Learning the importance of social-ecosystems through community gardens environmental services

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Human and nature are strongly coupled, to the point that they must be considered as a social-ecological system (Folke et al., 2011). However, cities were historically built with the idea of taking nature out of their walls (Larrere, 2015). This traditional way of conceiving cities, together with the urban extension and the concentration of human population, is triggering an extinction of nature experiences for citizens (Pyle and Miller 2005), that could be leading to a decline in urban people's connectedness to nature across generations (Kahn, 2002, Kahn and Friedman, 1995, Leopold, 1949 and Pilgrim et al., 2008). That phenomenon, called "Environmental generational amnesia", shows that from generation to generation people are used to experience less natural features in their daily life, and tend to consider it as their reference. Consequently their identity is not built in a context in which they identify themselves in a strong relationship to nature, which does not make them inclined to encourage conservation policies. In parallel, they are not experiencing the benefits of natural elements on their own well-being, effects demonstrated in environmental psychology works (see for example Kahn, 2002)

In this presentation, we propose to discuss the potential of community gardens as places that reconnect people and nature as a single « socio-ecological system » through three questions:

- 1) Does nature reconnection in cities provided by community gardens increase citizen dwellers' awareness about conservation, and in which conditions?
- 2) Does this connection create an environmental identity, and how?
- 3) Does nature reconnection create a new social identity in link with nature?

To answer these questions, we will analyze thirty interviews and participant observations made in different community gardens in Paris and Seine Saint-Denis department; and talk about the conditions that permit this nature experience lived in this gardens to increase personal, and social resilience, and which don't permit it. We will discuss these results within the concept of ecosystem services as defined in the 2006 Millennium Ecosystem Assessment (MA). Thus, ecosystem services are the benefits people obtain from ecosystems. In this case, we will be focusing on cultural services, defined as "nonmaterial benefits people obtain from

ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences" (MA).

Thereby we will show how these gardens constitute a place to learn about the interdependencies between humans and nature through the resilience to personal crisis, social bounds, environmental education and sense of place.