TeMA

Journal of
Land Use, Mobility and Environment

This special issue collects a selection of peer-review papers presented at the 8th International Conference INPUT 2014 titled "Smart City: planning for energy, transportation and sustainability of urban systems", held on 4-6 June in Naples, Italy. The issue includes recent developments on the theme of relationship between innovation and city management and planning.

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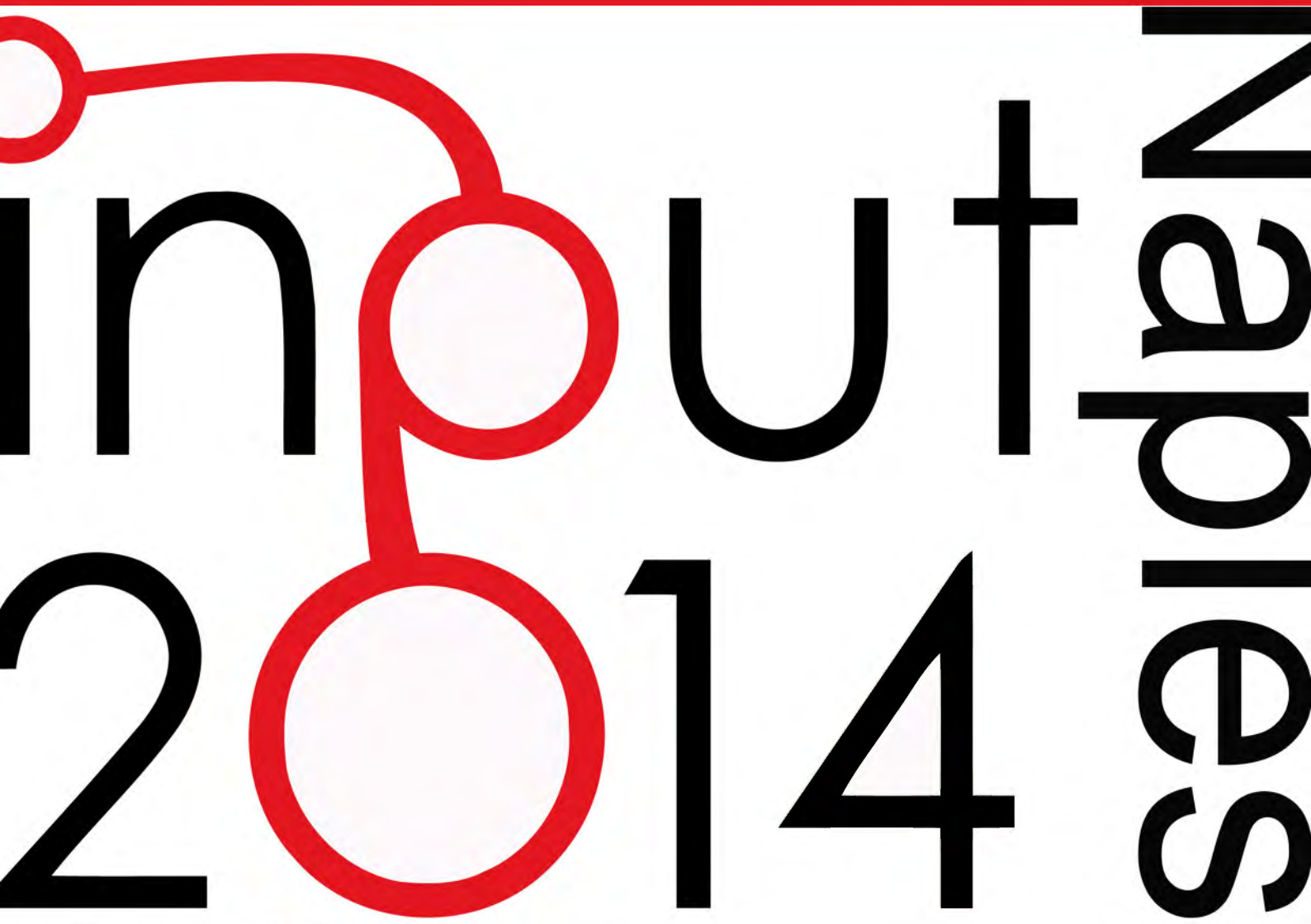

Smart City

planning for energy, transportation and sustainability of the urban system

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TeMA Journal of Land Use, Mobility and Environment

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This special issue of TeMA collects the papers presented at the 8th International Conference INPUT 2014 which will take place in Naples from 4th to 6th June. The Conference focuses on one of the central topics within the urban studies debate and combines, in a new perspective, researches concerning the relationship between innovation and management of city changing.

TeMA Journal of Land Use, Mobility and Environment

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EIGHTH INTERNATIONAL CONFERENCE INPUT 2014

SMART CITY. PLANNING FOR ENERGY, TRANSPORTATION AND SUSTAINABILITY OF THE URBAN SYSTEM

This special issue of TeMA collects the papers presented at the Eighth International Conference INPUT, 2014, titled "Smart City. Planning for energy, transportation and sustainability of the urban system" that takes place in Naples from 4 to 6 of June 2014.

INPUT (Innovation in Urban Planning and Territorial) consists of an informal group/network of academic researchers Italians and foreigners working in several areas related to urban and territorial planning. Starting from the first conference, held in Venice in 1999, INPUT has represented an opportunity to reflect on the use of Information and Communication Technologies (ICTs) as key planning support tools. The theme of the eighth conference focuses on one of the most topical debate of urban studies that combines , in a new perspective, researches concerning the relationship between innovation (technological, methodological, of process etc..) and the management of the changes of the city. The Smart City is also currently the most investigated subject by TeMA that with this number is intended to provide a broad overview of the research activities currently in place in Italy and a number of European countries. Naples, with its tradition of studies in this particular research field, represents the best place to review progress on what is being done and try to identify some structural elements of a planning approach.

Furthermore the conference has represented the ideal space of mind comparison and ideas exchanging about a number of topics like: planning support systems, models to geo-design, qualitative cognitive models and formal ontologies, smart mobility and urban transport, Visualization and spatial perception in urban planning innovative processes for urban regeneration, smart city and smart citizen, the Smart Energy Master project, urban entropy and evaluation in urban planning, etc..

The conference INPUT Naples 2014 were sent 84 papers, through a computerized procedure using the website www.input2014.it . The papers were subjected to a series of monitoring and control operations. The first fundamental phase saw the submission of the papers to reviewers. To enable a blind procedure the papers have been checked in advance, in order to eliminate any reference to the authors. The review was carried out on a form set up by the local scientific committee. The review forms received were sent to the authors who have adapted the papers, in a more or less extensive way, on the base of the received comments. At this point (third stage), the new version of the paper was subjected to control for to standardize the content to the layout required for the publication within TeMA. In parallel, the Local Scientific Committee, along with the Editorial Board of the magazine, has provided to the technical operation on the site TeMA (insertion of data for the indexing and insertion of pdf version of the papers). In the light of the time's shortness and of the high number of contributions the Local Scientific Committee decided to publish the papers by applying some simplifies compared with the normal procedures used by TeMA. Specifically:

- Each paper was equipped with cover, TeMA Editorial Advisory Board, INPUT Scientific Committee, introductory page of INPUT 2014 and summary;
- Summary and sorting of the papers are in alphabetical order, based on the surname of the first author;
- Each paper is indexed with own DOI codex which can be found in the electronic version on TeMA website (www.tema.unina.it). The codex is not present on the pdf version of the papers.

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THE ENERGY NETWORKS LANDSCAPE

IMPACTS ON RURAL LAND IN THE MOLISE REGION

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ABSTRACT
The paper concerns the study of the energy infrastructure that have the most impact on rural land. The analysis focuses on the systems for wind power and ground–mounted photovoltaic plants.
The case study is the Region of Molise, in Southern Italy. This Region is an emblematic case because it has a significant number of installations as seen in relationship with the whole national territory. The case becomes even more special with reference to local guidelines that have undergone successive formulations, precisely in relation to the installation in specific areas of the Region. The study analyzes current national and regional rules and it proposes a methodology to support Local Authorities especially in relation to the definition of landscape quality aims, that the new Regional Landscape Plan must provide.

KEYWORDS
Rural Land, Renewable Energy, Landscape, Environment

1 INTRODUCTION

The paper examines the panorama of installations in the Region in order to establish what the legislative framework is and what the actual state of these installations is. Following studies already carried out by our research group - including spatial analysis of knowledge of the land and its topography, its natural sites and its settlement systems, this paper describes an ongoing collaboration between our University of Molise, the Molise Region and the Regional Protection Heritage Office of Molise[1], for the verification of existing tools, analyzing in particular the restrictions resulting from the identification of areas of visual interest.
The first part of this paper describes the regional legislative situation and the context into which these power plants are inserted. This is followed by a description of the territorial analyses undertaken regarding the installation of such power plants, in particular in the Region's coastal zone.

2 THE REALITY OF THE MOLISE REGION

As regards the law, the paper mentions the national and regional standards that have evolved in recent years (Cialdea *et al.* 2010 a, b 2014). As is known, the production of electrical energy underwent a great change in the 90's: in fact, the two laws of 1991 opened a new scenario because from that time onwards the power production was no longer just the prerogative of ENEL (National Agency for Electricity), and the Regions were delegated to identify suitable areas within their territory for the exploitation of renewable energy sources. Moreover, the Act recognized the expropriation in the public interest of the land on which to establish installations for the production of renewable energy.
In 1999, to implement Directive 96/92/EC (common rules for the internal electricity market), the Legislative Decree no. 79/99 was issued which promotes the production of electricity from renewable sources. This obliged producers of energy from fossil fuels to introduce green energy into the electricity market by 2001 or, alternatively, as determined by the Ministerial Decree of 11 November 1999, to purchase of "green certificates". The reform of the Title V of the Italian Constitution (Constitutional Law no. 3/2001) assigned legislative power over energy production to the Regions[2].
Afterwards new Guidelines for the authorization of renewable energy, plants were implemented by the National Decree in 2010: they will be analyzed in this paper.
In 2006, the Molise Region adopted the Regional Environmental Energy Plan with the goal of optimizing and encouraging energy conservation, and enhancing green energy sources with particular attention to hydroelectric and wind power. The Plan highlights the potential of the Molise territory for the production of wind energy and suggests a target scenario for 2015 in which the installation of wind turbines exceeds 1,700 MW. In addition, the plan identifies areas within the river Biferno basin as sites of great interest for wind energy. The 2015 target scenario does not take into account the contribution of PV integrated into buildings, neither does it considered the construction of ground-mounted photovoltaic plants. The Plan also lays down

[1] In fact, in 2011, the l.a.co.s.t.a. Laboratory (Director prof. D. Cialdea) of the University of Molise was engaged for the realization of the "New Regional Landscape Plan of Molise", through an agreement with the Molise Region.

[2] The Legislative Decree no. 387/2003, in transposition of the European Directive 2001/77/EC on the production of electricity from renewable sources, established the purpose of promotion of renewable energy sources. In particular art. 12 ordered that the works for the construction of plants powered by renewable energy sources are of public utility, urgent and subjected only to regional authorization in accordance with the Ministerial guidelines. In carrying out these guidelines, the Regions can indicate unsuitable areas and sites for the construction of specific types of plants.

the guidelines for the evaluation of projects and the impacts of wind farms to be implemented by future regional laws.

In 2008, the Molise Region issued its own regional law governing the installation of wind and photovoltaic plants in the area. This law and the subsequent guidelines, identified a number of areas unsuitable for the installation of wind and photovoltaic plants, in particular the areas of regional parks and nature reserves, the "zone 1" of national parks, areas of "protection and integrated conservation" of the Vast Area Landscape Environmental Plans, the SPAs (Special Protection Areas), SCI (Sites of Community Interest) and the area of the Tammaro Valley and the surrounding hills.

It must be stressed that this Law (Art. 2, paragraph 1) forbids the construction of wind farms even in the buffer zone of not less than 3 km from the perimeter of parks and archaeological areas, in the buffer zone of not less than 1 km from the urbanized perimeter, in the buffer zone of 500 meters from residential or rural houses, in the buffer zone of 200 meters from the perimeter boundary of the neighbouring municipalities, in the buffer zone of 5,000 linear meters from the coastline, in the buffer zone of 1 km from river shores, wetlands, lakes and dams.

These points of paragraph 1 of article 2 were declared illegal by the ruling n. 282/2009 of the Constitutional Court[3] because the areas deemed unsuitable were arbitrarily identified by the Region without technical reasons. The same ruling declared the ban on the construction of offshore wind installations illegal because the administrative functions relating to the use of the maritime domain are the responsibility of the State. Article 3, which subordinated the granting of permits for installation of plants to the meeting of specific limits set at 545 wind turbines, each of the minimum power of 2 MW and a total of 500 MW of power for the entire region from photovoltaic systems on the ground, was also declared illegitimate.

In fact, prior to this ruling, the Region had already taken steps to change the Regional Law no. 15/2008 with the enactment of the Regional Law no. 22/2009[4] and subsequent new guidelines[5].

In this law article 2, paragraph 1 of the Regional Law no. 15/2008 is again taken up in the version subsequently modified by the ruling of the Constitutional Court with the exception of the areas IBA (Important Bird Area) that are inserted in the unsuitable areas. The Law instead considers the possibility of installations in the SCI areas, but only after a positive result from an assessment of the environmental impact, and in the area of the Tammaro Valley and the surrounding hills.

Moreover, article 3 paragraph 1 of the Regional Law 22/2009 states that plants - not exceeding 1 MW – are authorized directly by Municipalities through the DIA ("Dichiarazione di Inizio Attività - Starting Construction Report").

Also in this case another Constitutional Court ruling[6] stated that this exception could only be introduced by Ministerial decree and not directly by Municipalities; so the Molise Region amended its Guidelines stating that, even for installations not exceeding 1 MW, the procedure for a single authorization issued according to Regional Norms must be followed[7].

Additional changes and additions to the Law of 2009 were made by Regional Law no. 23/2010. This law reinserted the Tammaro Valley and surrounding hills in the list of areas unsuited to the realization of wind farms and photovoltaic installations, because it is one of the Region's most important archaeological

3 Constitutional Court ruling no. 282 of the 2 November 2009.

4 Regional Molise Law no. 22 of the 7 august 2009 - New Rules for the installation of production plants for electricity from renewable sources in the Region of Molise.

5 Regional Council Resolution no. 1074 of the 16 November 2009 – New Guidelines.

6 Constitutional Court ruling no. 194 of the 26 May 2010.

7 Regional Council Resolution no. 857 of the 25 October 2010 – Modification of guidelines for the implementation of the single procedure in art. 12, paragraph 3, of Legislative Decree no. 87/03, concerning the production of electricity from renewable sources.

contexts. Subsequently, a Council of Ministers Ruling[8] declared this Regional law to be unconstitutional because of the above-mentioned Legislative Decree no. 387/2003 which states that Regions can proceed with the identification of unsuitable areas, but in accordance with National Guidelines. In fact, according to D.M. of 10th September 2010 (National Guidelines for the authorization of plants powered by renewable sources) unsuitable zones could be identified with regard to specific sites after the completion of a thorough investigation that would identify particularly sensitive or vulnerable areas.
Finally, the Molise Region approved final guidelines for authorization to build and to manage plants producing electricity from renewable sources[9] that reproduces verbatim D.M. of the 10 September 2010.

3 FOCUS ON COASTAL ZONE

This paper presents the situation of power plants in the Region with reference to the two main types of plants installed in rural areas: wind farms and ground-mounted photovoltaic plants. The invasion of the coastal area by ground-mounted photovoltaic plants and by the large number of wind farms situated along the ridges in the pre-coastal area is very clear, especially in the eastern part of the province of Campobasso, along the ridge located between the Biferno Valley and the Fortore Valley.
In detail the paper analyzed the territorial assessment of the Coastal Zone whose main matrix appears to be agricultural-productive and its orographic characteristics favourable to agricultural practices (Cialdea, 2012). In this prevalent matrix there are also environmental excellences such as the coastal landscape, waterways designed by the main watercourse of the Region, the Biferno River, and high natural values such as SCI areas. At the same time this territory is one that has been affected by the major territorial changes that occurred in the last fifty years as a result of the settlement of the major regional infrastructure, all made along the coast of the great transformations due to the processes of agrarian land reform, the implementation settlements tourist resorts and insertion of new energy infrastructure.
The figure 1 shows the situation in the Coastal Zone of the Region and shows the number of wind farms and ground-mounted photovoltaic plants in each municipality territory. The installations are subdivided in three project typologies:

- Approved projects by Environmental Impact Assessment (EIA): wind or photovoltaic projects for which have been required the EIA act in accord to the Regional Law no. 21/200010. The EIA procedure has been positive issue;
- Approved projects only by Screening Act: projects that have been subjected to screening process and for which it isn't necessary the EIA procedure;
- Ongoing projects – EIA in progress: projects that have benne subjected to screening process and for which is necessary realize the EIA procedure.

The data refers to the procedures for environmental impact assessment (EIA) and environmental assessment (VA) used for screening wind farms and photovoltaic plants from 2000 to 2014, taken from the Molise Region's institutional website[11]. Plants already on maps, that is those greater than 1 MW, have not be considered. Most of the cases submitted to the opinion of the Regional Authority, about 90%, are

[8] Council of Ministers Resolution of the 23 February 2011 - Impugnment of the Law no. 23 of the 23 December 2010.
[9] Regional Council Resolution no. 621 of the 4 August 2011 - Guidelines for the implementation of the procedure as in art. 12 of Legislative Decree no. 387/2003 for the authorization to construct and operate plants producing electricity from renewable sources in the Molise Region.
[10] Regional Law no. 21 of the 4 March 2000: Rules for the EIA procedure.
[11] Source http://www3.regione.molise.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/660 in March 2014.

concentrated in three years (2009-2012). In some years (2000 - 2001 - 2003 - 2004 - 2006), no plant was submitted for evaluation by the Molise Region. The data shows that in the coastal areas (Montenero di Bisaccia, Campomarino, Petacciato) there is a substantial and exclusive concentration of photovoltaic plants, while in the pre-coastal territories there is a higher concentration of wind farms (Acquaviva Collecroce, Santa Croce di Magliano, Bonefro, Ururi, Montecilfone).

Projects submitted to verification in order to determine whether they should undergo environmental impact assessment (commonly called "Screening") represent 97 % of all evaluations. The procedure is intended to determine whether the proposed project may have a significant environmental impact and therefore should

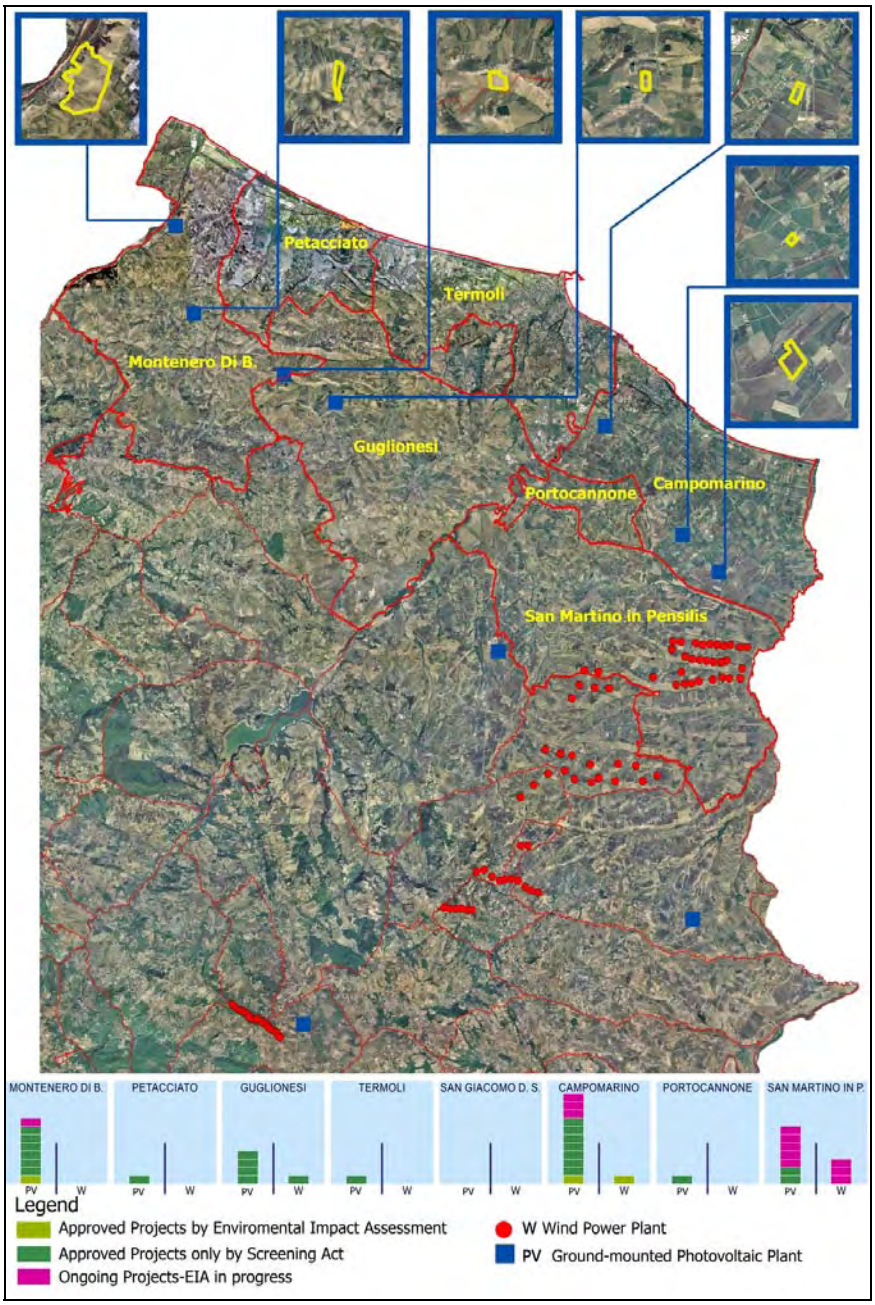

Fig. 1 Wind power and ground-mounted photovoltaic plants in the Molise Coastal Zone

be subject to further EIA procedures, or not. There are three wind power plants in the Region subject to environmental impact assessment (EIA) localized in Campomarino, Portocannone and San Martino in Pensilis, and two photovoltaic plants localized in Campomarino-Portocannone and Montenero di Bisaccia.
The figure 2 shows the Land use evolution by highlighting the major increases and decreases in the Molise Coastal Region by a diachronic analysis. The aim of this diachronic analysis was to compare two representations of the territory fifty years apart. We used data from the vegetation map of the Molise Region drafted after World War II (indicative reference year: 1954) and data from the Corine Land Cover 2006. To do this analysis the keys were standardized and then a comparative vector informative layer was used (Cialdea, Maccarone, 2012). In the analysis of the evolution of land use we wanted particularly to highlight the great territorial evolution related to changes in agricultural zones and in urbanized areas. It can be seen that the greatest changes in the coastal zone have been determined by urbanization and the expansion of the town of Termoli, of the lidos on the beaches of Termoli and Campomarino and the Biferno Valley Industrial Area near the border between these two areas. In the pre-coastal area the major transformation has been the artificial lake of Guardialfiera (figure 2 shows its different territorial situations: a: Guardialfiera Lake; b: Industrial Area; c: Lido of Termoli; d: Lido of Campomarino; e: agricultural area along the L'Aquila-Foggia cattle-track). These greatest changes are showed in the last mentioned figure. The land use predominance, especially in the pre-coastal zone, remains mainly its agricultural nature.

4 CONCLUSION

The aim of this paper was to identify a methodology of territory analysis available for the control of these new infrastructures involving rural areas, creating new forms of landscape impact (Empler *et al.* 2006, Steiner 2004). Moreover it is important verify the current land use. Also we wanted to assess how the current landscape plans, drawn up in the early 90s, provided to safeguard their territories, starting from the identification of their elements of interest. The spirit of the enforcement of the Galasso law, in fact, was to establish the area's transformability by dividing the area of each plans. In fact, as known in the Molise Region the landscape plan did not cover the all regional territory. Therefore, the analysis of the Transformability Map of the Plan no.1, which covers the coastal area, has highlighted the mode of transformations prescribed by the plan.
The actual Landscape Plans are created from documentation referred to by Art. 6 of Regional Law no. 24 of December 1, 1989, which regulates the Legislation regarding Territorial Landscape Plans.
Therefore, the project tables containing, among other things, the indications of the degree of landscape and environmental transformability of the area and the methods of protection and enhancement (according to Art. 4 of the same Act) are an integral part of the plans. These indications have been reported for all eight plans drawn up for the Region, in the Transformability Map of the area, scale 1:25,000.
The Map of Coastal Zone, shows in figure 3, defines the main characteristics of the area analyzed by dividing it into different fields of interest or risk. For each of these areas, depending on the prevailing interest, was shown a mode of transformation and the resulting land use regulations through the definition of eligible interventions by identifying the areas to be protected. In order to gain a complete picture of the transformability of the Region, all the Transformability Maps of the eight landscape plans in force have been analyzed. The problem arose in the interpretation of the keys to the plans because, having been drafted by eight different workgroups, they do not present a uniform reading of the territory even though they used the same general guidelines. The keys have been simplified so that they can be standardized.

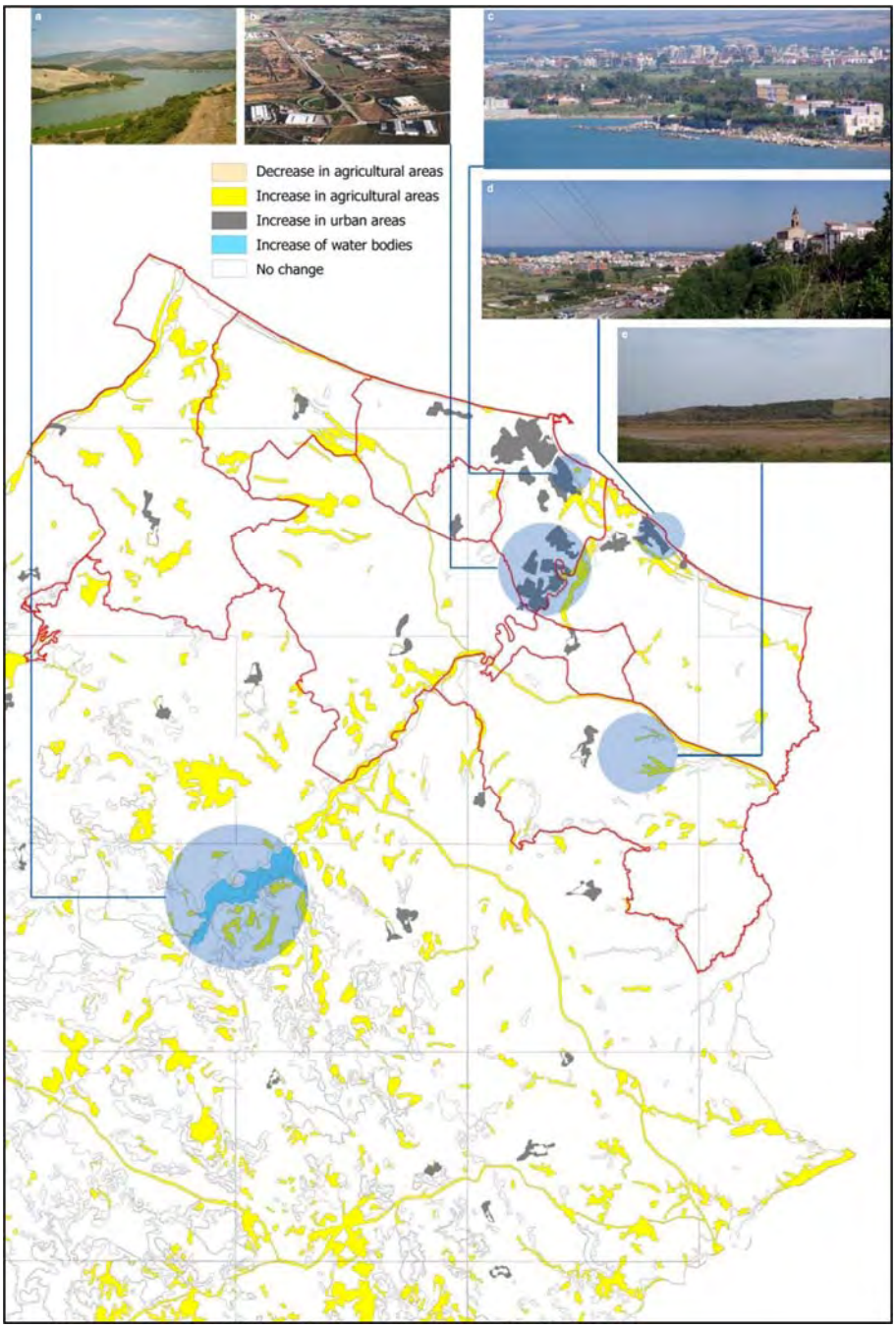

Fig. 2 Land use evolution by highlighting the major increases and decreases in the Molise Coastal Zone

This means that a number of areas have been merged in order to define the following key:

- Areas of exceptionally high naturalistic and visual interest;
- Areas of mainly naturalistic interest;
- Areas of mainly visual interest;
- Areas of mainly historical-urban interest;
- Areas of mainly archeological interest;
- Areas of mainly agricultural-productive interest;
- Areas with a balance between the elements;

- Settlement system;
- Areas of mainly geological risk;
- Pollution of soils.

The legend has been articulated in this way so as to divide the areas with positive interest and, therefore, that constitute valences for the territory, from those with negative interest which constitute a difficulty for the same territory.

Under the new code it is necessary to redefine the landscape quality aims. In the old Vast Area Landscape Environmental Plans modes of transformation of the territory were defined but in order conform to the new legislation the l.a.co.s.t.a. Laboratory of the University of Molise has been entrusted with the creation of new landscape quality aims for the Region of Molise. These aims are stated for each of the geographical areas identified in the analysis phase. There are ten homogeneous areas: Coastal Molise, Middle Biferno-Fortore, Biferno-Trigno, Biferno-central Molise, Matese, Province of Isernia, Montagnola-Upper Molise, Mainarde and Volturno.

For each of these areas the preparations for the New Regional Landscape Plan foresee the definition of the new landscape quality aims as listed in art. 135 of the Code[12] which states that "for each area the landscape plans define specific requirements and provisions, in particular:

- the conservation of the constituent elements and the morphologies of the landscape heritage under protection, taking account of architectural styles, techniques and construction materials, as well as the requirements for the recovery of landscape values;
- the rehabilitation of compromised or degraded areas;
- the protection of landscape features of the other territories, ensuring at the same time, the least consumption of the territory;
- the identification of the lines of urban development and construction, on the basis of their compatibility with the recognized and protected landscape values, with particular attention to the preservation of rural landscapes and sites included in the UNESCO World Heritage List.

Obviously for the areas previously covered by the Vast Area Landscape Environmental Plans the work started with the synthesis maps developed in the early 90s and especially from the Transformability Map.

In the first phase, an Actual state grid was produced starting from the analyses carried out during the preparation of the Vast Area Landscape Environmental Plans and in particular taking into account aspects related to the elements of environmental, landscape, historical, cultural, agricultural, productive, and demographic-tourism interest. In this phase of the work the main activities were the elaboration of this data, the standardization of the reading for all eight plans in force, the integration of analyses not only for those areas not covered by the plan, but also for those covered by the plan because the information is almost twenty years out of date.

The analyses conducted on the ten areas and on the five systems of Physical-Envronmental, Landscape-Visual, Historical-Cultural, Agricultural-Productive and Demographic-Touristic resources has enabled us to formulate targets for the Molise landscapes.

The targets identified for the entire regional area are related to the conservation, protection, management and planning of exceptional, ordinary, and degraded landscapes with particular reference to typical natural landscapes such as rivers, lakes, hills, mountains, coastal and rural landscapes, forestry and agro-pastoral, not to mention historic, rural, urban, industrial and infrastructure sectors.

[12] Legislative Decree no. 42 of the 22 January 2004, Code of Cultural and Landscape Heritage, modified and integrated by successive laws.

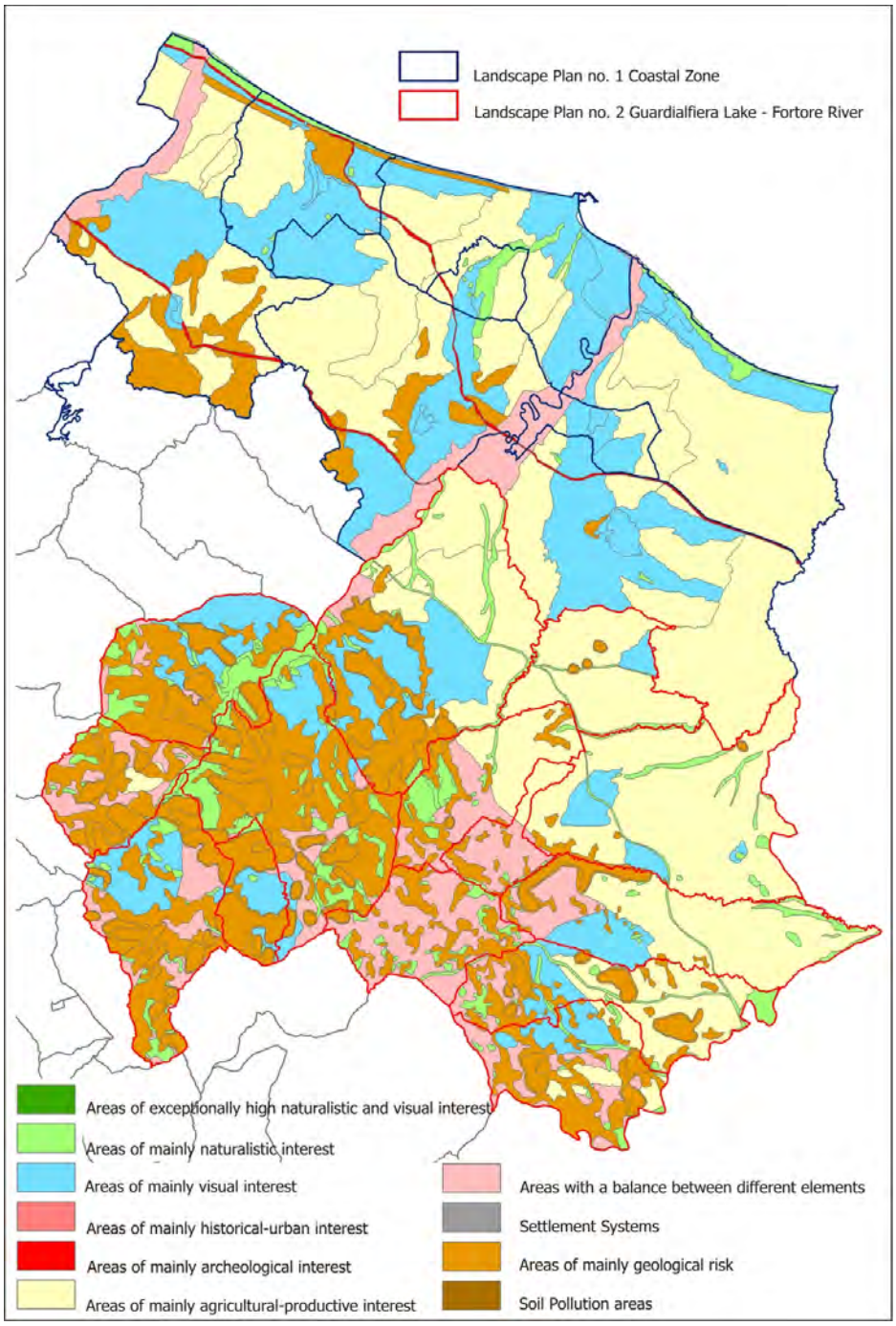

Fig. 3 The Transformability Map of the Vast Area Landscape Plans in the Molise Coastal Zone

The objectives identified are also related to the government of the processes of urbanization and abandonment of the territory and to the preservation of material cultural values and intangible values such as the traditions and history of the Region.

The definition of the landscape aims was achieved after the phase spatial analysis through the analysis of national and international case studies of good territorial governance (Casarotto *et al.* 2009).

The work group of the l.a.co.s.t.a. laboratory has identified a general objective for each resource system in which it was organized the analysis phase (Cialdea, Maccarone 2012, 2013).

The general objective was subdivided into specific objectives, as shown in Table 1.

RESOURCES SYSTEMS	GENERAL AIMS		SPECIFIC AIMS	
Physical-Envronmental System	1	Promote the preservation of the integrity of areas of high naturalness and high ecosystem value	1.1	Safeguard geological-geomorphological systems with high integrity (geological formations, ravines, cliffs, crags)
			1.2	Safeguard protected areas and areas of high environmental value such as those covered by the Nature 2000 Network
			1.3	Safeguard and improve environmental functionality of river and lake systems of Molise
			1.4	Safeguard and rebuild coastal marine habitats of Molise (coastal wooded areas, dune systems, river mouths)
			1.5	Safeguard woods and forests of mountainous and hilly areas of Molise
			1.6	Redevelop and redesign the coastal landscapes of Molise
Landscape-Visual System	2	Promote improved integration of landscape and the quality of infrastructures	2.1	Define territorial and landscape quality standards in the settlement of new network infrastructure
			2.2	Define territorial and landscape quality standards in the settlement of new energy infrastructure
			2.3	Define territorial and landscape quality standards in the settlement of new productive activities
Historical-Cultural System	3	Promote the preservation of cultural values	3.1	Preserve cultural value and witnesses of settlements and historical manufacts
			3.2	Preserve cultural value of traditional rural buildings
			3.3	Preserve the visible cattle-tacks rest
			3.4	Redevelop the historic rural landscapes
Agricultural-Productive System	4	Promote the conservation of agricultural landscapes	4.1	Develop the agricultural landscape of Molise, recognize and promote its social functions
			4.2	Preserve open landscapes of the reclamation as a characteristic aspect of identity of coastal landscape of Molise
			4.3	Redevelop the agricultural landscape of Molise
Demographic-Touristic System	5	Promote the improvement of the quality of the settlements	5.1	Improve quality of urban settlements and their environmental performance, for greater well-being of the population
			5.2	Redevelop degraded contemporary urbanization landscapes
			5.3	Improve urban quality of and touristic settlements
			5.4	Improve urban quality of agricultural and productive settlements
			5.5	Improve soft mobility quality (walking, cycling, trekking on horse) and its interconnection with the traditional mobility

Tab.1 The landscape quality aims declined for the five resources systems in which have been organized spatial data analysis carried out

Lastly, these objectives were finally associated with landscape quality directions that indicate policies to adopt and those who have an interest in achieving these objectives, as well as the measures required to adapt the urban planning instruments to the indications of the new Regional Landscape Plan.

Therefore, the landscape quality targets in this area aim to safeguard the surviving heritage in the area, to recover and improve the landscapes altered and degraded by human activity and to define quality standards for the correct insertion of new energy infrastructure in the coastal territory (Di Bene *et al.* 2006, 2007).

Finally, the landscape quality objectives aim to identify, in the sense of Art. 136 of the Urbani Code, the criteria on which to base the identification of areas to be protected through the need to initiate proceedings

for the declaration of significant public interest for "complexes of buildings with a characteristic appearance having aesthetic and traditional value, including historical towns and nucleuses " and for "scenic panoramas and also public viewing points or lookout points from which such beautiful sights can be enjoyed" and dictate the rules to ensure the preservation of the values expressed by the peculiar characteristics and aspects of the territory concerned.

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IMAGES SOURCES

Fig. 1: Orthophotos Molise Region 2008, ARPA Molise Region, our elaboration.

Fig. 2: Vegetation Map Molise Region, 1954; Corine Land Cover Map 2006; a: Guardialfiera Lake; b: Industrial Area; c: Lido of Termoli; d: Lido of Campomarino; e: agricultural area along the L'Aquila-Foggia cattle-track our photos 2010 and our elaboration.

Fig. 3: Trasformability Maps of Vast Area Landscape Plans no. 1 and no. 2, our elaboration.

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