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SOCIAL INNOVATION EMERGENCE IN A CONGOLESE URBAN TERRITORY WITH A PEASANT LIFESTYLE TO A SMART CITY

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Summary: The study deals with the local governance of an African city with a peasant lifestyle, likely to transition towards a smart, truly urban city. To resolve the problem of managing the still latent emergence of social innovation in southern countries, the study hypothesizes that these urban agglomerations will only be able to see their development come through social innovations, in the extent that the knowledge of the populations concerned is at the service of public power through participatory democracy. The study proposes the revision of the place reserved for the resident in the management of the city and a model of participatory democracy in a co-creation approach.

I. INTRODUCTION

Today, the problem of social innovation (Mumfor & Michael; 2002) still occupies a marginal place in economic theory (Djellal, 2012), but it constitutes an innovative element in a given context compared to the solutions generally provided. Social innovation represents a discontinuity, a break in the way of doing things (Bria, 2015). It is most often seen as a response to the failure of markets but also of the State (Gallouj, 2002, Mambisan, 2009), or even an alternative experience aimed at social changes (Bucolo, Fraisse and Moisset, 2015). Although it thus contributes to the well-being of individuals and communities (Klein, Laville, Moulaert, 2014), its practices stand in contrast to existing practices (Chambon, David and Devevey, 1982), since they are often non-standard, informal and unregulated. They can destroy individuals, the environment and communities (Leber & al, 2010).

The problem of this study is that of the emergence of social innovation in cities with a peasant lifestyle, where citizens bring new development ideas to public power to guide their transition towards smart cities.

To what extent does co-creation promote the construction of a smart city in logic of local governance and participatory democracy? is the question this study seeks to answer? The research starts from the hypothesis that social innovation being based on the provision of new responses to unsatisfied or poorly satisfied social needs (Baglioni & al, 2018), co-

creation only promotes innovation to the extent that it is at the service of a public authority (Howaldt & Schwar, 2010).

II. MATERIALS AND METHODS

We studied the possibilities for the emergence and participatory management of social innovation in the town of Kikwit in the Democratic Republic of Congo. Kikwit at the coordinates of 5° 02' 28" South 18° 48' 58" East-5.040981, 18.816191, this city of 92 km² in area with 4,323 inhabitants per km², subject to this study, is the main city of the province of Kwilu, one of the 26 provinces in the country. Inhabited by 3,675 inhabitants in 1943 and 600,000 inhabitants today, it is located on the banks of the Kwilu River. The city is connected to Kinshasa, the capital of the country, by national road 1 and separated by 400 kilometers to the West, and to the two Kasaï's to the East.

As for its history, Kikwit was originally a port depot of the Congo Free State for the transport of rubber and ivory. Once the State became a Belgian colony, Belgium, its former metropolis, established a European city and an indigenous city there. The indigenous city already had 600 factory and administration workers in 1910. The other characteristic of the city is that it is an intellectual center; it is considered a nursery of the Congolese intelligentsia (Yawidi, 2008). Among the methods used for collecting and processing research data, we deployed, among other things, direct observation of basic infrastructure, the city's mode of governance, and the lifestyle of residents.

Free interviews with local executives from the public and private sector followed by content analysis (Bardin, 2001) completed the observation effort. As for infrastructure, three categories were observed, including the city's road network, electricity, drinking water and sanitation. The participatory governance mode of the city was evaluated on the basis of the decision-making mechanisms of the city and the level of citizen participation (Arustein, 1969) in the decision-making process on issues relating to the problems faced by the inhabitants of the city.

Interviews with city residents at entry and exit points from the city made it possible to identify self-employment

opportunities for residents as well as the impact of their

activities on the environment.

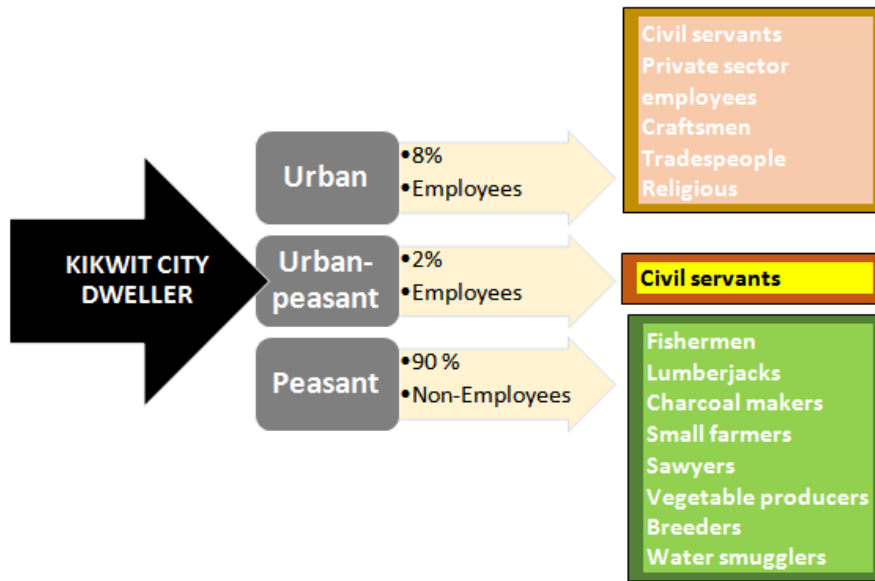


Figure 1: Categorization of the townsman

Local City governance

The City of Kikwit obtained its city status and was divided into municipalities by Ordinance Law 095/70 of March 15, 1970. It is headed by a Mayor, assisted by a Security Council and by various state technical services. It is divided into four Municipalities, each having several districts: Municipality of Kazamba with 4 districts including Lwano, June 30, Inga, Fac; the Municipality of Lukemi with districts: Wenze, Ndangu, Misengi, Nzundu, Etac, Ngulunzamba; the Municipality of Lukolela: Mudikwiti, Yonsi, Bongisa, Lunia and the Municipality of Nzinda with its five districts: Lumbi, Ndeke-Zulu, Kimwanga, Sankuru and Brussels.

As for the involvement of the actors (Freeman, 1984, Cornell, B., & Shapiro, 1987) of social innovation in the city, to identify social innovation, it is important to determine the interactions between several actors.

In the town of Kikwit, in addition to local residents, there are universities, hospitals, notoriety, national and international NGOs, churches, business federations, workers' unions, ethnic associations and mutual societies, parliamentarians, bilateral cooperation organizations such as Belgian Cooperation and USAID. All these local actors agreed that there was potential for social innovation.

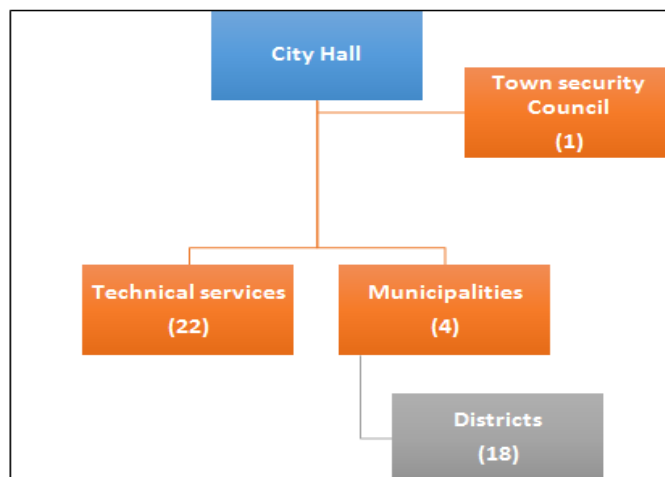


Figure 2: Structural model of city governance



Priority niches for social innovations

Six main problems residents face lie in two areas of social innovation (Levesque, 2002), new projects and institutional organization for local governance of the city. As shown in Figure 2 below, these issues concern electricity, access to safe water, city sanitation and hygiene, scientific research, local governance and employment. These problems can constitute real opportunities for the emergence of social innovation and local development in the city.

Hygiene and sanitation in the city

Kikwit is a deserted town with an unhealthy population. The study revealed that minimum hygiene rules were ignored, the lack of infrastructure and the problem of sanitation. The situation is made worse by an abundance of non-biodegradable plastic bags which exacerbate an already impoverished locality.

Scientific Research

The city is considered an intellectual center and is known as the Congolese intellectual nursery. Religious schools, built in the early 19th century by the Jesuits, are common, as are higher education establishments, including a Higher Pedagogical Institute, a Higher Institute of Medical Techniques and universities. Many of these institutions for scientific research could be used as laboratories or incubators for social innovation.

Potable water

However, although Kikwit is crossed by a very large river, the Kwilu, the city suffers from a lack of drinking water. Some residents, especially those who live in the neighbourhoods surrounding the Kwilu River, to obtain water, apart from those who use the few public fountains, and other small streams, have to go to this river as well as in small streams surrounding the city. As for commercial water, some are satisfied with those in plastic bags or in

bottles of mineral water which comes from Kinshasa, the capital of the country.

Electric energy

Two to three times a week, in the evening, the National Electricity Company (SNEL) provides a little power in certain neighbourhoods thanks to its thermal station. The rest of the time, its pitch black. As a result, silence reigns from 11 p.m., when the few generators turn off. Kikwit is still a city that is waiting for its electricity to develop.

Employments

In Kikwit, jobs are scarce and, in addition to agricultural trade, there is wholesale and retail sales, run by a handful of traders and importers, including Orgaman, "Congo Futur" the Lebanese and Indo -Pakistani, Kikwit activities are limited to services, except for a few mobile phone companies, community radio stations including Tomisa, diocesan radio, Sango Malamu, Venus and Okapi, as well as some construction and a small local craft business, including manufacturing glues wood or fired clay bricks. There are no social enterprises but it is an emerging sector, often based on social innovations. Due to the lack of opportunities, we can estimate that 90% of people in Kikwit town live a peasant lifestyle; mainly farmers, fishermen, loggers and gatherers. Up to 15,000 people travel up to 20 km, daily on foot to work on their estates in the hope of selling agricultural products and livestock. They cultivate plantations, fish, collect wild fruits or wood, or hunt in the forest. This type of personal initiative gives rise to a new form of spontaneous innovation that we call "Auto Social Innovation" (AIS) or "Self-Social Innovation" (SSI). Unfortunately, the intensive activities of farmers have no consequences on the environment. Forest ecosystems and rivers and streams in the suburban town of Kikwit have been severely transformed over three decades, with fish stocks and forests depleted.

Table 1: Types of impact of farming activities on the environment

	Activities	Type of d'impact on the environnement
1	Fishermen	Disappearance of fish species
2	Fish farmers	-
3	Palm nut cutters	-
4	Vegetable gardeners	Soil dégradation
5	Brick makers (clay-based)	Deforestation
6	Lumberjackss	Deforestation
7	Charcoal producers	Deforestation
		Deforestation
8	Farmers	Soil depletion
9	Street traders	Pollution
10	Sawyers	Deforestation
11	Stone collectors	River banks destruction

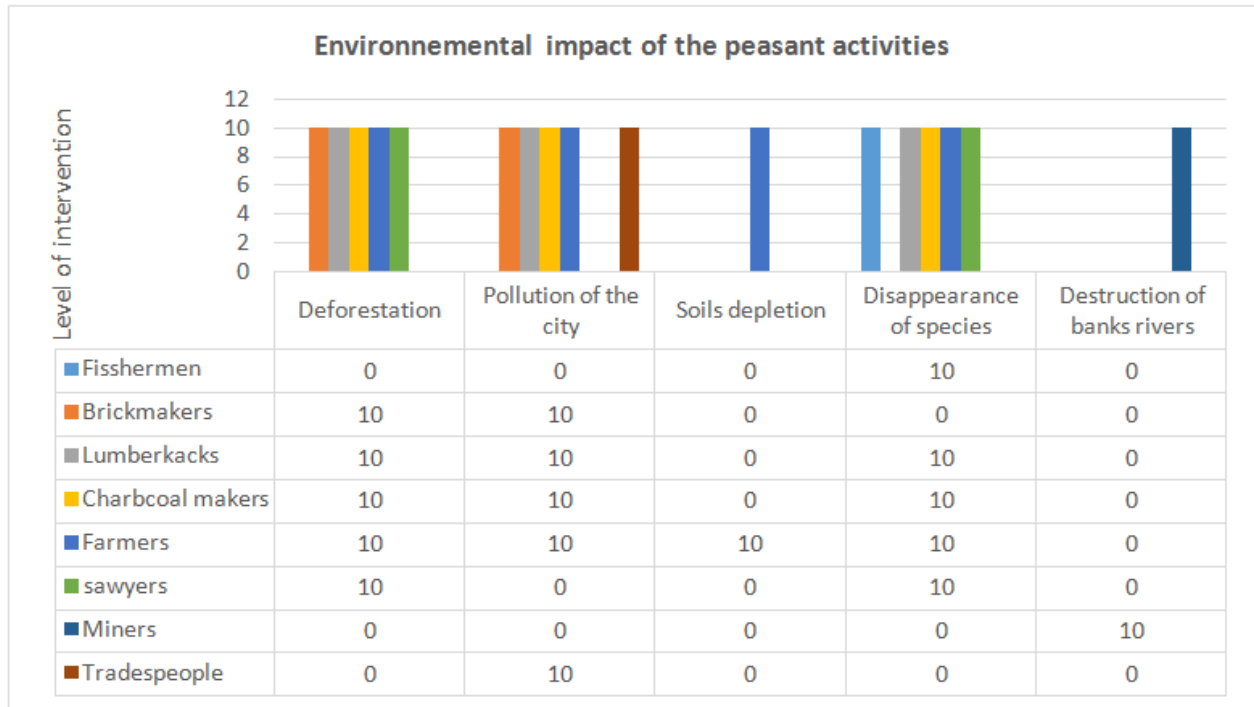


Figure3. I incidence of environmental impact by category of urban inhabitant

III. DISCUSSION

The stated key question of this research “to what extent does the current mode of governance allow actors to initiate the emergence of social innovations in the city of Kikwit?” Previous studies show that examples of social innovation are diverse and it is clear that there is potential in Kikwit. The incentives and beneficiaries of innovation. But the results of this study show that there is no formal interaction between the city of Kikwit and its citizens in civil society structures, such as NGOs, associations and mutual societies, religious groups and the business world.

This gap in governance makes local participatory democracy very difficult. Furthermore, it does not allow public authorities to co-create services in collaboration with citizens. This handicap could be overcome if local authorities adopted a strategic management tool to facilitate, identify and prioritize the needs of society, which have

generally been largely ignored for decades. Local authorities in other parts of the world increasingly involve citizens in co-responsiveness and social innovation, as they have direct contact, they provide funding and respond to citizens' demands for better performance overall. This is not yet the case for Kikwit, with its lack of a structural model to support social innovation.

The change in the status of the “peasant inhabitant” towards the “city inhabitant” as a response to societal needs for survival that are really felt and which the city is not yet able to satisfy requires more opportunities from public authorities, as far as far as education and citizen participation in the management of public affairs. This research led to the proposal of a mechanism to be put in place to promote social innovation, as shown in Figure 4 below:

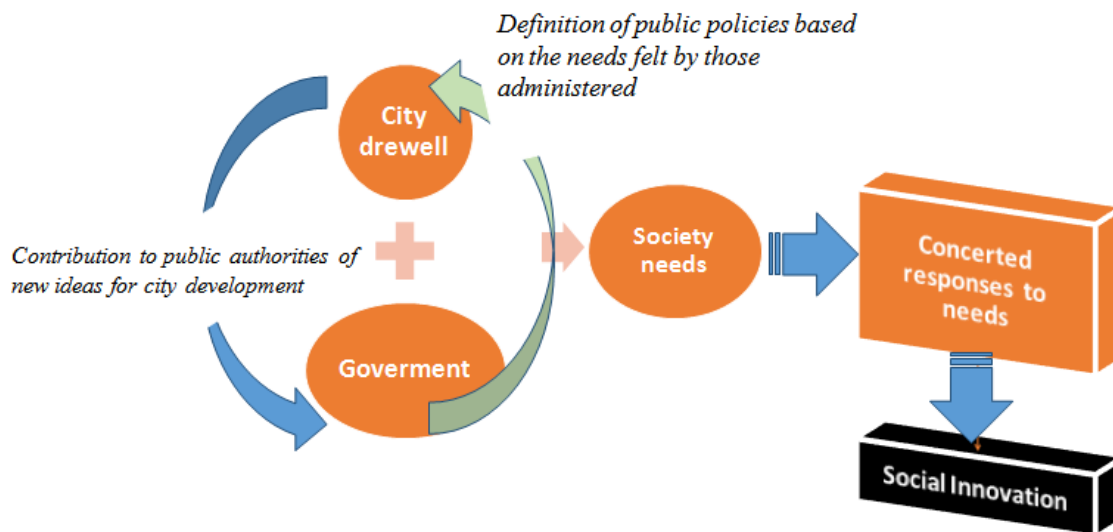


Figure 4: Structural model of citizen participation in the emergence of social innovation

IV. CONCLUSION

From the city of Kikwit, we note a lack of structural model to support social innovation and a formalized emergence of its practice. The mechanisms to be put in place to promote social innovation would require the construction of a structural model of this process reserving a space conducive to citizen co-production. Social innovation can result from social aspirations, which results in the search for a response strategy to the problems faced by residents. The implementation of such a strategy like the one proposed by this study remains closely linked to a mode of governance, the weight and the role of the actors. However, the public power of the city of Kikwit currently has neither the culture of social innovation nor a minimal structural and formal space to implement it. The absence of an innovative vocation and the capacity for commitment of citizen actors remains problematic. The move from an emerging phase to an experiment depends very much on appropriate public policies and citizen participation, as well as resources, if many poor cities in Africa are to be developed.

There are many avenues for future research to test the proposed structural model of citizen participation in social innovations, and this current research has provided a useful starting point for them.

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