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The recovery of the natural capital of the River Irno fluvial landscape through the Payment for Eco-Systemic Services.

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Tracks b. Resilient spaces of river fruition

Key words: **Natural Capital, Irno Urban Park, P.E.S.**

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Introduction

We live in the Anthropocene, an era in which human beings have become the most important geological force on Earth. It is disturbing to acknowledge that the activities of seven billion people and their consumption habits have an overall impact greater than that of biophysical and natural geological processes. But it is not surprising.

The human biomass exceeds that of the entire megafauna of about two orders of magnitude, and our impact is several times greater. We rely on the ancient solar energy trapped in fossil fuels and today our ecological footprint is one and a half times bigger than the Earth production. In so doing we put the future survival of many species, ours included, at risk. In other words, we are consuming the past, the present and the future of our only abode, the biosphere, in a foolish pursuit of profit. We mistake Gross Domestic Product for progress and we are betraying the name of our species, *Homo sapiens*"(Anders Wijkman, Johan Rockström). Therefore it is clear the importance of recognizing the economic value of the landscapes that produce goods and services along with human activities. This would allow to overcome those projects of river landscape recovery that often aim to merely increase of the number of tourists with the consequent simplification of the existing ecological complexity and the significant eco-systemic imbalance.

Aim

The purpose of this paper is to look at the safeguard of ecological functions and processes, that are an asset (Natural Capital), as a support for the various local economies. The Natural Capital is a source of goods and services for the human beings that cannot be replaced by the outputs of other capitals. That is why the issues raised by its measurement and maintenance become crucial in a perspective of sustainability of human life. The Natural Capital provides so-called "ecosystem

services" that not only supply raw materials and food, but also the adjustment of water and air quality. Therefore it is important to look at the work done by Nature in an "economic perspective" to support the "durability" of economies compatible with the territory environmental quality, also respecting the qualification of the local populations' activities. The Payments for Eco-systemic Services (P.E.S.) could represent one applicative hypothesis targeted to the River Irno fluvial landscape recovery and maintenance. P.E.S. is a term commonly used to describe a number of incentives and market mechanisms that turn environmental (not market) values into concrete financial incentives for local operators in order to make them promote and support the maintenance of the multiple ecological functions offered by biodiversity and natural capital by means of self-declarations, best practices and environmental communication.

Case study: the River Irno

This paper will analyse the case study of River Irno, flowing through a fluvial park named after the river itself, the Irno Urban Park, currently managed by a Consortium which includes the municipalities of Pellezzano and Baronissi, the Irno Valley and Picentini Mountains Territorial Pact and the Consortium of Reclamation of Sarno. The Consortium aims to manage the urban river park carrying out the duties provided by art. 1 of Campania Regional Law n. 17 of 7 October 2003 with a particular focus on the needs related to nature and environment conservation, cultural, touristic and recreational use, protection of historical heritage, development of agricultural and agritouristic activities, forestry and other traditional activities aimed at promoting economic, social and cultural growth of the local communities in ways compatible with the environment.

However, although the Irno Urban Park has already developed environmental regeneration projects, the main problem for the Consortium is to make the effects of the regeneration work last. In this respect, P.E.S. can be a strategy for the conservation and restoration of the river landscape with the goal to internalize the costs and environmental benefits in the decision-making process through a voluntary "contractual agreement" between "supplier" and "buyer" of a given eco-systemic service (or a specific soil management) so as to secure the service itself and to determine, at the same time, high levels of landscape quality.

Therefore the methodology adopted for the suggested case study is that one of economic evaluations in order to:

- carry out a costs and benefits analysis in an area of high environmental value to generate income for local communities;
- identify and develop potential funding and economic incentives.