

URBAN AND LANDSCAPE PERSPECTIVES

Roberto Gambino · Attilia Peano (Eds.)

Nature Policies and Landscape Policies

Towards an Alliance

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Urban and Landscape Perspectives is a series which aims at nurturing theoretic reflection on the city and the territory and working out and applying methods and techniques for improving our physical and social landscapes.

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The series will face emerging problems that characterise the dynamics of city development, like the new, fresh relations between urban societies and physical space, the right to the city, urban equity, the project for the physical city as a means to reveal civitas, signs of new social cohesiveness, the sense of contemporary public space and the sustainability of urban development.

Concerned with advancing theories on the city, the series resolves to welcome articles that feature a pluralism of disciplinary contributions studying formal and informal practices on the project for the city and seeking conceptual and operative categories capable of understanding and facing the problems inherent in the profound transformations of contemporary urban landscapes.

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Cover image: Po River Regional Park from Crescentino's bridge, near Turin (Italy).

Photo by Ippolito Ostellino, 2010.

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With great affection we remember Attilia Peano – former Full Professor in Town and Regional Planning at the Politecnico di Torino (DIST) and CEN PPN Director – and the precious contributions she has given during the course of her life in the field of urban planning, landscape planning, and nature and cultural heritage conservation, being a protagonist in the debate on these topics at national and international level. Her death (18th August 2013) interrupted her participation in several research activities which are still ongoing, and, in particular, in the international research, that has been carried on by the CED PPN since 2010, concerning the relationship between Landscape policies and Nature Conservation policies.

This book is the outcome of this CED PPN research, and we would like to dedicate it to our friend and colleague Attilia, hoping in this way to remember her passion and her valuable guide in facing the subject here presented.

Roberto, Gabriella, Emma, Luigi

Foreword

Since the beginning of the 1990s, the European Documentation Centre on Nature Park Planning (CED PPN, DIST, Politecnico and Università di Torino) has conducted ongoing research into nature and heritage conservation policies and their relationship with urban and regional planning. Particular attention has been given both to European parks and other protected area¹ policies and to European landscape² policies.

In 2008, CED PPN launched an innovative research programme concerning the *connections* between nature conservation policies and landscape policies. This is a major subject since the risks related to global change and the continuous worsening of environmental conditions challenge the effectiveness of area-based nature conservation policies, demanding that they be ‘territorialized’, thereby overcoming the traditional separation of protected areas with respect to the wider context. This demand is at the basis of the so-called new conservation paradigm (5th IUCN World Parks Congress, Durban 2003). Landscape, as a bridge between nature and culture, could play a crucial role in this direction, helping conservation policies to open up to the territorial, social and economic context, extending their scope and improving their effectiveness. Protected areas, in turn, could act as extraordinary learning laboratories for landscape policies, giving them the regulatory capacity generally gained over the course of a long history of policies and planning. Since 2008, this research programme has been discussed at several international meetings such as the 4th IUCN World Conservation Congress (Barcelona 2008) and the 5th IUCN World Conservation Congress (Jeju 2012).

¹“A protected area is a clearly-defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values” (Dudley, N., Ed., 2008. Guidelines for Applying Protected Area Management Categories. Gland, Switzerland, p. 8).

²Landscape means “an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors” (Council of Europe, European Landscape Convention, 2000, art. 1).

In the context of this activity, in 2010 CED PPN, in order to take stock of considerations, research and experiences at the international level in relation to the above-mentioned theme, invited a wide group of experts in different disciplines (architects, planners, geographers, biologists, ecologists, historians, jurists, economists, sociologists) from various institutional bodies (universities, administrative authorities, international organisations such as IUCN, EUROPARC, UNESCO, UNISCAPE and others) to participate in a ‘research book’ project. The experts were asked to deal, starting from their disciplinary background, with the main research thesis – concerning the possibility and opportunity of an alliance between nature conservation policies and landscape policies – and with its political, social, scientific and cultural implications. The idea behind the project was not to draw up a comprehensive, unified proposal on the issue to be subsequently published and discussed but rather to start – on the basis of a book – a process of dialogue stimulating the critical enrichment of existing knowledge on the matter and inspiring further debate.

The most interesting considerations gathered since 2010 are presented in this book, which is a ‘research book’ in the true sense in that it collects and makes it possible to compare a set of varied contributions on the subject, highlighting agreements and convergences as well as disagreements and divergences about the proposed nature-landscape alliance.

The contributions, after an introduction (Gambino) which presents an overall line of reasoning, are divided into three main parts.

Part I – New Paradigms. In this first part, some general and theoretical considerations about the current and potential relationships between nature conservation policies and landscape policies are reported. Experts discuss the new cultural paradigms that might form the basis of the envisaged alliance. This topic is approached with reference to

- Diverse geographical contexts: the global context (Phillips, Brown, with reference to some international tools such as IUCN Category V, Protected Landscapes), the European context (Ritchie, starting from the EUROPARC Federation experience), the US context (Bray, with reference to the role of a large landscape conservation approach in protected area policies)
- Diverse disciplinary backgrounds such as ecology (Gibelli and Santolini, who analyse the role of ecological functionality for landscape conservation; Guarino et al., who deal with the conflicts between human activities and ecosystem conservation), law (Desideri, who focuses on the legal framework for a comprehensive approach to nature conservation and landscape protection), architecture (Buyck and Vales, who analyse the concept of landscape, also in relation to its design), geography (Raffestin, who explores the role of landscape image in understanding territorial reality)

Part II – From Nature to Landscape and Back. In this second part of the book, experts discuss the mutual interactions between nature policies and landscape policies, focusing on three main topics: (i) regulations and institutional frameworks, (ii) policies, (iii) actions and tools.

With reference to *regulations and institutional frameworks* (i), the book gathers contributions concerning different geographical contexts: the global context (Andrian and Tufano, with reference to the relationship between Biosphere Reserves and protected areas), the European context (Angelini, with specific reference to the Alpine Convention; Romano and Zullo, who focus on the relationship between protected areas, EU Natura 2000 sites and landscapes) and some specific national contexts (such as the Netherlands and the United Kingdom in Voghera or Italy in Moschini and in Besio).

As far as *policies* (ii) are concerned, contributions deal with

- Policies concerning specific landscape types (the urban landscape in La Riccia), particular territorial or institutional contexts (the Andalusian vegas and delta areas in Miguel and Perèz Campaña, the Switzerland institutional system in Hammer and Leng), protected area types (the IUCN category V protected areas – Protected Landscapes – in Salizzoni)
- Policies concerning wider issues such as the strategic role of tourism in protected areas (Danelutti et al., Coda Zabetta), governance processes and community participation for nature conservation (Weizlbaumer et al., Barbera et al., Salvatore, Brunetta), the ‘sense of limit’ in landscape planning and design (Mazzino), biodiversity policies for landscape conservation (Ferroni et al., Seardo), the concept of protected areas as ‘nodes’ of networks extended beyond their boundaries (Pigliacelli and Teofili), the role of cooperation policies for landscape management (Nicoletti)

With reference to *actions and tools* (iii), experts present and discuss methodologies and instruments concerning landscape planning and nature conservation in their relationship (Paolinelli, Castelnovi, Sargolini, Tosini, Dudley and Stolton, Laven et al.), also focusing on specific aspects such as visual perception analysis of landscape (Franchini and Greco), management and planning of landscape scenic values (Cassatella) and cultural heritage enhancement (Beltramo). This section also includes contributions on environmental and landscape assessment (Bravi and Gasca, Bottero et al.) and on financing of nature conservation policies (Cetara).

Part III – Experiences and practices. In the third part of the book, a number of case studies, mainly regarding protected areas or special landscape and institutional contexts, are presented. They provide interesting examples of the integration of aspects and policies related both to nature and landscape (Godone et al., Vinardi, Deambrogio and Zocco, Balletti and Soppa, Gherzi, Corsani and Morelli, Martinelli and Simone, Pinzello, Matoda). Some of the case studies allow also to discuss specific issues such as the relationship between energy production and nature-landscape conservation (Natali and Silvestri, Mininni and Rizzi) or the connection between tourism and nature-landscape conservation (Calcagno Maniglio and Simone, Valle and Dongiovanni).

As a ‘research book’, this publication does not set out to exhaust the topic of the relationship between nature conservation policies and landscape policies. Rather, it aims at opening up some lines of enquiry into the matter, orienting research efforts

towards new possible directions. These lines of enquiry should take stock of the following ‘lessons’ learned from the various contributions, concerning

- The dynamic dimension of current problems related to the joint conservation of nature and landscape and consequently the need to always look to the future
- The strategic role of the diversification and integration of knowledge, visions and competences on the matter, adopting a multi-, inter- and trans disciplinary approach
- The need for trans-scale approaches (global, national, regional and local) in planning and managing nature and cultural heritage
- The crucial role played by the ‘project’ for a ‘good governance’ of the regional realities and thus the importance of identifying the values, aims, tools and, most importantly, actors to be involved in this challenge

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European Documentation Centre
on Nature Park Planning

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Roberto Gambino

Abbreviations

AECID	(Spanish) Agency for International Cooperation and Development
ANCSA	Associazione Nazionale Centri Storici e Artistici/Italian National Association of Historic and Artistic Centres
ANPIL	Aree Naturali Protette di Interesse Locale/Natural Protected Areas of Local Interest
APE	Apennines Park of Europe
APIs	Areas of Particular Importance for biodiversity and ecosystem services
BRs	Biosphere Reserves
CA	Conjoint Analysis methodology
CAP	Common Agricultural Policy of the European Union
CBA	Cost-Benefit Analysis
CBD	Convention on Biological Diversity
CCAs	Community Conserved Areas
CDCULT	Steering Committee for Culture (Council of Europe)
CDPATEP	Steering Committee for Cultural Heritage and Landscape (Council of Europe)
CE	Choice Experiments
CED PPN	European Documentation Centre on Natural Park Planning (DIST, Politecnico di Torino)
CEV	Corporate Ecosystem Valuation (WBCSD)
CITIES	Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973)
CLLD	Community-Led Local Development (ENRD)
CMS	Convention on the Conservation of Migratory Species of Wild Animals (or Bonn Convention 1979)

CIVILSCAPE	Non-governmental Organizations for European Landscape Convention
CNR-IRPI	Italian National Research Council, Research Institute for Geo-hydrological Protection of Turin
CoE	Council of Europe
CoM	Covenant of Mayors (EU)
COMPACT	Community Management of Protected Areas for Conservation program
COP	Conference of the Parties
COPI	Cost of Policy Inaction
CVM	Contingent Valuation Method
ECC	European Economic Community
ECTS	European Charter for Sustainable Ecotourism
EEA	European Environment Agency
EESC	European Economic and Social Committee (EU)
EGTC	European Grouping of Territorial Cooperation
EIA	Environmental Impact Assessment
ELC	European Landscape Convention
ENELC	European Network of Local and Regional Authorities for the Implementation of the European Landscape Convention
EPA	Enlarged Partial Agreement on Cultural Routes (Council of Europe 2010)
EPE	Environmental Protection Expenditure
ESPON	European Spatial Planning Observation Network (EU)
ESs	Ecosystem Services
EUAP	Elenco Ufficiale delle Aree Protette/Official list of Italian Protected Areas
EC	European Commission
EU	European Union
EUROSTAT	Statistical Office of European Union
FAI	Fondo Ambiente Italiano/Italian Environment Fund
GIS	Geographic Information System
GYE	Greater Yellowstone Ecosystem
HABAP	English Highway Agency (Biodiversity Action Plan)
HLF	Heritage Lottery Fund
HPM	Hedonic Pricing Method
IALE	Italian Society of Landscape Ecology
ICCAs	Indigenous peoples' and Community Conserved Areas and territories
ICOMOS	International Council on Monuments and Sites
IGMI	Istituto Geografico Militare Italiano/Italian Military Geographic Institute
ILNM	Federal Inventory of Landscapes and Natural Monuments of National Importance

INU	Istituto Nazionale di Urbanistica/Italian National Institute of Urban Planners
IPA	Indigenous Protected Area (Australia)
IPAL	Integrated Programme on Arid Lands of UNEP
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
ISOS	Federal Inventory of Swiss Heritage Sites
ISPRA	Istituto Superiore per la protezione e la ricerca ambientale/ Institute for Environmental Protection and Research (Italy)
IUCN	International Union for Conservation of Nature
IUCN-Med	IUCN Centre for Mediterranean
LCA	Landscape Character Assessment
LC	Landscape Capacity
LCC	Landscape Conservation Cooperative
LVIA	Landscape and Visual Impact Assessment
MaB	Man and Biosphere UNESCO Program
MAP	Madrid Action Plan
MEA	Millennium Ecosystem Assessment (2005)
MATTM	Italian Ministry for Environment and Territory and Sea
MiBAC	Italian Ministry on Cultural Heritage and Activities
NE	Natural England
NiAs	Nature Improvement Areas
NCAAs	National Character Areas
NGO	Non-governmental Organization
NHA	National Heritage Area
NiAs	Nature Improvement Areas
NBSAPs	National Biodiversity and Action Plans
OECD	Organization for Economic Cooperation and Development
OEP	Arco Latino, Osservatorio del Paesaggio/Arco Latino European Landscape Observatory
PA/PAs	Protected Area/Protected Areas
PES	Payments for Ecosystem Services
PIT	Piano di Indirizzo Territoriale/Regional Design Plan
PEBLDS	Pan-European Biological and Landscape Diversity Strategy
PEER	Partnership for European Environmental Research (EU)
PoWPA	Programme of Work on Protected Areas (CBD)
PPGIS	Public Participation Geographic Information Systems
PPR	Piano Paesaggistico Regionale/Regional Landscape Plan
PPTR	Piano Paesaggistico Territoriale Regionale/Regional Territorial Landscape Plan (Apulia Region)
PSR	Piano di Sviluppo Rurale/Rural Development Plan
PTCP	Piano di Coordinamento Provinciale/Province Coordination Plan
SCBD	Secretariat of the Convention on Biological Diversity
SCIs	Sites of Community Importance

SCZs	Special Conservation Zones
SEA	Strategic Environmental Assessment
SEAP	Sustainable Energy Action Plan
SNB	National Strategy for Biodiversity
SPAs	Special Protection Areas
SUME	Sustainable Urban Metabolism for Europe project
TEEB	The Economics of Ecosystems and Biodiversity
TCM	Travel Cost Method
UN	United Nations
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples (2008)
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNISCAPE	European Network of Universities for the Implementation of European Landscape Convention
UNWTO	United Nations World Tourism Organization
USNPS	U.S. National Park Service
VC	Venture Capital
WBCSD	World Business Council for Sustainable Development
WCPA	IUCN World Commission on Protected Areas
WDPA	World Database Protected Areas
WHS	World Heritage Sites
WNBR	World Network of Biosphere Reserves
WWF	World Wide Fund for Nature
ZNIEFF	Zone naturelle d'intérêt écologique, faunistique et floristique/ Inventory of natural zones of ecological, faun and floristic interest
ZPPAUP	Zone de Protection du Patrimoine Architectural, Urbain et Paysager/Zone of Protection for Architectural, Urban and Landscape Patrimony

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Chapter 54

How to Manage Conflicts Between Resources' Exploitation and Identity Values

The Agri Valley Amid Oil Supply and the Lucanian Apennines National Park

Mariavaleria Mininni

Abstract In the mid-1990s, the valley landscape of Basilicata found itself at a crossroads between two contrasting development models. One was based on the supply of hydrocarbons, with a view to starting up a heavily industrialised process, whilst the other drew its inspiration from local development policies, based on nature tourism and high-quality agriculture. Basilicata attempted to find a middle ground, which could respect the principles of ecological, economic and social sustainability in agreement with oil company activity. Twenty years later, the Agri Valley is a far cry from achieving the following two goals for the future, putting itself forward as a model for a sustainable economy and becoming a large-scale centre for energy production. The construction of the biggest onshore extraction plant in mainland Europe in the heart of the Lucanian Apennines National Park is producing a serious environmental impact. If we consider the current political, economic and financial climate, the now well-established cultural concepts of *smart growth* and the OECD *Better Life Index* forecast, which considers the well-being industry and the *green economy* to be the main driving forces for the global economy over the next 20 years, does it still make sense to obsessively consider oil as the area's main driving force for growth? The aim of this contribution is to highlight and discuss the conflicts and paradoxes which stem both from different ways of interpreting the term resource and from the ambiguous nature of identity values in an area where resources' exploitation implies deeply contrasting notions of landscapes.

Keywords Oil • Royalties • Local development • Basilicata

R. Rizzi is the author of all thematic maps

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54.1 The Identity Features of the Area. Oil?

According to some local legends, which have been passed down through the generations, sightings of “tongues of fire” rising from the Apennine Mountain Range go as far back as the fifteenth century: we are here talking about the so-called torches which were actually methane burning as it leaked out from the earth’s surface.

The discovery of oil in Basilicata dates back to 1902 when the Military Mining Inspectorate of that time commissioned a report on the oil reserves in the municipality of Tramutola in the province of Potenza.

During the Second World War, the oil products of the Upper Agri Valley were mostly used to cope with the international embargo; in 1942, it produced at most 700 tonnes of oil. That is 7 % of national production at that time which reached a total of 10,000 tonnes a year.

It was, however, only through Enrico Mattei in 1958 that the search for reserves intensified, despite the rugged nature of the land, and the following year, significant oil and gas reserves were discovered in Grottole, Ferrandina, Rotondella and Pomarico in Basilicata.

The 1970s oil shocks led Europe to once again seek energy resources in safe territory.

A vast seismic prospecting campaign and perforation activity did not, however, bring important results until the 1990s and led to the discovery of five oil reserves in the Agri Valley and the Camastra-Alto Sauro area: Monte Alpi, Monte Enoc/Volturino, Cerro Falcone, Costa Molina and Tempa Rossa.

The Viggiano Oil Centre was built in 1996 in order to allow for the processing of crude oil and it has the capacity to process some 104,000 barrels a day. In 2007 some 32.35 million barrels were brought to the centre of Viggiano with some 95 million barrels being processed a day (Regional Government of Basilicata).

The production cycle consists of a gathering network; that is a series of wells from which crude oil is extracted which are connected to the Centro Olio Val d’Agri COVA (Agri Valley Oil Centre) by way of underground pipes. Today there are 39 wells in the “Agri Valley” plant of which 26 are currently in use.

After an initial treatment process, the oil is transported via a pipeline, which runs down the River Agri in the Agri Valley to the Taranto Oil Centre.

54.2 The Park, the Valley and the Extraction Basin

After a lengthy and much debated process lasting almost 20 years, in 2007 the Lucanian Apennines National Park-Agri Valley-Lagonegrese became the 24th and latest addition to Italy’s national parks (Presidential Decree 8th December 2007). The area, which stretches across some 45,000 h, is just one-third of the originally planned area. The lengthy, problematic and much debated institutional process,

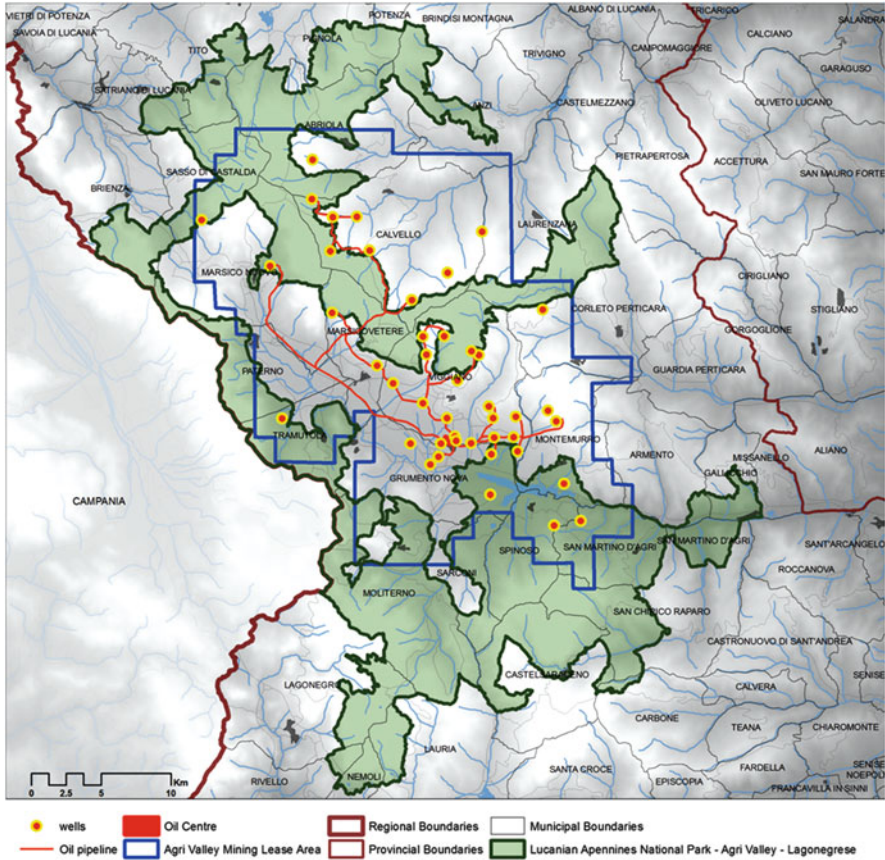


Fig. 54.1 Case-study area

based on the binding opinion of the municipalities involved, led to an irregular delimitation of the park due to requests for the exclusion of valley areas made by the municipalities of Sarconi, Marsico Nuovo and Marsicovetere and of much of the municipality of Viggiano where oil company activity already takes place (Fig. 54.1).

Following the creation of the park, seven of these sites now lie within the perimeter of the protected area.

A number of Sites of Community Importance and Special Protection Areas have not been included in the proposed delimitation of the park. A total of 29 municipalities¹ have a part of their territory within the park: seven sites are part of the Natura 2000 network (four sites of community interest and three special protection areas),

¹The municipalities are Satriano, Lagonegro, Moliterno, Sarconi, Anzi, Paterno, Nemoli, Spinoso, Marsico Nuovo, Marsicovetere, Grumento Nova, San Martino d’Agri, Montemurro, Viggiano,

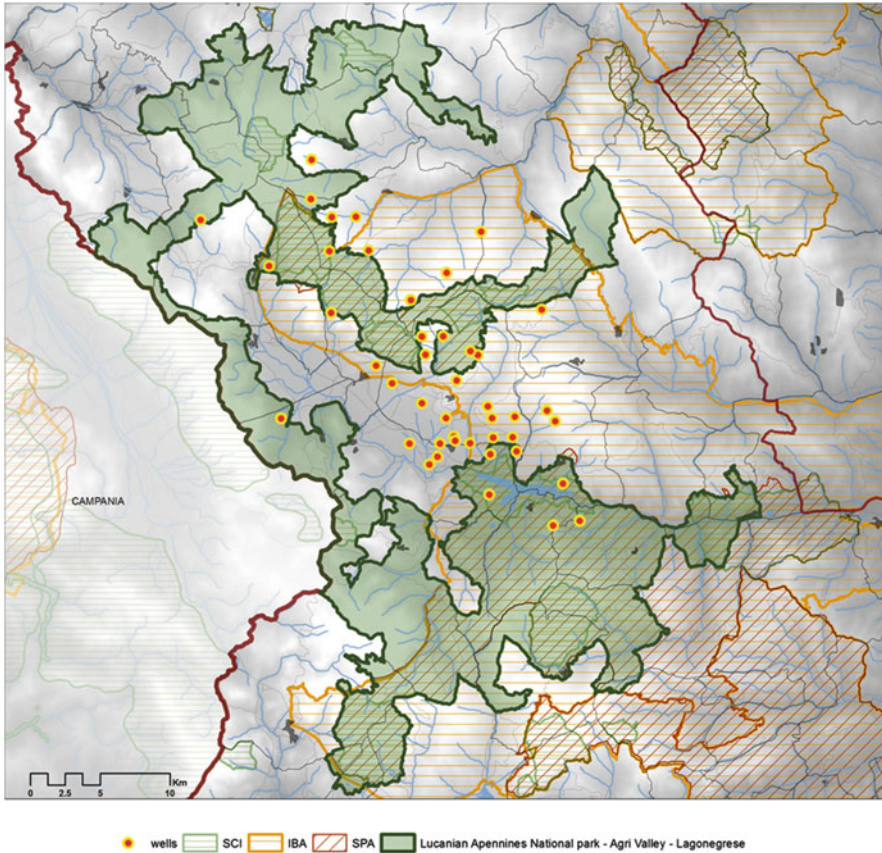


Fig. 54.2 Sites of community importance and special protection areas in the case-study area

and some areas which are included in landscape plans such as Mount Volturino and Mount Madonna di Viggiano, to the north, are part of the Sellata-Volturino-Madonna di Viggiano Landscape Plan (Fig. 54.2).

The original delimitation of the park took the natural conformation of the area into account. It spanned across three river valleys, the Basento, the Agri and the Sinni, which are characterised by a unique wealth of biodiversity. Indeed, the area is home to a wealth of flora with numerous plants endemic to the Balkan Peninsula and the Mediterranean. It also stands out for its geological features, for its fauna (*Lepre Italica*, the Italian hare), for the dense vegetation which covers its mountainsides (beech forests mostly *Aquifolium fagetum*), not to mention its immaterial, historic and cultural heritage, which is kept alive through its traditions.

Tramutola, Sasso di Castalda, Gallicchio, Castelsaraceno, Pignola, Abriola, Armento, Carbone, Rivello, Calvello, Lauria, Tito, Brienza, San Chirico Raparo and Laurenzana.

The central part of the Agri Valley, which is also the most anthropised area where the extraction and processing of oil takes place, remains excluded. The delimitation of the park is the fruit of numerous compromises, omissions and negotiations: in the end the northern part will be linked to the southern part by the ecological corridor between Paterno and Tramutola.

The park is located at the centre of a complex system of parks and protected areas of important environmental and nature-related value: to the south the Pollino National Park, to the west the Cilento and Vallo di Diano National Park and the Gallipoli Cognato Regional Park to the northeast.

The park area is, therefore, influenced by the flora and fauna of surrounding parks, and this ensures genetic exchange between the populations hosted in this vast system of protected areas.

At a national and European level, thanks to its strategic position, the park plays a vital role in strengthening the network of parks and protected areas in the APE Apennines Park of Europe. Indeed, it acts like a bridge between the southern ridge of the Apennines overlooking the Tyrrhenian Sea and the one facing the Ionian Sea. It serves as an ecological corridor between the parks in the Apennines of Basilicata, the Cilento Park to the north and the Pollino Park to the south (Stanzione 2007).

What is more, the area must deal with difficult issues associated with the risks it faces. Indeed, the area is subject to environmental risks, hydrogeological risks and water risks and the entire park is characterised by severe instability. Some mountain villages, which act as morphological divides between water catchment areas, and urban settlements and infrastructures in the valley are consequently at risk of flooding.

The area is also considered to be extremely dangerous due to its elevated seismic risk values.² Furthermore, there are numerous uninhabited homes, and in some municipalities, these can amount to as much as 50 % of all housing. This figure is not only an indicator of depopulation but also the result of financial incentives provided for rebuilding after the 1980 earthquake.

54.3 A Conflict of Interests Within the Same Territory: Protected Areas and Oil Extraction

The nature conservation strategies within the framework of regional park policies are inextricably linked to territorial development policies and to the coordination of other sectoral policies. This is necessary if we are to attempt to reach some form of coherence and compatibility with the vision of Basilicata as a Green Region, which regional authorities have always striven to adopt.

² Regarding the Agri Valley, the ordinance places almost all municipalities in the 1st risk category, whilst only municipalities in the southeast belong to the second risk category.



Fig. 54.3 The area of *Grumentum*

In other words, also the archaeological area of *Grumentum* (Fig. 54.3), a Roman colony which was home to one of the most important cities in Lucania and located in the most southerly part of the Agri valley, there is also another story to be told; that is one in which the territory is working toward the definition of the identity values and assets which characterise this landscape.

For decades this area has been a battlefield for conflicting territorial and development plans. On the one hand, you have the outstanding natural beauty of its unspoilt natural environment. On the other hand, however, the area has oil reserves, which are also a natural resource. This story is not only linked to the relationship local inhabitants have with the representation of oil in the social imaginary but also to that of economies which would be capable of supporting a *place-based policy* and the taking on the challenge regarding the future of *rural inland areas* if conflicts were managed appropriately (Barca 2012).

Through two distinct memorandums of understanding³ (MoU) signed in 1998, the regional government of Basilicata, the State and the owners of the oil companies agreed to a detailed programme guaranteeing that the exploitation of oil reserves would go hand in hand with investments aimed at improving the natural and cultural heritage of the area. The agreement also included the recognition of royalties and the environmental cleanup of disused extraction sites: on the one hand, multi-sectoral measures were implemented for compensation, monitoring and environmental safeguarding; on the other hand, with a view to sharing the resources made available from ENI funds with the entire region, infrastructural projects were

³ Protocolli di Intesa (PdI).

implemented for the 30 municipalities identified by Regional Law 40/1995 as “areas or (basins) for oil extraction”.

It is not easy to deduce to what extent the exploitation of the natural resource petroleum can generate comparative advantages and economic growth and, thus far, unanimous agreement regarding this matter has not been reached (Percoco 2007).

Both awareness of the effect that petroleum extraction has on ecological, economic and social systems and public awareness of and participation in decision-making processes are of vital importance if trust and collaboration are to be established between territorial administration and the local population. This would not only facilitate social process but also the enhancement of the area in all potential directions.

The *AgriBioDiversity* study (2007) carried out research along these lines. This was followed by the project Action Plan for “*Biodiversità in Val d'Agri*” developed by the University of Basilicata in 2009 in collaboration with ENI, *Fauna and Flora International* and IUCN: the *World Conservation Union*. The aim of the study was to better understand the biodiversity of the area with a particular focus on the effect of petroleum extraction and processing on territorial transformation and ecosystem processes. The study attempted to analyse the effectiveness of the three main points considered in terms of environmental impact:

1. *Environmental compensation* (activities associated with supporting forestry policies: for the most part reforestation and forest viability)
2. *Environmental monitoring* (the implementation of an environmental monitoring system, set out in the MoU in 2000 but still incomplete⁴)
3. Programmes for the sustainable development of the area (planning the allocation of royalties)

If we consider the third point, we can see that over time objectives, procedures and planning strategies as well as the allocation of funds amongst those interested have been characterised by three different approaches.⁵

- *1999–2000*. In compliance with the provisions of Regional Law 40/1995, which establishes an annual fund amounting to 3 % of the quantity of liquid and gas hydrocarbons extracted (royalties), the *Plan for the use of the funds to develop economic activities and increase production and industry in the Agri Valley*⁶ 1999 defines their use in two yearly plans managed by the Department of Industry planning office. The 1999 Plan collects the applications made by the municipalities in the oilfield during an earlier consultation phase and then adopts a six-pronged approach.
- *2001–2002*. In the second half of the 1990s, following an extremely positive trend, the regional industrialization process which was based on the

⁴ ENI in Basilicata Local Report 2012.

⁵ Favia (2007).

⁶ Piano di utilizzo del fondo per lo sviluppo delle attività economiche e l'incremento produttivo ed industriale della Val d'Agri.

establishment of large nonlocal businesses suffered a crisis. As a result, the way royalties were spent had to change and this led to a rethinking of the regional development model which, in turn, led to the consideration of sectors which had, until that time, been neglected (agriculture and tourism). Through these sectors natural, entrepreneurial and local identity resources could be enhanced.

- 2003–2006. In recent years, the area as a whole has been subject to a special planning system, which refers to the use of financial resources from various sources. The *Agri Valley, Melandro, Sauro, Camastra Operational Programme*⁷ (OP) and the *Agri Valley Integrated Territorial Project*⁸ (ITP) are both currently under implementation. The use of royalties falls within a more complex planning framework: the Operational Programme encourages high-quality territorial development with a view to keeping and attracting human capital: company incentives are accompanied by a series of “context” initiatives which are aimed at the inhabitants and the territory.

In addition to ENI funds, the area of petroleum extraction currently benefits from further resources which come from the *Regional Programme for Innovation “Territory of excellence”*, cofinanced by the ERDF.

Of late, the future of the area has been something of a concern. ENI has started up the *Agri Valley Sustainable Development Project* (ASD) in collaboration with the regional government of Basilicata in order to reach a new shared agreement. On the one hand, this would allow for further mitigation of environmental impact and the development of territory through solid initiatives focused on higher levels of local employment and enterprise. On the other hand, it would help maintain production levels and allow for further development of the oilfield, thus preventing a 10 % yearly drop in production levels.

From this brief examination, we can attempt to deduce that (i) the culture of sustainability and the attention dedicated to places is effectively permeating the local production system, (ii) compatibility between safeguarding and development and their relaunch in terms of smart growth and sustainable growth represents the real challenge for the future of this territory, and (iii) greening strategies (relating to the economy and the social dimension) must become the driving force and guide criteria for the next regional planning process where a specific focus must be placed on cohesion policies in rural inland areas.

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