreational beaches of this area, should give a scientific but synthetic information, that should be used both for an environmental assessment and for helping management policies.

4. Use this set of indicators for the assessment of the state of the beaches, for example through a quantitative and territorial SWOT analysis, for the beaches used for bathing (quantitative analysis performed using the selected set of indicators) adjusted and tested on the local reality.

The set of indicators implemented in the previous phase of the project will be used in order to carry out an environmental assessment of the quality of the studied beaches. To achieve this target the project proposes, amongst others tools, the use of a quantitative SWOT analysis. Although the SWOT analysis is traditionally used for territorial studies with a qualitative approach, as already mentioned, some authors have proposed a quantitative approach, based on quantitative indicators and on the use of quantitative matrixes. This kind of SWOT analysis, which allows obtaining numerical results, is based on the use of a set of indicators specific for the studied environment. Taking into account recreational beaches the quantitative methodology and the set of indicators have been implemented by an interdisciplinary team of experts and this tool has been applied only for beaches of international interest, mainly situated in Caribbean areas (Martinez, 2000; Sano', 2002). However, those beaches are deeply different from the ones in the Riviera del Beigua, both for the morphology and for the anthropic pressure, thus making necessary the adaptation of the methodology to the local situation. In order to obtain this, the set of indicators implemented in those areas will be integrated with the specific set of indicators implemented in the previous phase of the project.

The use of a quantitative SWOT analysis in the Riviera del Beigua should be an innovative tool, able to assure an analytical approach to the assessment of the quality of the recreational beaches in that area. This tool could both help one recognise the main environmental impacts and suggest opportunities for the improvement of beach management, from a sustainable point of view. Furthermore, one of the main advantages of the use of a quantitative SWOT analysis is the numerical evaluation of strengths, weaknesses and threats. On one hand, comparing data obtained for aspects (geological, biological, chemical, socio-economic, tourist-oriented, etc.) it is possible to prioritise problems for each studied beach, helping the management decision process. On the other hand, the numerical quantification allows evaluating the effects of such a management in time: applying the analysis periodically it is possible to recognise management faults and to intervene to correct them.

Conclusions

The final aim of the present project is to provide a tool to back up policies for beach planning and management. The need of this tool is strongly request by local authorities of the Riviera del Beigua, currently involved into several projects aimed to improve coastal management toward sustainable policies.

In the first phase of the study the six municipalities involved have actively

collaborated in collecting the existing data. In the next phases of the project, data collected will be used to create a set of specific indicators to provide a synthesis methodology for the assessment of beach environmental state and quality.

The output of the project will be made available to the local authorities and then divulged to stakeholder and end-users through public conferences and publications.

References

- AA.VV. (1999), “*Atlante delle spiagge italiane*” – Giuliano Fierro editore. SELCA, 108 Tavv.
- Ambrose, P. (1999), "Cetacean sanctuary in the Mediterranean sea", *Marine Pollut. Bull.* 38 (9), 748-751.
- Beltrame, S. (2001), “Sversamenti in mare di rifiuti solidi o liquidi: luci ed ombre ai confini tra la normativa sulle acque e sui rifiuti”, *Rivista Giuridica dell’Ambiente*, 223-241.
- Cavallo, C. (1995), “Dinamica e tendenza evolutiva del litorale compreso tra Varazze e Genova – Voltri (Liguria occidentale)”, *Phd thesis*, Trieste, 147 p.
- Corradi N., Piccazzo M., Tucci S., Ferrari M., Cavallo C. and Rosso F. (1994), “Evoluzione delle spiagge nel tratto di costa compreso tra Varazze e Voltri (Liguria occidentale)”, *Il Quaternario*, 7(1), 515-522.
- Cortemiglia G.C., Firpo M. and Piccazzo M. (2000), “Dinamica e caratteri evolutivi della spiaggia di Celle Ligure (Liguria occidentale, Italia)”, *Atti Ass. It. Oceanol. Limnol.* (AIOL), 13(2), 411-429.
- Cortemiglia G.C., Firpo M., Piccazzo M. and Poggi F. (1999), “Dinamica e caratteri evolutivi della spiaggia di Varazze (Liguria occidentale, Italia)”, *Atti Ass. It. Oceanol. Limnol.* (AIOL), 13(1), 347-362.
- Defeo, O. and De Alava, A. (1995), "Effects of human activities on long-term trends in sandy beach populations: the wedge clam *Donax hanleyanus* in Uruguay". *Marine Ecology Progress Series*, 123, 73-82.
- EC (2000), “*Towards quality coastal tourism. Integrated quality management of coastal tourism destinations*”, Summary, Brussels, 14 p.
- Fierro G. (1997), “L’erosione dei litorali nel contesto della gestione integrata delle aree costiere.” *L’Universo*, 5, 630-651.
- Henoque, Y. and Denis, J. (2001), “*Steps and Tools Towards Integrated Coastal Area management*”, IOC Manuals and Guides No 42, UNESCO, Paris, 64 p.
- ICRAM (1999), "*Sinistro Haven, interventi di bonifica*", Technical Report, 17 p.

- James, R.J. (2000), "From beaches to beach environments: linking the ecology, human-use and management of beaches in Australia", *Ocean & Coastal Management*, 43, 495-514.
- Lercari, D., and Defeo, O. (1999), "Effects of Freshwater Discharge in Sandy Beach Populations: The Mole Crab *Emerita brasiliensis* in Uruguay", *Estuarine, Coastal and Shelf Science*, 49(4),457-468.
- Martinez, J. (2000), "*Auditorias ambientales*", Universidad de Las Palmas de Gran Canaria, Las Palmas de G.C., 211 p.
- Micaleff, A. and Williams, A. (2002), "Theoretical strategy considerations for beach management", *Ocean & Coastal Management*, 45, 261-275.
- Piccazzo M., Firpo M, Corradi N., Campi F. (1990), "Evoluzione recente dei litorali Liguri: Le spiagge di Albissola Marina e di Albisola superiore (Savona)". *Atti 9° Congresso Ass. It. Oceanol. Limnol. (AIOL)*, 287-301.
- REGIONE LIGURIA (1999), "*Piano Territoriale di Coordinamento della Costa*", 4(1-5).
- REGIONE LIGURIA (2002), "*Biodiversità in Liguria: la rete Natura 2000*", Genova, 299 p.
- Sano', M. (2002), "Analisi SWOT Territoriale Quantitativa applicata alle spiagge: uno strumento per la gestione integrata delle risorse costiere", thesis, Genova, 261 p.
- Schoeman, D.S., McLachlan, A. and Dugan, J.E. (2000), "Lessons from a Disturbance Experiment in the Intertidal Zone of an Exposed Sandy Beach", *Estuarine, Coastal and Shelf Science*, 50(6), 869-884.
- S.G.I. (1991), "Alpi Liguri", Guide Geologiche Regionali. BE-MA, 295 p.
- UNEP/PAP/RAC (2003), "*Guide to Good Practice in Tourism Carrying Capacity Assessment*", Priority Actions Programme Regional Activity Centre, Split, 44 p.
- Zama, A. (2001), "La protezione del suolo e la disciplina dell'ambiente idrico", *Manuale di Diritto Ambientale*, CEDAM, 350-356.

NOTE DI LAVORO DELLA FONDAZIONE ENI ENRICO MATTEI

Fondazione Eni Enrico Mattei Working Paper Series

Our Note di Lavoro are available on the Internet at the following addresses:

<http://www.feem.it/Feem/Pub/Publications/WPapers/default.html>

<http://www.ssrn.com/link/feem.html>

NOTE DI LAVORO PUBLISHED IN 2003

PRIV	1.2003	<i>Gabriella CHIESA and Giovanna NICODANO: <u>Privatization and Financial Market Development: Theoretical Issues</u></i>
PRIV	2.2003	<i>Ibolya SCHINDELE: <u>Theory of Privatization in Eastern Europe: Literature Review</u></i>
PRIV	3.2003	<i>Wietze LISE, Claudia KEMFERT and Richard S.J. TOL: <u>Strategic Action in the Liberalised German Electricity Market</u></i>
CLIM	4.2003	<i>Laura MARSILIANI and Thomas I. RENSTRÖM: <u>Environmental Policy and Capital Movements: The Role of Government Commitment</u></i>
KNOW	5.2003	<i>Reyer GERLAGH: <u>Induced Technological Change under Technological Competition</u></i>
ETA	6.2003	<i>Efrem CASTELNUOVO: <u>Squeezing the Interest Rate Smoothing Weight with a Hybrid Expectations Model</u></i>
SIEV	7.2003	<i>Anna ALBERINI, Alberto LONGO, Stefania TONIN, Francesco TROMBETTA and Margherita TURVANI: <u>The Role of Liability, Regulation and Economic Incentives in Brownfield Remediation and Redevelopment: Evidence from Surveys of Developers</u></i>
NRM	8.2003	<i>Elissaios POPYRAKIS and Reyner GERLAGH: <u>Natural Resources: A Blessing or a Curse?</u></i>
CLIM	9.2003	<i>A. CAPARRÓS, J.-C. PEREAU and T. TAZDAÏT: <u>North-South Climate Change Negotiations: a Sequential Game with Asymmetric Information</u></i>
KNOW	10.2003	<i>Giorgio BRUNELLO and Daniele CHECCHI: <u>School Quality and Family Background in Italy</u></i>
CLIM	11.2003	<i>Efrem CASTELNUOVO and Marzio GALEOTTI: <u>Learning By Doing vs Learning By Researching in a Model of Climate Change Policy Analysis</u></i>
KNOW	12.2003	<i>Carole MAIGNAN, Gianmarco OTTAVIANO and Dino PINELLI (eds.): <u>Economic Growth, Innovation, Cultural Diversity: What are we all talking about? A critical survey of the state-of-the-art</u></i>
KNOW	13.2003	<i>Carole MAIGNAN, Gianmarco OTTAVIANO, Dino PINELLI and Francesco RULLANI (lix): <u>Bio-Ecological Diversity vs. Socio-Economic Diversity. A Comparison of Existing Measures</u></i>
KNOW	14.2003	<i>Maddy JANSSENS and Chris STEYAERT (lix): <u>Theories of Diversity within Organisation Studies: Debates and Future Trajectories</u></i>
KNOW	15.2003	<i>Tuzin BAYCAN LEVENT, Enno MASUREL and Peter NIJKAMP (lix): <u>Diversity in Entrepreneurship: Ethnic and Female Roles in Urban Economic Life</u></i>
KNOW	16.2003	<i>Alexandra BITUSIKOVA (lix): <u>Post-Communist City on its Way from Grey to Colourful: The Case Study from Slovakia</u></i>
KNOW	17.2003	<i>Billy E. VAUGHN and Katarina MLEKOV (lix): <u>A Stage Model of Developing an Inclusive Community</u></i>
KNOW	18.2003	<i>Selma van LONDEN and Arie de RUIJTER (lix): <u>Managing Diversity in a Glocalizing World</u></i>
Coalition		
Theory	19.2003	<i>Sergio CURRARINI: <u>On the Stability of Hierarchies in Games with Externalities</u></i>
Network		
PRIV	20.2003	<i>Giacomo CALZOLARI and Alessandro PAVAN (lx): <u>Monopoly with Resale</u></i>
PRIV	21.2003	<i>Claudio MEZZETTI (lx): <u>Auction Design with Interdependent Valuations: The Generalized Revelation Principle, Efficiency, Full Surplus Extraction and Information Acquisition</u></i>
PRIV	22.2003	<i>Marco LiCalzi and Alessandro PAVAN (lx): <u>Tilting the Supply Schedule to Enhance Competition in Uniform-Price Auctions</u></i>
PRIV	23.2003	<i>David ETTINGER (lx): <u>Bidding among Friends and Enemies</u></i>
PRIV	24.2003	<i>Hannu VARTIAINEN (lx): <u>Auction Design without Commitment</u></i>
PRIV	25.2003	<i>Matti KELOHARJU, Kjell G. NYBORG and Kristian RYDQVIST (lx): <u>Strategic Behavior and Underpricing in Uniform Price Auctions: Evidence from Finnish Treasury Auctions</u></i>
PRIV	26.2003	<i>Christine A. PARLOUR and Uday RAJAN (lx): <u>Rationing in IPOs</u></i>
PRIV	27.2003	<i>Kjell G. NYBORG and Ilya A. STREBULAIEV (lx): <u>Multiple Unit Auctions and Short Squeezes</u></i>
PRIV	28.2003	<i>Anders LUNANDER and Jan-Eric NILSSON (lx): <u>Taking the Lab to the Field: Experimental Tests of Alternative Mechanisms to Procure Multiple Contracts</u></i>
PRIV	29.2003	<i>TangaMcDANIEL and Karsten NEUHOFF (lx): <u>Use of Long-term Auctions for Network Investment</u></i>
PRIV	30.2003	<i>Emiel MAASLAND and Sander ONDERSTAL (lx): <u>Auctions with Financial Externalities</u></i>
ETA	31.2003	<i>Michael FINUS and Bianca RUNDSHAGEN: <u>A Non-cooperative Foundation of Core-Stability in Positive Externality NTU-Coalition Games</u></i>
KNOW	32.2003	<i>Michele MORETTO: <u>Competition and Irreversible Investments under Uncertainty</u></i>
PRIV	33.2003	<i>Philippe QUIRION: <u>Relative Quotas: Correct Answer to Uncertainty or Case of Regulatory Capture?</u></i>
KNOW	34.2003	<i>Giuseppe MEDA, Claudio PIGA and Donald SIEGEL: <u>On the Relationship between R&D and Productivity: A Treatment Effect Analysis</u></i>
ETA	35.2003	<i>Alessandra DEL BOCA, Marzio GALEOTTI and Paola ROTA: <u>Non-convexities in the Adjustment of Different Capital Inputs: A Firm-level Investigation</u></i>

GG	36.2003	<i>Matthieu GLACHANT</i> : <u>Voluntary Agreements under Endogenous Legislative Threats</u>
PRIV	37.2003	<i>Narjess BOUBAKRI, Jean-Claude COSSET and Omrane GUEDHAMI</i> : <u>Postprivatization Corporate Governance: the Role of Ownership Structure and Investor Protection</u>
CLIM	38.2003	<i>Rolf GOLOMBEK and Michael HOEL</i> : <u>Climate Policy under Technology Spillovers</u>
KNOW	39.2003	<i>Slim BEN YOUSSEF</i> : <u>Transboundary Pollution, R&D Spillovers and International Trade</u>
CTN	40.2003	<i>Carlo CARRARO and Carmen MARCHIORI</i> : <u>Endogenous Strategic Issue Linkage in International Negotiations</u>
KNOW	41.2003	<i>Sonia OREFFICE</i> : <u>Abortion and Female Power in the Household: Evidence from Labor Supply</u>
KNOW	42.2003	<i>Timo GOESCHL and Timothy SWANSON</i> : <u>On Biology and Technology: The Economics of Managing Biotechnologies</u>
ETA	43.2003	<i>Giorgio Busetti and Matteo MANERA</i> : <u>STAR-GARCH Models for Stock Market Interactions in the Pacific Basin Region, Japan and US</u>
CLIM	44.2003	<i>Katrin MILLOCK and Céline NAUGES</i> : <u>The French Tax on Air Pollution: Some Preliminary Results on its Effectiveness</u>
PRIV	45.2003	<i>Bernardo BORTOLOTTI and Paolo PINOTTI</i> : <u>The Political Economy of Privatization</u>
SIEV	46.2003	<i>Elbert DIJKGRAAF and Herman R.J. VOLLEBERGH</i> : <u>Burn or Bury? A Social Cost Comparison of Final Waste Disposal Methods</u>
ETA	47.2003	<i>Jens HORBACH</i> : <u>Employment and Innovations in the Environmental Sector: Determinants and Econometrical Results for Germany</u>
CLIM	48.2003	<i>Lori SNYDER, Nolan MILLER and Robert STAVINS</i> : <u>The Effects of Environmental Regulation on Technology Diffusion: The Case of Chlorine Manufacturing</u>
CLIM	49.2003	<i>Lori SNYDER, Robert STAVINS and Alexander F. WAGNER</i> : <u>Private Options to Use Public Goods. Exploiting Revealed Preferences to Estimate Environmental Benefits</u>
CTN	50.2003	<i>László Á. KÓCZY and Luc LAUWERS</i> (Ixi): <u>The Minimal Dominant Set is a Non-Empty Core-Extension</u>
CTN	51.2003	<i>Matthew O. JACKSON</i> (Ixi): <u>Allocation Rules for Network Games</u>
CTN	52.2003	<i>Ana MAULEON and Vincent VANNETELBOSCH</i> (Ixi): <u>Farsightedness and Cautiousness in Coalition Formation</u>
CTN	53.2003	<i>Fernando VEGA-REDONDO</i> (Ixi): <u>Building Up Social Capital in a Changing World: a network approach</u>
CTN	54.2003	<i>Matthew HAAG and Roger LAGUNOFF</i> (Ixi): <u>On the Size and Structure of Group Cooperation</u>
CTN	55.2003	<i>Tajji FURUSAWA and Hideo KONISHI</i> (Ixi): <u>Free Trade Networks</u>
CTN	56.2003	<i>Halis Murat YILDIZ</i> (Ixi): <u>National Versus International Mergers and Trade Liberalization</u>
CTN	57.2003	<i>Santiago RUBIO and Alistair ULPH</i> (Ixi): <u>An Infinite-Horizon Model of Dynamic Membership of International Environmental Agreements</u>
KNOW	58.2003	<i>Carole MAIGNAN, Dino PINELLI and Gianmarco I.P. OTTAVIANO</i> : <u>ICT, Clusters and Regional Cohesion: A Summary of Theoretical and Empirical Research</u>
KNOW	59.2003	<i>Giorgio BELLETTINI and Gianmarco I.P. OTTAVIANO</i> : <u>Special Interests and Technological Change</u>
ETA	60.2003	<i>Ronnie SCHÖB</i> : <u>The Double Dividend Hypothesis of Environmental Taxes: A Survey</u>
CLIM	61.2003	<i>Michael FINUS, Ekko van IERLAND and Robert DELLINK</i> : <u>Stability of Climate Coalitions in a Cartel Formation Game</u>
GG	62.2003	<i>Michael FINUS and Bianca RUNDSHAGEN</i> : <u>How the Rules of Coalition Formation Affect Stability of International Environmental Agreements</u>
SIEV	63.2003	<i>Alberto PETRUCCI</i> : <u>Taxing Land Rent in an Open Economy</u>
CLIM	64.2003	<i>Joseph E. ALDY, Scott BARRETT and Robert N. STAVINS</i> : <u>Thirteen Plus One: A Comparison of Global Climate Policy Architectures</u>
SIEV	65.2003	<i>Edi DEFRANCESCO</i> : <u>The Beginning of Organic Fish Farming in Italy</u>
SIEV	66.2003	<i>Klaus CONRAD</i> : <u>Price Competition and Product Differentiation when Consumers Care for the Environment</u>
SIEV	67.2003	<i>Paulo A.L.D. NUNES, Luca ROSSETTO, Arianne DE BLAEIJ</i> : <u>Monetary Value Assessment of Clam Fishing Management Practices in the Venice Lagoon: Results from a Stated Choice Exercise</u>
CLIM	68.2003	<i>ZhongXiang ZHANG</i> : <u>Open Trade with the U.S. Without Compromising Canada's Ability to Comply with its Kyoto Target</u>
KNOW	69.2003	<i>David FRANTZ</i> (Iix): <u>Lorenzo Market between Diversity and Mutation</u>
KNOW	70.2003	<i>Ercole SORI</i> (Iix): <u>Mapping Diversity in Social History</u>
KNOW	71.2003	<i>Ljiljana DERU SIMIC</i> (Ixi): <u>What is Specific about Art/Cultural Projects?</u>
KNOW	72.2003	<i>Natalya V. TARANOVA</i> (Ixi): <u>The Role of the City in Fostering Intergroup Communication in a Multicultural Environment: Saint-Petersburg's Case</u>
KNOW	73.2003	<i>Kristine CRANE</i> (Ixi): <u>The City as an Arena for the Expression of Multiple Identities in the Age of Globalisation and Migration</u>
KNOW	74.2003	<i>Kazuma MATOBA</i> (Ixi): <u>Glocal Dialogue- Transformation through Transcultural Communication</u>
KNOW	75.2003	<i>Catarina REIS OLIVEIRA</i> (Ixi): <u>Immigrants' Entrepreneurial Opportunities: The Case of the Chinese in Portugal</u>
KNOW	76.2003	<i>Sandra WALLMAN</i> (Ixi): <u>The Diversity of Diversity - towards a typology of urban systems</u>
KNOW	77.2003	<i>Richard PEARCE</i> (Ixi): <u>A Biologist's View of Individual Cultural Identity for the Study of Cities</u>
KNOW	78.2003	<i>Vincent MERK</i> (Ixi): <u>Communication Across Cultures: from Cultural Awareness to Reconciliation of the Dilemmas</u>
KNOW	79.2003	<i>Giorgio BELLETTINI, Carlotta BERTI CERONI and Gianmarco I.P. OTTAVIANO</i> : <u>Child Labor and Resistance to Change</u>
ETA	80.2003	<i>Michele MORETTO, Paolo M. PANTEGHINI and Carlo SCARPA</i> : <u>Investment Size and Firm's Value under Profit Sharing Regulation</u>

IEM	81.2003	<i>Alessandro LANZA, Matteo MANERA and Massimo GIOVANNINI: <u>Oil and Product Dynamics in International Petroleum Markets</u></i>
CLIM	82.2003	<i>Y. Hossein FARZIN and Jinhua ZHAO: <u>Pollution Abatement Investment When Firms Lobby Against Environmental Regulation</u></i>
CLIM	83.2003	<i>Giuseppe DI VITA: <u>Is the Discount Rate Relevant in Explaining the Environmental Kuznets Curve?</u></i>
CLIM	84.2003	<i>Reyer GERLAGH and Wietze LISE: <u>Induced Technological Change Under Carbon Taxes</u></i>
NRM	85.2003	<i>Rinaldo BRAU, Alessandro LANZA and Francesco PIGLIARU: <u>How Fast are the Tourism Countries Growing? The cross-country evidence</u></i>
KNOW	86.2003	<i>Elena BELLINI, Gianmarco I.P. OTTAVIANO and Dino PINELLI: <u>The ICT Revolution: opportunities and risks for the Mezzogiorno</u></i>
SIEV	87.2003	<i>Lucas BRETSCGHER and Sjak SMULDERS: <u>Sustainability and Substitution of Exhaustible Natural Resources. How resource prices affect long-term R&D investments</u></i>
CLIM	88.2003	<i>Johan EYCKMANS and Michael FINUS: <u>New Roads to International Environmental Agreements: The Case of Global Warming</u></i>
CLIM	89.2003	<i>Marzio GALEOTTI: <u>Economic Development and Environmental Protection</u></i>
CLIM	90.2003	<i>Marzio GALEOTTI: <u>Environment and Economic Growth: Is Technical Change the Key to Decoupling?</u></i>
CLIM	91.2003	<i>Marzio GALEOTTI and Barbara BUCHNER: <u>Climate Policy and Economic Growth in Developing Countries</u></i>
IEM	92.2003	<i>A. MARKANDYA, A. GOLUB and E. STRUKOVA: <u>The Influence of Climate Change Considerations on Energy Policy: The Case of Russia</u></i>
ETA	93.2003	<i>Andrea BELTRATTI: <u>Socially Responsible Investment in General Equilibrium</u></i>
CTN	94.2003	<i>Parkash CHANDER: <u>The γ-Core and Coalition Formation</u></i>
IEM	95.2003	<i>Matteo MANERA and Angelo MARZULLO: <u>Modelling the Load Curve of Aggregate Electricity Consumption Using Principal Components</u></i>
IEM	96.2003	<i>Alessandro LANZA, Matteo MANERA, Margherita GRASSO and Massimo GIOVANNINI: <u>Long-run Models of Oil Stock Prices</u></i>
CTN	97.2003	<i>Steven J. BRAMS, Michael A. JONES, and D. Marc KILGOUR: <u>Forming Stable Coalitions: The Process Matters</u></i>
KNOW	98.2003	<i>John CROWLEY, Marie-Cecile NAVES (Ixxiii): <u>Anti-Racist Policies in France. From Ideological and Historical Schemes to Socio-Political Realities</u></i>
KNOW	99.2003	<i>Richard THOMPSON FORD (Ixxiii): <u>Cultural Rights and Civic Virtue</u></i>
KNOW	100.2003	<i>Alaknanda PATEL (Ixxiii): <u>Cultural Diversity and Conflict in Multicultural Cities</u></i>
KNOW	101.2003	<i>David MAY (Ixxiii): <u>The Struggle of Becoming Established in a Deprived Inner-City Neighbourhood</u></i>
KNOW	102.2003	<i>Sébastien ARCAND, Danielle JUTEAU, Sirma BILGE, and Francine LEMIRE (Ixxiii) : <u>Municipal Reform on the Island of Montreal: Tensions Between Two Majority Groups in a Multicultural City</u></i>
CLIM	103.2003	<i>Barbara BUCHNER and Carlo CARRARO: <u>China and the Evolution of the Present Climate Regime</u></i>
CLIM	104.2003	<i>Barbara BUCHNER and Carlo CARRARO: <u>Emissions Trading Regimes and Incentives to Participate in International Climate Agreements</u></i>
CLIM	105.2003	<i>Anil MARKANDYA and Dirk T.G. RÜBBELKE: <u>Ancillary Benefits of Climate Policy</u></i>
NRM	106.2003	<i>Anne Sophie CRÉPIN (Ixiv): <u>Management Challenges for Multiple-Species Boreal Forests</u></i>
NRM	107.2003	<i>Anne Sophie CRÉPIN (Ixiv): <u>Threshold Effects in Coral Reef Fisheries</u></i>
SIEV	108.2003	<i>Sara ANIYAR (Ixiv): <u>Estimating the Value of Oil Capital in a Small Open Economy: The Venezuela's Example</u></i>
SIEV	109.2003	<i>Kenneth ARROW, Partha DASGUPTA and Karl-Göran MÄLER(Ixiv): <u>Evaluating Projects and Assessing Sustainable Development in Imperfect Economies</u></i>
NRM	110.2003	<i>Anastasios XEPAPADEAS and Catarina ROSETA-PALMA(Ixiv): <u>Instabilities and Robust Control in Fisheries</u></i>
NRM	111.2003	<i>Charles PERRINGS and Brian WALKER (Ixiv): <u>Conservation and Optimal Use of Rangelands</u></i>
ETA	112.2003	<i>Jack GOODY (Ixiv): <u>Globalisation, Population and Ecology</u></i>
CTN	113.2003	<i>Carlo CARRARO, Carmen MARCHIORI and Sonia OREFFICE: <u>Endogenous Minimum Participation in International Environmental Treaties</u></i>
CTN	114.2003	<i>Guillaume HAERINGER and Myrna WOODERS: <u>Decentralized Job Matching</u></i>
CTN	115.2003	<i>Hideo KONISHI and M. Utku UNVER: <u>Credible Group Stability in Multi-Partner Matching Problems</u></i>
CTN	116.2003	<i>Somdeb LAHIRI: <u>Stable Matchings for the Room-Mates Problem</u></i>
CTN	117.2003	<i>Somdeb LAHIRI: <u>Stable Matchings for a Generalized Marriage Problem</u></i>
CTN	118.2003	<i>Marita LAUKKANEN: <u>Transboundary Fisheries Management under Implementation Uncertainty</u></i>
CTN	119.2003	<i>Edward CARTWRIGHT and Myrna WOODERS: <u>Social Conformity and Bounded Rationality in Arbitrary Games with Incomplete Information: Some First Results</u></i>
CTN	120.2003	<i>Gianluigi VERNASCA: <u>Dynamic Price Competition with Price Adjustment Costs and Product Differentiation</u></i>
CTN	121.2003	<i>Myrna WOODERS, Edward CARTWRIGHT and Reinhard SELTEN: <u>Social Conformity in Games with Many Players</u></i>
CTN	122.2003	<i>Edward CARTWRIGHT and Myrna WOODERS: <u>On Equilibrium in Pure Strategies in Games with Many Players</u></i>
CTN	123.2003	<i>Edward CARTWRIGHT and Myrna WOODERS: <u>Conformity and Bounded Rationality in Games with Many Players</u></i>
	1000	Carlo CARRARO, Alessandro LANZA and Valeria PAPPONETTI: <u>One Thousand Working Papers</u>

NOTE DI LAVORO PUBLISHED IN 2004

IEM	1.2004	<i>Anil MARKANDYA, Suzette PEDROSO and Alexander GOLUB: <u>Empirical Analysis of National Income and So2 Emissions in Selected European Countries</u></i>
ETA	2.2004	<i>Masahisa FUJITA and Shlomo WEBER: <u>Strategic Immigration Policies and Welfare in Heterogeneous Countries</u></i>
PRA	3.2004	<i>Adolfo DI CARLUCCIO, Giovanni FERRI, Cecilia FRALE and Ottavio RICCHI: <u>Do Privatizations Boost Household Shareholding? Evidence from Italy</u></i>
ETA	4.2004	<i>Victor GINSBURGH and Shlomo WEBER: <u>Languages Disenfranchisement in the European Union</u></i>
ETA	5.2004	<i>Romano PIRAS: <u>Growth, Congestion of Public Goods, and Second-Best Optimal Policy</u></i>
CCMP	6.2004	<i>Herman R.J. VOLLEBERGH: <u>Lessons from the Polder: Is Dutch CO2-Taxation Optimal</u></i>
PRA	7.2004	<i>Sandro BRUSCO, Giuseppe LOPOMO and S. VISWANATHAN (lxv): <u>Merger Mechanisms</u></i>
PRA	8.2004	<i>Wolfgang AUSSENEGG, Pegaret PICHLER and Alex STOMPER (lxv): <u>IPO Pricing with Bookbuilding, and a When-Issued Market</u></i>
PRA	9.2004	<i>Pegaret PICHLER and Alex STOMPER (lxv): <u>Primary Market Design: Direct Mechanisms and Markets</u></i>
PRA	10.2004	<i>Florian ENGLMAIER, Pablo GUILLEN, Loreto LLORENTE, Sander ONDERSTAL and Rupert SAUSGRUBER (lxv): <u>The Chopstick Auction: A Study of the Exposure Problem in Multi-Unit Auctions</u></i>
PRA	11.2004	<i>Bjarne BRENDSTRUP and Harry J. PAARSCH (lxv): <u>Nonparametric Identification and Estimation of Multi-Unit, Sequential, Oral, Ascending-Price Auctions With Asymmetric Bidders</u></i>
PRA	12.2004	<i>Ohad KADAN (lxv): <u>Equilibrium in the Two Player, k-Double Auction with Affiliated Private Values</u></i>
PRA	13.2004	<i>Maarten C.W. JANSSEN (lxv): <u>Auctions as Coordination Devices</u></i>
PRA	14.2004	<i>Gadi FIBICH, Arieh GAVIOUS and Aner SELA (lxv): <u>All-Pay Auctions with Weakly Risk-Averse Buyers</u></i>
PRA	15.2004	<i>Orly SADE, Charles SCHNITZLEIN and Jaime F. ZENDER (lxv): <u>Competition and Cooperation in Divisible Good Auctions: An Experimental Examination</u></i>
PRA	16.2004	<i>Marta STRYSZOWSKA (lxv): <u>Late and Multiple Bidding in Competing Second Price Internet Auctions</u></i>
CCMP	17.2004	<i>Slim Ben YOUSSEF: <u>R&D in Cleaner Technology and International Trade</u></i>
NRM	18.2004	<i>Angelo ANTOCI, Simone BORGHESI and Paolo RUSSU (lxvi): <u>Biodiversity and Economic Growth: Stabilization Versus Preservation of the Ecological Dynamics</u></i>
SIEV	19.2004	<i>Anna ALBERINI, Paolo ROSATO, Alberto LONGO and Valentina ZANATTA: <u>Information and Willingness to Pay in a Contingent Valuation Study: The Value of S. Erasmo in the Lagoon of Venice</u></i>
NRM	20.2004	<i>Guido CANDELA and Roberto CELLINI (lxvii): <u>Investment in Tourism Market: A Dynamic Model of Differentiated Oligopoly</u></i>
NRM	21.2004	<i>Jacqueline M. HAMILTON (lxvii): <u>Climate and the Destination Choice of German Tourists</u></i>
NRM	22.2004	<i>Javier Rey-MAQUIEIRA PALMER, Javier LOZANO IBÁÑEZ and Carlos Mario GÓMEZ GÓMEZ (lxvii): <u>Land, Environmental Externalities and Tourism Development</u></i>
NRM	23.2004	<i>Pius ODUNGA and Henk FOLMER (lxvii): <u>Profiling Tourists for Balanced Utilization of Tourism-Based Resources in Kenya</u></i>
NRM	24.2004	<i>Jean-Jacques NOWAK, Mondher SAHLI and Pasquale M. SGRO (lxvii): <u>Tourism, Trade and Domestic Welfare</u></i>
NRM	25.2004	<i>Riaz SHAREEF (lxvii): <u>Country Risk Ratings of Small Island Tourism Economies</u></i>
NRM	26.2004	<i>Juan Luis EUGENIO-MARTÍN, Noelia MARTÍN MORALES and Riccardo SCARPA (lxvii): <u>Tourism and Economic Growth in Latin American Countries: A Panel Data Approach</u></i>
NRM	27.2004	<i>Raúl Hernández MARTÍN (lxvii): <u>Impact of Tourism Consumption on GDP. The Role of Imports</u></i>
CSRM	28.2004	<i>Nicoletta FERRO: <u>Cross-Country Ethical Dilemmas in Business: A Descriptive Framework</u></i>
NRM	29.2004	<i>Marian WEBER (lxvi): <u>Assessing the Effectiveness of Tradable Landuse Rights for Biodiversity Conservation: an Application to Canada's Boreal Mixedwood Forest</u></i>
NRM	30.2004	<i>Trond BJORN DAL, Phoebe KOUNDOURI and Sean PASCOE (lxvi): <u>Output Substitution in Multi-Species Trawl Fisheries: Implications for Quota Setting</u></i>
CCMP	31.2004	<i>Marzio GALEOTTI, Alessandra GORIA, Paolo MOMBRINI and Evi SPANTIDAKI: <u>Weather Impacts on Natural, Social and Economic Systems (WISE) Part I: Sectoral Analysis of Climate Impacts in Italy</u></i>
CCMP	32.2004	<i>Marzio GALEOTTI, Alessandra GORIA, Paolo MOMBRINI and Evi SPANTIDAKI: <u>Weather Impacts on Natural, Social and Economic Systems (WISE) Part II: Individual Perception of Climate Extremes in Italy</u></i>
CTN	33.2004	<i>Wilson PEREZ: <u>Divide and Conquer: Noisy Communication in Networks, Power, and Wealth Distribution</u></i>
KTHC	34.2004	<i>Gianmarco I.P. OTTAVIANO and Giovanni PERI (lxviii): <u>The Economic Value of Cultural Diversity: Evidence from US Cities</u></i>
KTHC	35.2004	<i>Linda CHAIB (lxviii): <u>Immigration and Local Urban Participatory Democracy: A Boston-Paris Comparison</u></i>
KTHC	36.2004	<i>Franca ECKERT COEN and Claudio ROSSI (lxviii): <u>Foreigners, Immigrants, Host Cities: The Policies of Multi-Ethnicity in Rome. Reading Governance in a Local Context</u></i>
KTHC	37.2004	<i>Kristine CRANE (lxviii): <u>Governing Migration: Immigrant Groups' Strategies in Three Italian Cities – Rome, Naples and Bari</u></i>
KTHC	38.2004	<i>Kiflemariam HAMDE (lxviii): <u>Mind in Africa, Body in Europe: The Struggle for Maintaining and Transforming Cultural Identity - A Note from the Experience of Eritrean Immigrants in Stockholm</u></i>
ETA	39.2004	<i>Alberto CAVALIERE: <u>Price Competition with Information Disparities in a Vertically Differentiated Duopoly</u></i>
PRA	40.2004	<i>Andrea BIGANO and Stef PROOST: <u>The Opening of the European Electricity Market and Environmental Policy: Does the Degree of Competition Matter?</u></i>
CCMP	41.2004	<i>Micheal FINUS (lxix): <u>International Cooperation to Resolve International Pollution Problems</u></i>
KTHC	42.2004	<i>Francesco CRESPI: <u>Notes on the Determinants of Innovation: A Multi-Perspective Analysis</u></i>

CTN	43.2004	<i>Sergio CURRARINI and Marco MARINI: <u>Coalition Formation in Games without Synergies</u></i>
CTN	44.2004	<i>Marc ESCRHUELA-VILLAR: <u>Cartel Sustainability and Cartel Stability</u></i>
NRM	45.2004	<i>Sebastian BERVOETS and Nicolas GRAVEL (lxvi): <u>Appraising Diversity with an Ordinal Notion of Similarity: An Axiomatic Approach</u></i>
NRM	46.2004	<i>Signe ANTHON and Bo JELLESMARK THORSEN (lxvi): <u>Optimal Afforestation Contracts with Asymmetric Information on Private Environmental Benefits</u></i>
NRM	47.2004	<i>John MBURU (lxvi): <u>Wildlife Conservation and Management in Kenya: Towards a Co-management Approach</u></i>
NRM	48.2004	<i>Ekin BIROL, Ágnes GYOVAI and Melinda SMALE (lxvi): <u>Using a Choice Experiment to Value Agricultural Biodiversity on Hungarian Small Farms: Agri-Environmental Policies in a Transitional Economy</u></i>
CCMP	49.2004	<i>Gernot KLEPPER and Sonja PETERSON: <u>The EU Emissions Trading Scheme. Allowance Prices, Trade Flows, Competitiveness Effects</u></i>
GG	50.2004	<i>Scott BARRETT and Michael HOEL: <u>Optimal Disease Eradication</u></i>
CTN	51.2004	<i>Dinko DIMITROV, Peter BORM, Ruud HENDRICKX and Shao CHIN SUNG: <u>Simple Priorities and Core Stability in Hedonic Games</u></i>
SIEV	52.2004	<i>Francesco RICCI: <u>Channels of Transmission of Environmental Policy to Economic Growth: A Survey of the Theory</u></i>
SIEV	53.2004	<i>Anna ALBERINI, Maureen CROPPER, Alan KRUPNICK and Nathalie B. SIMON: <u>Willingness to Pay for Mortality Risk Reductions: Does Latency Matter?</u></i>
NRM	54.2004	<i>Ingo BRÄUER and Rainer MARGGRAF (lxvi): <u>Valuation of Ecosystem Services Provided by Biodiversity Conservation: An Integrated Hydrological and Economic Model to Value the Enhanced Nitrogen Retention in Renaturated Streams</u></i>
NRM	55.2004	<i>Timo GOESCHL and Tun LIN (lxvi): <u>Biodiversity Conservation on Private Lands: Information Problems and Regulatory Choices</u></i>
NRM	56.2004	<i>Tom DEDEURWAERDERE (lxvi): <u>Bioprospection: From the Economics of Contracts to Reflexive Governance</u></i>
CCMP	57.2004	<i>Katrin REHDANZ and David MADDISON: <u>The Amenity Value of Climate to German Households</u></i>
CCMP	58.2004	<i>Koen SMEKENS and Bob VAN DER ZWAAN: <u>Environmental Externalities of Geological Carbon Sequestration Effects on Energy Scenarios</u></i>
NRM	59.2004	<i>Valentina BOSETTI, Mariaester CASSINELLI and Alessandro LANZA (lxvii): <u>Using Data Envelopment Analysis to Evaluate Environmentally Conscious Tourism Management</u></i>
NRM	60.2004	<i>Timo GOESCHL and Danilo CAMARGO IGLIORI (lxvi): <u>Property Rights Conservation and Development: An Analysis of Extractive Reserves in the Brazilian Amazon</u></i>
CCMP	61.2004	<i>Barbara BUCHNER and Carlo CARRARO: <u>Economic and Environmental Effectiveness of a Technology-based Climate Protocol</u></i>
NRM	62.2004	<i>Elissaios POPYRAKIS and Reyer GERLAGH: <u>Resource-Abundance and Economic Growth in the U.S.</u></i>
NRM	63.2004	<i>Györgyi BELA, György PATAKI, Melinda SMALE and Mariann HAJDÚ (lxvi): <u>Conserving Crop Genetic Resources on Smallholder Farms in Hungary: Institutional Analysis</u></i>
NRM	64.2004	<i>E.C.M. RUIJGROK and E.E.M. NILLESEN (lxvi): <u>The Socio-Economic Value of Natural Riverbanks in the Netherlands</u></i>
NRM	65.2004	<i>E.C.M. RUIJGROK (lxvi): <u>Reducing Acidification: The Benefits of Increased Nature Quality. Investigating the Possibilities of the Contingent Valuation Method</u></i>
ETA	66.2004	<i>Giannis VARDAS and Anastasios XEPAPADEAS: <u>Uncertainty Aversion, Robust Control and Asset Holdings</u></i>
GG	67.2004	<i>Anastasios XEPAPADEAS and Constadina PASSA: <u>Participation in and Compliance with Public Voluntary Environmental Programs: An Evolutionary Approach</u></i>
GG	68.2004	<i>Michael FINUS: <u>Modesty Pays: Sometimes!</u></i>
NRM	69.2004	<i>Trond BJØRNDAL and Ana BRASÃO: <u>The Northern Atlantic Bluefin Tuna Fisheries: Management and Policy Implications</u></i>
CTN	70.2004	<i>Alejandro CAPARRÓS, Abdelhakim HAMMOUDI and Tarik TAZDAÏT: <u>On Coalition Formation with Heterogeneous Agents</u></i>
IEM	71.2004	<i>Massimo GIOVANNINI, Margherita GRASSO, Alessandro LANZA and Matteo MANERA: <u>Conditional Correlations in the Returns on Oil Companies Stock Prices and Their Determinants</u></i>
IEM	72.2004	<i>Alessandro LANZA, Matteo MANERA and Michael MCALEER: <u>Modelling Dynamic Conditional Correlations in WTI Oil Forward and Futures Returns</u></i>
SIEV	73.2004	<i>Margarita GENIUS and Elisabetta STRAZZERA: <u>The Copula Approach to Sample Selection Modelling: An Application to the Recreational Value of Forests</u></i>
CCMP	74.2004	<i>Rob DELLINK and Ekko van IERLAND: <u>Pollution Abatement in the Netherlands: A Dynamic Applied General Equilibrium Assessment</u></i>
ETA	75.2004	<i>Rosella LEVAGGI and Michele MORETTO: <u>Investment in Hospital Care Technology under Different Purchasing Rules: A Real Option Approach</u></i>
CTN	76.2004	<i>Salvador BARBERÀ and Matthew O. JACKSON (lxx): <u>On the Weights of Nations: Assigning Voting Weights in a Heterogeneous Union</u></i>
CTN	77.2004	<i>Àlex ARENAS, Antonio CABRALES, Albert DÍAZ-GUILERA, Roger GUIMERA and Fernando VEGA-REDONDO (lxx): <u>Optimal Information Transmission in Organizations: Search and Congestion</u></i>
CTN	78.2004	<i>Francis BLOCH and Armando GOMES (lxx): <u>Contracting with Externalities and Outside Options</u></i>
CTN	79.2004	<i>Rabah AMIR, Effrosyni DIAMANTOUDI and Licun XUE (lxx): <u>Merger Performance under Uncertain Efficiency Gains</u></i>
CTN	80.2004	<i>Francis BLOCH and Matthew O. JACKSON (lxx): <u>The Formation of Networks with Transfers among Players</u></i>
CTN	81.2004	<i>Daniel DIERMEIER, Hülya ERASLAN and Antonio MERLO (lxx): <u>Bicameralism and Government Formation</u></i>

CTN	82.2004	<i>Rod GARRATT, James E. PARCO, Cheng-ZHONG QIN and Amnon RAPOPORT (lxx): <u>Potential Maximization and Coalition Government Formation</u></i>
CTN	83.2004	<i>Kfir ELIAZ, Debraj RAY and Ronny RAZIN (lxx): <u>Group Decision-Making in the Shadow of Disagreement</u></i>
CTN	84.2004	<i>Sanjeev GOYAL, Marco van der LEIJ and José Luis MORAGA-GONZÁLEZ (lxx): <u>Economics: An Emerging Small World?</u></i>
CTN	85.2004	<i>Edward CARTWRIGHT (lxx): <u>Learning to Play Approximate Nash Equilibria in Games with Many Players</u></i>
IEM	86.2004	<i>Finn R. FØRSUND and Michael HOEL: <u>Properties of a Non-Competitive Electricity Market Dominated by Hydroelectric Power</u></i>
KTHC	87.2004	<i>Elissaios POPYRAKIS and Reyer GERLAGH: <u>Natural Resources, Investment and Long-Term Income</u></i>
CCMP	88.2004	<i>Marzio GALEOTTI and Claudia KEMFERT: <u>Interactions between Climate and Trade Policies: A Survey</u></i>
IEM	89.2004	<i>A. MARKANDYA, S. PEDROSO and D. STREIMIKIENE: <u>Energy Efficiency in Transition Economies: Is There Convergence Towards the EU Average?</u></i>
GG	90.2004	<i>Rolf GOLOMBEK and Michael HOEL: <u>Climate Agreements and Technology Policy</u></i>
PRA	91.2004	<i>Sergei IZMALKOV (lxx): <u>Multi-Unit Open Ascending Price Efficient Auction</u></i>
KTHC	92.2004	<i>Gianmarco I.P. OTTAVIANO and Giovanni PERI: <u>Cities and Cultures</u></i>
KTHC	93.2004	<i>Massimo DEL GATTO: <u>Agglomeration, Integration, and Territorial Authority Scale in a System of Trading Cities. Centralisation versus devolution</u></i>
CCMP	94.2004	<i>Pierre-André JOUVET, Philippe MICHEL and Gilles ROTILLON: <u>Equilibrium with a Market of Permits</u></i>
CCMP	95.2004	<i>Bob van der ZWAAN and Reyer GERLAGH: <u>Climate Uncertainty and the Necessity to Transform Global Energy Supply</u></i>
CCMP	96.2004	<i>Francesco BOSELLO, Marco LAZZARIN, Roberto ROSON and Richard S.J. TOL: <u>Economy-Wide Estimates of the Implications of Climate Change: Sea Level Rise</u></i>
CTN	97.2004	<i>Gustavo BERGANTIÑOS and Juan J. VIDAL-PUGA: <u>Defining Rules in Cost Spanning Tree Problems Through the Canonical Form</u></i>
CTN	98.2004	<i>Siddhartha BANDYOPADHYAY and Mandar OAK: <u>Party Formation and Coalitional Bargaining in a Model of Proportional Representation</u></i>
GG	99.2004	<i>Hans-Peter WEIKARD, Michael FINUS and Juan-Carlos ALTAMIRANO-CABRERA: <u>The Impact of Surplus Sharing on the Stability of International Climate Agreements</u></i>
SIEV	100.2004	<i>Chiara M. TRAVISI and Peter NIJKAMP: <u>Willingness to Pay for Agricultural Environmental Safety: Evidence from a Survey of Milan, Italy, Residents</u></i>
SIEV	101.2004	<i>Chiara M. TRAVISI, Raymond J. G. M. FLORAX and Peter NIJKAMP: <u>A Meta-Analysis of the Willingness to Pay for Reductions in Pesticide Risk Exposure</u></i>
NRM	102.2004	<i>Valentina BOSETTI and David TOMBERLIN: <u>Real Options Analysis of Fishing Fleet Dynamics: A Test</u></i>
CCMP	103.2004	<i>Alessandra GORIA e Gretel GAMBARELLI: <u>Economic Evaluation of Climate Change Impacts and Adaptability in Italy</u></i>
PRA	104.2004	<i>Massimo FLORIO and Mara GRASSEN: <u>The Missing Shock: The Macroeconomic Impact of British Privatisation</u></i>
PRA	105.2004	<i>John BENNETT, Saul ESTRIN, James MAW and Giovanni URGA: <u>Privatisation Methods and Economic Growth in Transition Economies</u></i>
PRA	106.2004	<i>Kira BÖRNER: <u>The Political Economy of Privatization: Why Do Governments Want Reforms?</u></i>
PRA	107.2004	<i>Pehr-Johan NORBÄCK and Lars PERSSON: <u>Privatization and Restructuring in Concentrated Markets</u></i>
SIEV	108.2004	<i>Angela GRANZOTTO, Fabio PRANOVI, Simone LIBRALATO, Patrizia TORRICELLI and Danilo MAINARDI: <u>Comparison between Artisanal Fishery and Manila Clam Harvesting in the Venice Lagoon by Using Ecosystem Indicators: An Ecological Economics Perspective</u></i>
CTN	109.2004	<i>Somdeb LAHIRI: <u>The Cooperative Theory of Two Sided Matching Problems: A Re-examination of Some Results</u></i>
NRM	110.2004	<i>Giuseppe DI VITA: <u>Natural Resources Dynamics: Another Look</u></i>
SIEV	111.2004	<i>Anna ALBERINI, Alistair HUNT and Anil MARKANDYA: <u>Willingness to Pay to Reduce Mortality Risks: Evidence from a Three-Country Contingent Valuation Study</u></i>
KTHC	112.2004	<i>Valeria PAPPONETTI and Dino PINELLI: <u>Scientific Advice to Public Policy-Making</u></i>
SIEV	113.2004	<i>Paulo A.L.D. NUNES and Laura ONOFRI: <u>The Economics of Warm Glow: A Note on Consumer's Behavior and Public Policy Implications</u></i>
IEM	114.2004	<i>Patrick CAYRADE: <u>Investments in Gas Pipelines and Liquefied Natural Gas Infrastructure What is the Impact on the Security of Supply?</u></i>
IEM	115.2004	<i>Valeria COSTANTINI and Francesco GRACCEVA: <u>Oil Security. Short- and Long-Term Policies</u></i>
IEM	116.2004	<i>Valeria COSTANTINI and Francesco GRACCEVA: <u>Social Costs of Energy Disruptions</u></i>
IEM	117.2004	<i>Christian EGENHOFER, Kyriakos GIALOGLOU, Giacomo LUCIANI, Maroeska BOOTS, Martin SCHEEPERS, Valeria COSTANTINI, Francesco GRACCEVA, Anil MARKANDYA and Giorgio VICINI: <u>Market-Based Options for Security of Energy Supply</u></i>
IEM	118.2004	<i>David FISK: <u>Transport Energy Security. The Unseen Risk?</u></i>
IEM	119.2004	<i>Giacomo LUCIANI: <u>Security of Supply for Natural Gas Markets. What is it and What is it not?</u></i>
IEM	120.2004	<i>L.J. de VRIES and R.A. HAKVOORT: <u>The Question of Generation Adequacy in Liberalised Electricity Markets</u></i>
KTHC	121.2004	<i>Alberto PETRUCCI: <u>Asset Accumulation, Fertility Choice and Nondegenerate Dynamics in a Small Open Economy</u></i>
NRM	122.2004	<i>Carlo GIUPPONI, Jaroslaw MYSLAK and Anita FASSIO: <u>An Integrated Assessment Framework for Water Resources Management: A DSS Tool and a Pilot Study Application</u></i>
NRM	123.2004	<i>Margaretha BREIL, Anita FASSIO, Carlo GIUPPONI and Paolo ROSATO: <u>Evaluation of Urban Improvement on the Islands of the Venice Lagoon: A Spatially-Distributed Hedonic-Hierarchical Approach</u></i>

ETA 124.2004 *Paul MENSINK: Instant Efficient Pollution Abatement Under Non-Linear Taxation and Asymmetric Information: The Differential Tax Revisited*

NRM 125.2004 *Mauro FABIANO, Gabriella CAMARSA, Rosanna DURSI, Roberta IVALDI, Valentina MARIN and Francesca PALMISANI: Integrated Environmental Study for Beach Management: A Methodological Approach*

- (lix) This paper was presented at the ENGIME Workshop on “Mapping Diversity”, Leuven, May 16-17, 2002
- (lx) This paper was presented at the EuroConference on “Auctions and Market Design: Theory, Evidence and Applications”, organised by the Fondazione Eni Enrico Mattei, Milan, September 26-28, 2002
- (lxi) This paper was presented at the Eighth Meeting of the Coalition Theory Network organised by the GREQAM, Aix-en-Provence, France, January 24-25, 2003
- (lxii) This paper was presented at the ENGIME Workshop on “Communication across Cultures in Multicultural Cities”, The Hague, November 7-8, 2002
- (lxiii) This paper was presented at the ENGIME Workshop on “Social dynamics and conflicts in multicultural cities”, Milan, March 20-21, 2003
- (lxiv) This paper was presented at the International Conference on “Theoretical Topics in Ecological Economics”, organised by the Abdus Salam International Centre for Theoretical Physics - ICTP, the Beijer International Institute of Ecological Economics, and Fondazione Eni Enrico Mattei – FEEM Trieste, February 10-21, 2003
- (lxv) This paper was presented at the EuroConference on “Auctions and Market Design: Theory, Evidence and Applications” organised by Fondazione Eni Enrico Mattei and sponsored by the EU, Milan, September 25-27, 2003
- (lxvi) This paper has been presented at the 4th BioEcon Workshop on “Economic Analysis of Policies for Biodiversity Conservation” organised on behalf of the BIOECON Network by Fondazione Eni Enrico Mattei, Venice International University (VIU) and University College London (UCL), Venice, August 28-29, 2003
- (lxvii) This paper has been presented at the international conference on “Tourism and Sustainable Economic Development – Macro and Micro Economic Issues” jointly organised by CRENoS (Università di Cagliari e Sassari, Italy) and Fondazione Eni Enrico Mattei, and supported by the World Bank, Sardinia, September 19-20, 2003
- (lxviii) This paper was presented at the ENGIME Workshop on “Governance and Policies in Multicultural Cities”, Rome, June 5-6, 2003
- (lxix) This paper was presented at the Fourth EEP Plenary Workshop and EEP Conference “The Future of Climate Policy”, Cagliari, Italy, 27-28 March 2003
- (lxx) This paper was presented at the 9th Coalition Theory Workshop on "Collective Decisions and Institutional Design" organised by the Universitat Autònoma de Barcelona and held in Barcelona, Spain, January 30-31, 2004

2003 SERIES

CLIM	<i>Climate Change Modelling and Policy</i> (Editor: Marzio Galeotti)
GG	<i>Global Governance</i> (Editor: Carlo Carraro)
SIEV	<i>Sustainability Indicators and Environmental Valuation</i> (Editor: Anna Alberini)
NRM	<i>Natural Resources Management</i> (Editor: Carlo Giupponi)
KNOW	<i>Knowledge, Technology, Human Capital</i> (Editor: Gianmarco Ottaviano)
IEM	<i>International Energy Markets</i> (Editor: Anil Markandya)
CSR	<i>Corporate Social Responsibility and Management</i> (Editor: Sabina Ratti)
PRIV	<i>Privatisation, Regulation, Antitrust</i> (Editor: Bernardo Bortolotti)
ETA	<i>Economic Theory and Applications</i> (Editor: Carlo Carraro)
CTN	<i>Coalition Theory Network</i>

2004 SERIES

CCMP	<i>Climate Change Modelling and Policy</i> (Editor: Marzio Galeotti)
GG	<i>Global Governance</i> (Editor: Carlo Carraro)
SIEV	<i>Sustainability Indicators and Environmental Valuation</i> (Editor: Anna Alberini)
NRM	<i>Natural Resources Management</i> (Editor: Carlo Giupponi)
KTHC	<i>Knowledge, Technology, Human Capital</i> (Editor: Gianmarco Ottaviano)
IEM	<i>International Energy Markets</i> (Editor: Anil Markandya)
CSR	<i>Corporate Social Responsibility and Management</i> (Editor: Sabina Ratti)
PRA	<i>Privatisation, Regulation, Antitrust</i> (Editor: Bernardo Bortolotti)
ETA	<i>Economic Theory and Applications</i> (Editor: Carlo Carraro)
CTN	<i>Coalition Theory Network</i>