Planning Support Tools: Policy Analysis, Implementation and Evaluation

Proceedings of the Seventh International Conference on Informatics and Urban and Regional Planning INPUT 2012

edited by Michele Campagna, Andrea De Montis, Federica Isola, Sabrina Lai, Cheti Pira, Corrado Zoppi



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| Technical supports for Strategic Environmental Assessment process: a critical review from practical experiences | <i>"</i> | 19/1 |
| by Roberto De Lotto "Expert system" for environmental assessment | * | 1987 |
| by Elisa Valentini and Michele Sansoni | >> | 1999 |

| The decisions support scenarios in the first phases of the strategic environmental evaluation: the Barzio territory government plan experience by Pier Luigi Paolillo, Alberto Benedetti, Giorgio Graj, Luca | | |
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| Terlizzi and Roberto Bisceglie | p. | 2009 |
| Participation and consultation in the SEA process by Federica Isola and Cheti Pira | » | 2021 |
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| From information to evaluation: environmental opportunities and threats in the SEA of Genoa's municipal development plan by Cristina Giusso | » » | 2048 |
| SEA representation of Genoa's Municipality Urban Plan: criteria, methods and techniques by Fabrizio Esposito | » | 2059 |
| Use of GIS in Strategic Environmental Assessment: the Genoa City Plan by Lycurgo Vidalakis | » | 2073 |
| Environmental knowledge and normative potentiality of environmental components. A case study: the SEA of Genoa land use plan by Giampiero Lombardini | » | 2084 |
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| Open issues concerning Strategic Environmental Assessment of the adjustment process of the Sardinian municipality Masterplans to the Regional Landscape Plan by Cheti Pira and Corrado Zoppi | p. | 2111 |
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Editorial note

This book contains the essays of the INPUT 2012 Conference organized as follows.

In the introductory section the Editors of this book propose six position papers concerning general issues related to the Conference's themes: Michele Campagna treats Planning Support System and related open issues for research, education and the planning practice, Andrea De Montis argues on key issues concerning human settlements in rural-urban settings and emerging from the INPUT 2012 Conference. Moreover, Federica Isola describes the role of regional governance in planning processes, Sabrina Lai's contribution concerns spatial visualization in planning-related research and the INPUT 2012 Conference, Cheti Pira's essay is about key elements in the SEA process, and, finally, Corrado Zoppi addresses the question of planning theory and practice and the INPUT 2012 Conference.

Five other position papers by the invited speakers complete the introductory session, as follows: Alison Brown proposes a reflection on challenges of development and underdevelopment in a globalizing world, Arnaldo Cecchini addresses new technologies in the INPUT 2012 Conference's environment, Bin Jiang treats the computational issues related to the image of the city, Robert Laurini discusses the importance of spatial relationships for geographic ontologies, and Yap Kioe Sheng's essay is about housing the poor in Asia's globalized cities.

The following sections of the book are articulated according to the Conference's themes, as follows.

- Section one: Accessibility and planning.
- Section two: Assessment of public programs.
- Section three: Cultural heritage.
- Section four: Landscape planning.
- Section five: Landscape, rural and urban planning.
- Section six: Planning support systems.

- Section seven: Remote sensing and other tools to analyze and represent space.
- Section eight: ICT as a tool to support planning processes: the case of the Regional Administration of Sardinia.
- Section nine: Spatial data analysis.
- Section ten: Spatial statistics.
- Section eleven: Considering 3D in spatial planning and geo-information delivery.
- Section twelve: From location-aware technologies to open data: toward a new urban research agenda.
- Section thirteen: Innovation in spatial governance.
- Section fourteen: Safer and accessible cities.
- Section fifteen: Smart people in smart cities.
- Section sixteen: The spatial strategies of the Italian Regions.
- Section seventeen: Tools and methods for sustainability in planning processes.
- Section eighteen: Sustainable development.
- Section nineteen: Transports and logistics.
- Section twenty: Transport planning.
- Section twenty-one: Trends in Strategic environmental assessment.
- Section twenty-two: Urban planning and innovation potentially induced by Strategic environmental assessment.
- Section twenty-three: Urban development management.

All of the Conference's essays were reviewed through a blind peer refereeing process.

Promoting local development through a new representation and interpretation of the context: the Val d'Agri case

by Piergiuseppe Pontrandolfi¹ and Antonella Cartolano¹

The efficacy of planning for the promotion of local development is significantly related to the ability of identifying suitable areas for local plans and policies.

Reflections on "relevant territories" reveal the existence of a plurality of spaces characterized by variable geometry without a unique identification of the intervention area within administrative boundaries.

The need to improve means and tools of governance no longer appropriate for today's urban and regional dynamics is necessary and leads to experimentations that offer analysis and interpretation models of the territory and its governance models. In this sense, the size for the supra-territorial government has a special interest.

This contribution examines the issue of the definition of relevant areas for appropriate local development planning tools, to develop proposals for the specific local context: Agri Valley in Basilicata. Based on a consistent cognitive framework supported by a Geographic Information System (GIS) we developed proposals to enhance the tourism sector of the area in order to help in the identification of the "relevant territory" and an appropriate governance model with the spatial indication of strategic planning tools — which are divided between inter-municipality scale to the municipal one.

Introduction

The local dimension of development, even in a global framework of re-

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lationships and interconnections, is a topic of great interest for the discipline of planning, opening new scenarios especially for the effectiveness assessment of planning. In this sense, the traditional articulation of planning levels should be the subject of a reconsideration, especially in those territories still characterized by accentuated phenomena of backwardness in terms of economic development or by marked imbalance in terms of services provision and accessibility planning.

The identification of local systems for the wide area government, not consistent with the traditional provincial administrative boundaries, represents an attempt to overcome the rigidity of institutional predefined geographical areas and to identify "relevant areas" for the promotion of sustainable development local self-sustaining (Dematteis, 2003).

Identifying a territorial dimension which facilitates the integration between the social and economic planning and scheduling of resources poses significant environmental and territorial issues and implications for technical and political dimension.

With reference to the first aspect is to reconsider the geographical and institutional framework of the local autonomy, avoiding duplication of roles, functions and powers. The aim is to identify spatial and institutional dimensions able to pursue and implement real forms of territorial government in reference to the actual ability to manage resources and to plan for their use.

For the discipline, building on recent experiences of negotiated and strategic planning, we have to identify tools and procedures ensuring greater efficiency in local development processes, especially in the opening of the new season of EU programming and with particular reference to the southern regions, proposing the centrality of economic and territorial planning process inspired by a renewed culture of the plan (Las Casas, 2006). In particular, the relationship between strategic dimension and structural and operational planning should be investigated.

The demonstration of the usefulness of planning in local development processes, necessarily supported by new forms of governance, can not fail to contribute to the renewal of politics as the government capacity for social and economic territories.

Relevant territories promoting local development policies

The organization of the globalized economy finds a new relationship with the territory in the local development strategy for a new balance of economic sustainability and human development.

Any economic, social and cultural policy, wishing to be effective, must take care of the land seen not only as a product of the human action, but also as a means and a matrix of a future which includes expected life conditions. In order to improve the environment and the society and to produce culture and economic development it is necessary to take action on "territoriality", understood as the dynamic relationship between social components (economy, culture, institutions, powers) and what material and immaterial, alive and dead, belongs to the areas where you live (Dematteis, 2003).

An active and "in positive" territoriality is considered (Raffestin, 1981) as a «set of relations that arise in a space-time dimension in order to achieve the greatest and possible autonomy compatible with the system's resources».

The concept of "active territoriality" refers to the ability to analyze and describe the reality and the socio-spatial potentials, partly already existing or to be built, starting from the same systems which are destined to become actors in local development policies at provincial, regional, national and European levels.

The image of the Local Territorial System (SLoT), put up mindeffective from a national search PRIN-MIUR², is constructed out of something that exists in reality and such basis in the existing design ensures the effectiveness of its construction.

The identity of the SLoT is defined not only in terms of a sense of belonging, that is something essentially based on the memory of the past, but also in terms of organization of the system, *i.e.* a sense of cohesion and continuity into the future and a capacity, often explicit, conscious of self-representation, interacting with similar ability of over-local territory, respecting formulas of cooperation, conflict and negotiation³.

In this sense, it is not the case of identifying an existing territorial system, but to find a series of clues and subjective and objective preconditions that make possible and highly likely the construction, in a given geographical area, of a territorial system able to achieve development goals autonomously. We look at an area where it is possible to promote good policies

² National Research entitled "Slot. Local systems in development", co-financed by MI-UR held during 2000-2002. It was coordinated by Giuseppe Dematteis, Polytechnic of Turin, and was attended by the Research Unit of the University of Turin, Novara, Bologna, Florence, Naples "L'Orientale", Foggia and Palermo.

³ The ability to self regulating and self projecting is the true object of analysis for local systems, while the geographical identification of the local systems themselves as spatial extent is just the tool for discovering and describing the local forms of territoriality active, the mode of operation of local organization and local identities as resources to attract and guide the development process.

and effective actions for the development, starting from the construction of credible and shared strategic projects.

From an analysis of territorial aggregations of private and public subjects that have already produced projects and from actions related to the general category of local development, we have to evaluate the significant thickening of such actions in certain areas. This is to define a first geography and local self organized trends to probe the response of the system through the promotion of integrated and multi-sectorial projects, trying to identify possible areas relevant in relation to specific interpretations of the components of the local milieu. These components, being not rigidly predetermined, are defining themselves in the construction process of the local collective actor starting from an initial hypothesis of territorial aggregation The supra-municipal level for effective local policies

The traditional operational schemes which link plans to administrative boundaries are superseded by the quest for flexible spatial entities, responding to the interpretation given of the territory, defined by consolidated relationships, from which a conscious project of territory may arise and be

In several European cases, the supra-municipal dimension is preferred in order to pursue the effectiveness, efficiency and sustainability of local development, through a process of territorial planning and programming of strategic value⁴.

In the French case it is interesting the foreshadowing of geographical areas for local development, to promote a bottom-up reorganization of the territories from the construction of durable and sustainable development projects (Merlin, 2007). Central is the formal recognition of supramunicipal territories which are responsible for the formulation of a strategic tool as a hub between strategies in multi-scale and local actions, according to a conception shared and integrated⁵.

The SCOT (Schéma de Cohérence Territoriale) «urban strategic planning tool that determines a project aiming at putting in consistency sectorial policies on urban planning, housing, travel and commercial facilities, in a

⁴ For example *Pays* and *Contracts de Rivière* in France and *Comarcas* in Spain.

⁵ The French duo SCOT – EPCI (Établissement publics de coopération intercommunale) is the obvious combination of the relevant territory and broad strategic approach.

protected and enhanced environment» (Benoit, 2001), divided into two main planning documents affecting the territorial area over city, voluntarily identified by co-local communities⁶, is both a strategic plan for sustainable development and a document of regional planning with an indication of the broad spatial organization pursuing defined strategies⁷.

The new logic of planning, based on the structural elements of the territory, argues in a perspective that goes beyond the time dimension, embraces different levels of intervention and integrates sectorial policies. Again, the success of the development project is conditioned by the actual relevance of the territory (Cremaschi, 2005).

Recently, also in Italy a widespread experimentation of new dimensions for local development has been developed especially in relation to the season of negotiated programming and strategic planning, also in connection with EU programs.

The purpose of the initiatives were to start processes of promoting local economic development projects that may represent a reference for the different sector policies and for which the instruments of physical planning should promote conditions because the territory could be adapted for the implementation of various intervention strategies. Many of the strategic planning experiences have proved to be ineffective and not incisive.

In some cases, initiatives will then collide with a not adequate system of institutional governance, where there are conflicts of jurisdiction among the various institutions involved rather than true forms of cooperation and conciliation.

Strategic and structural planning⁹ is to be intended as the collective con-

⁶ PADD (*Projet d'Aménagement et de Développement Durable*) et DOG (*Document d'Orientations Générales*).

⁷ The study of form and content of the SCOT and EPCI has been done as part of an internship at the CARF (*Communauté d'agglomération de la Riviera Française*), EPCI involved in the drafting of the SCOT and the Riviera Française de la Roya (Department of Alpes-Maritimes Region PACA).

⁸ It was often a schedule that offers very credible and realistic development scenarios, which contains approximate and vague references to the conditions and context to the real questions expressed by the communities concerned, which refers to generic financial resources and often improbable, plan more related to the construction of useful proposals impromptu intervention to drain public resources and, often, to encourage coalitions of private interests so little transparency.

⁹ The term "structural" is now consolidated in the applicant and its meaning to describe a tool that looks up to the more stable components of an area, with attention not only to infrastructure (physical space and artifacts), but also to structures (space economic activities and organizations), the term "strategic" is used as an adjective in agreement that qualifies the chosen plan, emphasizing the importance of relapses in a structured framework of objective.

struction of a shared vision of the future of a territory through processes of participation, discussion, listening. It is a pact between directors, actors, citizens and other partners to achieve this vision through a strategy and subsequent series of interrelated projects, justified, evaluated and shared, and finally it is the coordination of the mandatory hiring of responsibility of different actors in the realization of these projects (Camagni and Gibelli, 2005).

The study case: the "Val d'Agri"

Preliminary Document in the Structural Plan of the Province of Potenza (Pontrandolfi, 2007) offers an articulation of the province in several local systems. These areas should be considered not as rigid institutional areas, but rather as territorial divisions with "variable geometry", in relation both to the different policies and development strategies to be implemented. In particular, as indicated by the aggregation of 31 supra-municipal area, to stimulate a substantial strengthening of the province urban structure and a better distribution of job opportunities and basic services, the basic structure of the mesh of local systems is indicated, as larger municipal units over which to report and articulate the main strategic policy development and interventions in their implementation.

That proposal is now a real opportunity to start trial operation in respect of the preparation of the Intra-municipality Structural Plan of the Val d'Agri based on a Memorandum of Understanding signed by the Basilicata Region, the Province of Potenza, the Regional Park of the Lucan Apennines – Lagonegrese and 22 Municipalities.

The Agri Valley, located in the southern Basilicata and characterized by important morphological emergencies that are the natural boundaries and identity elements, represents an area of particular interest for the whole Region due to the presence of a significant wealth of natural and anthropogenic, for local development processes, the role of the hinge area in relation with neighboring Campania and also for the presence of significant oil extractions.

tives (Cicerchia, 2000). The strategic planning process of a resident in the acquisition of general and specific objectives to be pursued on the basis of a wider sharing and participation and the consequent and consistent definition of actions and interventions to be implemented to achieve the same goals (having identified the means and resources and set priorities and time in implementation thereof), a certain degree of strategic importance is, by definition, and even with different content and mode of explanation, in any act of planning.

The territory of the Val d'Agri has been recently affected by a number of programming tools, with reference to different institutional boundaries with overlapping problems connected to the absence of adequate physical planning strategies based on clear objectives. Many policy instruments have been often disconnected and sometimes competing and overlapping, poorly integrated and synergistic, with partial results and limited, and often below expectations.

The PO (Operational Programme Val d'Agri), PIT (Territorial Integrated Project Val d'Agri), POIS (Plans Offer Integrated Services Val d'Agri), PIOT (Integrated packages of Tourist Offer "Appennino Lucano Val d'Agri Lagonegrese") represent the multiple programming tools arranged in the implementation phase.

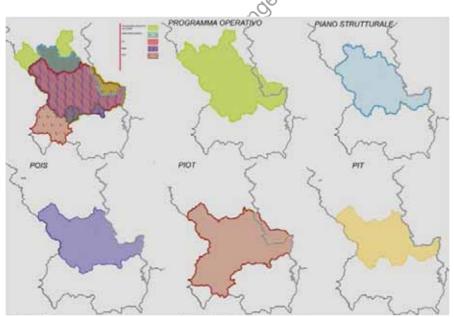


Fig. 1 – Framework for Planning in the Val D'Agri.

For these reasons there is a particular interest to find, now, in the starting phase of the PSI, the "relevant territory" to link a model of governance able to manage contradictions and potentialities and to represent the physical support for the various and multiple actions right now undertaken or to be programmed, considering appropriate planning tools.

All this in a situation with considerable economic resources made available from oil royalties.

Val d'Agri relevant territory

The research of a proper territorial dimension for developing new processes of effective planning in the Val d'Agri is based on an analysis supported by the implementation of a GIS, built with the aim to combine natural levels and structures (geographic and economic) with the cognitive and social elements (landscapes, ecologies, anthropology: Cremaschi, 2005) in order to strengthen relationships and to connect with the local dimension of the supra-municipal size.

In the construction of the cognitive reference framework the relevant themes are: the natural – environmental system and the landscape elements, the settlement and infrastructure system, the economic – production activities, facilities and equipment, aspects of the culture and the peculiarities of the territory.

The study produced an image of the area characterized by widespread natural heritage and landscape value, an interesting architectural heritage, a predominantly agricultural economy full of local specialties (wine and food and crafts), water and oil resources, against an economic and demographic stagnation not congruent with the potential development opportunities.

We developed an interpretation of the region's potential based on the principles of integration and enhancement of the main resources coherently to the overall objectives of protection and exploitation of resources in a sustainable perspective. We looked to the territory respecting the specific vocations and identifying characteristics to promote growth and development with particular attention to forms of eco-tourism.

The data collected and processed were organized according to three levels of detail relating to:

- an overview of the entire area in which major categories are reproduced using the elements that best represent the characteristics and values of the area;
- a deepening of the municipality scale where the data are of a more accurate description and location;
- a deepening of the elements of particular interest from the point of view of a tourist use by drawing cards, rich descriptions and iconographic documents, which have enriched the general data base.

The study of specific issues related to the tourism sector, such as the relief of the natural paths, personal services, accommodation and the facilities for tourists, has been finalized to build tools for adequate notice of the resources of the territory directed in particular to the potential user-user and also to investigate geographical areas significant to develop credible policies for development, through the construction of integrated or thematic

tourist packages. During the research the thematic itineraries have been developed (nature, taste, sport) offering a structured and flexible framework of possible ways of using space and resources. For each itinerary, through consultation of the database it is possible to identify the route, the mode and times of the journey, the opportunity to discover the typical features, if there are more opportunities to visit, thereby generating attention and interest of the potential user. The research has been completed with the definition of measures (mainly interventions), tangible and intangible, to ensure the effective implementation of the project and with the indication of possible funding tools.

A developed knowledge has been focused on the recognition of identity, on the invariants and structuring characteristics of the territory, the systematic analysis of the integrated resources and production and local social milieu, tools and models of interpretation are territorial, and it is also connected to the main programming tasks, which provide clues for the definition of the potential boundary of the "relevant territory" in the area.

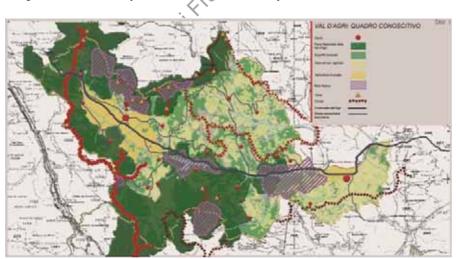


Fig. 2 – Summary table "knowledge framework" extracted by Geographic Information System

This territory, on the base of the analysis – ratings – interpretations developed, allow us to hypothesize a credible territorial area of interest comprising all the 19 municipalities involved in the Val d'Agri Territorial Integrated Project under OP ERDF 2000-2006, with some limited additions.

A renewed approach to strategic and structural planning for the Val d'Agri

The recognition of key features and of structural and unvarying territorial resources of the "relevant territory" have led to a first reflection, in the starting phase of the PSI (Integrated Structural Plan), about the nature of the large areas planning tool referring to the implications for the governance model collected in a Memorandum of Understanding.

The proposal is to imagine a tool that can facilitate a planning process with a strong multi-scale interaction and coherence between the strategic-structural dimension and the operational management and implementation of interventions (Pontrandolfi, Gerardi and Vita, 2006). More specifically the proposal includes:

- the scale of the entire affected area is considered as a strategic dimension to promote and animate a local development project that comes out from the territory and local communities in a strongly shared way, through credible development scenarios and appropriate assessments of the economic and financial resources;
- the physical planning and the territorial structure are generally based on the definition of the structural features of the area and have consistency with the strategic development choices, in particular on the smaller municipal aggregation scale in which the theme of the functional and services organization, employment opportunities and investments, an adequate internal accessibility are the bases for the main choices for settlement improving. The "territorialisation" of strategic choices can be realized at the scale of restricted territorial portions;
- at the municipal scale the actual operational plan develops coherently with the strategic and structural choices defined at a supra-municipal scale.

Conclusion

The work emphasizes the need for an appropriate relationship between the project area and the "relevant territory", overcoming the traditional relationship between institutional borders and the planning space.

EU planning has given strong impetus to local development and the supra-municipal scale appears to be privileged to host a regional strategic vision and to provide guidance to its pursuit.

In the case of the Val d'Agri, the path of finding a suitable geographical area for effective local development policies has just coincided with the start of the process of the PSI. The construction of an adequate, systematic and integrated knowledge concerning the resources and characters of the area allows us to develop local development projects/scenarios useful to probe the "relevance" of the territory for development strategies. The just started planning process refers to local governance instruments articulated on a strategic dimension implementing the operational plan, indicating levels of institutional responsibility and appropriate forms of institutional cooperation.

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From 10 to 12 May 2012 the University of Cagliari hosted the Seventh International Conference on Informatics and Urban and Regional Planning (INPUT 2012), organized by the Department of Civil and Environmental Engineering and Architecture (Dipartimento di Ingegneria Civile, Ambientale e Architettura) of the University of Cagliari and by the Department of Agriculture (Dipartimento di Agraria) of the University of Sassari. The general theme of INPUT 2012 was "Planning support tools: policy analysis, implementation and evaluation": after two decades characterized by the blooming of methods, technologies, and applications, researchers are now facing the complex issue of selecting, adapting, and integrating appropriate tools for specific stages and tasks in planning. New technologies, the main focus of the conference, play a prominent role in the innovation of planning theory and practice, as they affect every phase of the process: knowledge building, preliminary studies, design, decision, implementation, and monitoring.

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