Chapter 16
ICTs and Participation in Developing Cities

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ABSTRACT
Developing cities are experiencing substantial gaps in urban planning. They are due to approaches and instruments that do not correspond to the realities of the developing city including the prevalence of informal sector and slums, urban governance problem, and few resources. Information and communication technologies (ICTs) now offer enormous possibilities to use information flows, communication, and land-use models better. ICTs offer solutions that take greater account of informal activities, enable discussions with civil society and Internet forums to take place, etc. ICTs can enhance the planning of developing cities, if conditions are right. The chapter provides a review of the situation in developing cities. It analyses the challenges and potential of using ICTs to improve urban planning. Lastly, it puts forward key conditions for the successful and relevant implementation of ICTs in order to create the best conditions for real technological added value.

INTRODUCTION
The objective of this chapter is to discuss the potential use of information and communication technologies (ICTs) in urban planning of cities outside Europe and North America that have the highest growth rates and the most chaotic processes of urbanisation.

New urban planning instruments are becoming available with the worldwide spread of ICTs. They make it possible to adopt innovative e-planning approaches, strengthen communication between urban stakeholders, and make communication available at various stages of the planning process.

At the moment, urban planning in developing cities has serious flaws and the most notable consequence of this failure is slums. In order to cope with urban planning in developing cities, it is crucial that we understand the mechanisms that contribute to these failures as well as the situation as far as informal activities and land tenure are concerned. One of the reasons for this is the lack of communi-
ICTs and Participation in Developing Cities

cation and information exchange between urban stakeholders.

In the future, it will be essential that we are able to put forward innovative solutions for urban planning. ICTs can play a crucial role, improving communication and information flow. However, ICTs will not be equal to this challenge on their own. They must be accompanied by more extensive approaches that meet the key conditions of tackling the challenges of urban planning in developing cities.

The chapter begins with a definition of the concepts of developing cities and slums, which are the most obvious manifestation of planning failures in developing cities. It also presents the case of the city of Thiès in Senegal, which will be used as an example to illustrate the theories we develop. The second part provides more detailed background information. It presents the planning instruments that are generally used in developing cities, the failure of these instruments and the reasons behind this failure. The second part also reviews some innovative approaches that deal better with slums and other informal conditions that are a general feature of developing cities. Part III focuses on future trends. It discusses the potential use of ICTs in developing cities and the key conditions for successful ICT implementation based on experiences conducted in West Africa and Latin America. The chapter ends with our conclusions about the potential of ICTs for urban planning in developing countries.

DEFINITIONS AND CASE STUDY

Developing Cities

World population was estimated at 6.7 billion on January 1st 2009. Three out of four people live in countries with an intermediate or low Human Development Index (below 0.8) and every second person lives in a city.

Cities outside Europe and North America are experiencing a population explosion. They are known as developing cities and double in size every 25 years on average and every 15 years in some regions (UN-Habitat, 2008). Megacities, such as Mumbai, Djakarta, Sao Paulo, Cairo or Lagos are the most impressive examples of rapid urban growth, but smaller cities face even higher growth rates and are home to more people overall.

Managing this high rate of change in urban sprawl and demography is not only limited by a lack of financial and human resources. Developing cities also have to cope with seasonal residents, informal market activities, a complex land-tenure situation, uncertain real estate conditions, corruption, complex governance questions, and diverse socio-political practices. These realities result in chaotic urbanization, social disparities, limited or dilapidated infrastructure, insufficient access to basic services, and numerous governance conflicts.

Slums

Slums are the clearer evidence of the failures of urban planning in developing cities. Slums are the result of various conditions including their precarious habitat, and their lack of ownership security and infrastructure. They are the materialization in habitat of a broader phenomenon - the informal sector. It is characterised by conditions that do not obey administrative rules and the law, but which are acknowledged and generally tolerated. The co-existence of informal and formal conditions and habitat is the core feature of developing cities.

Slums are mainly a result of uncontrolled urban sprawl. With high demographic growth, residents and new migrants look for attractive accommodation. They make arrangements to settle on the outskirts of town with farmers, neighbours, villages or local dignitaries although these do not formally own the land. They build temporary shelters or real houses as their own quick solutions for