

## Chapter 6.5

# Integrating ICT into Sustainable Local Policies

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### ABSTRACT

*This chapter analyses the Information and Communication Technologies (hereafter referred to as ICT) phenomenon, the opportunities it offers, the potential problems, and the relationship with local policies. It moves on the actions needed to develop, within the Agenda 21 process, a framework able to define some fundamental features for a new spatial theory in the information age, which will eventually consider Information and Communication Technology not just a simple tool, but a crucial aspect of a sustainable policy, capable, if well addressed, to mitigate various current or emerging territorial challenges such as literacy and education, public participation in the planning process, social and geographical divide, institutional transparency, etc.. This chapter will illustrate a framework able to assist politicians and planners in planning a sustainable development through ICT.*

### INTRODUCTION

As claimed by several authors, we live in the information age (Masuda, 1981; Castells, 1996, 2002). An era where knowledge and information have become key factors in the growth of contemporary society triggering socio-political and economical as well as cultural and spatial changes (e.g. the emergence of the space of flows, Castells, 1996).

On one side, new political and environmental challenges inspired by the acceptance of the sustainable development principles have induced governments and public authorities to open up access to environmental information as a means to improve public participation in environmental decision making and awareness. On the other side the growth of ICT is a tool that not only constitutes an industry in its own right but which also pervades all sectors of economy, where it acts as

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integrating and enabling technologies. ICT have a profound impact on society, and their production and use have important effects on the development of economic, social and environmental areas, promoting new questions discussed by theorists and planners. But the extent of ICT in everyday life and its strong relationship with socio-cultural and economic aspects produce a complex equation which is difficult to understand and solve.

This paper aims to explain some fundamental aspects about ICT, and to offer a framework that will allow: planning a sustainable policy; addressing ICT in a sustainable way; developing an analytical process of understanding environmental information use, and supporting public access, improving awareness and participation processes. This assumption is based on the current trend within public authorities to use ICT as a major delivery medium.

## **BACKGROUND**

### **Case Study**

The context is represented by a district near Rome: Parco Naturale Regionale dei Monti Lucretili. It is a mountain landscape including 13 Municipalities with a total extension of 18 hectares and about 35,000 inhabitants. Politically it is governed by the Park Agency. The administrative structure of this agency is a consortium formed by the representatives of the 13 Municipalities and by 9<sup>th</sup> and 10<sup>th</sup> Mountain Communities.

The territory has an agricultural and naturalistic vocation (Mantero & Giacopini, 1997). The naturalistic richness of the Park lies in the particular configuration of the pre-Apennine landscape, where the proximity to the sea has contributed to the formation and coexistence of biotypes determined by different microclimates, the latter given to different exposures and influenced by the variation of the circulation of the air masses within the mountain group. The current

vegetation features on Lucretili Mountains derive from a wavering series of events produced by human action leading to the change of the original aspects. Vineyards, cherry cultivation, and olive groves characterize these piedmont areas, with skilfully built terracing dating back to Roman times (Mantero & Giacopini, 1997). The vegetation is composed of large woods (beech, chestnut and hornbeam) and mountain pastures.

The labour market showed, in the last decade, a reduction in workers. A detailed analysis, shows that there has been a strong reduction for small and medium commercial concerns that is not compensated by the increase of other sectors as firms, utility companies, and tourism (Caperna, 2007). The local economy is characterized by agriculture: about 75% of the entire territory is agricultural with excellent products as olive oil, wine, orchards and citrus orchards; 10% sowable land, and 34% pasturage (Caperna, 2007). Finally activities linked to agriculture as bed & breakfast or trekking are proliferating (Mantero, 2000).

In synthesis the data describe an ageing of the population and economical difficulties. On the other side there are some aspects that should be meant as an opportunity: I mean natural treasures represented by natural landscape, food culture, few excellent agricultural products and the possibility of developing sustainable tourism.

With regard to development of tourism, we can talk about sustainable tourism if there is balance between environmental, social, and economical aspects of tourism, and the need to implement sustainability principles in all segments of tourism (WTO, 2004).

According to these principles, sustainable tourism should (WTO, 2004): make optimal use of environmental resources; respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance, and ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are

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