



Biodiversity/Biodiversité

Ecological solidarity as a conceptual tool for rethinking ecological and social interdependence in conservation policy for protected areas and their surrounding landscape

La solidarité écologique : outil conceptuel pour repenser les interdépendances écologiques et sociales pour une politique de conservation de la biodiversité au-delà des périmètres des espaces protégés

John D. Thompson^{a,*}, Raphaël Mathevet^a, Olivia Delanoë^b, Chantal Gil-Fourrier^c, Marie Bonnin^d, Marc Cheylan^e

^a UMR 5175, Centre d'écologie fonctionnelle et évolutive, CNRS, 1919, route de Mende, 34293 Montpellier cedex 5, France

^b INEA (Ingénieurs-conseil, Nature, Environnement, Aménagements), 1, rue Abbé-Fabre, 30250 Sommières, France

^c Cabinet d'avocats Gil-Cros, 7, rue Levat, 34000 Montpellier, France

^d IRD, UMR LEMAR/IUEM, centre IRD de Bretagne, BP 70, 29280 Plouzané cedex, France

^e UMR 5175, Centre d'écologie fonctionnelle et évolutive, EPHE, 1919, route de Mende, 34293 Montpellier cedex 5, France

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ABSTRACT

Policy for biodiversity conservation must evolve to cope with the increasing human footprint on natural systems. A major issue here is the need for policy for protected areas, which integrates their surrounding landscape and local human populations in the construction of socially grounded measures. To illustrate current conceptual thinking in this direction we present and provide a conceptual basis for a recent initiative in national park policy in France that is based on "ecological solidarity". In the light of other policy ideas and tools that have recently emerged for the co-construction of conservation policy, we argue that this concept provides an imaginative step towards consolidating ecological and social interdependence in biodiversity policy that goes beyond statutory park boundaries.

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R É S U M É

La conservation de la biodiversité ne peut se limiter aux seuls périmètres des aires protégées et il est devenu urgent d'adopter une stratégie de conservation qui intègre à la fois les territoires qui entourent les espaces protégés et les populations humaines locales au cœur de cette démarche. Pour illustrer ce double mouvement nous présentons ici une initiative récente dans la politique des Parcs nationaux en France qui est basée sur la notion de solidarité écologique. Ici nous présentons une analyse des bases socio-écologiques de ce concept. À la lumière d'autres initiatives émergentes qui tentent d'associer les populations locales dans la construction des projets de conservation, nous illustrons comment le concept de solidarité écologique ouvre la possibilité d'inscrire les interdépendances écologiques et sociales au cœur d'un projet de territoire.

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* Corresponding author.

E-mail address: john.thompson@cefe.cnrs.fr (J.D. Thompson).

1. Introduction

Since their origins in the heart of the American wilderness, National Parks have been established across the World to become a cornerstone in nature conservation policy. Their multiplication has been accompanied by increasing designation of other classes of protected areas with less restrictive protection in diverse ecological, historical and social contexts [1]. In many areas of the World pristine habitats are now few and far between, not only because of intensive land-use changes associated with growing human populations, but also as a result of extensive traditional low-intensity land use that has gradually transformed natural areas into semi-natural habitats. The latter are often associated with high species richness and conservation efforts in such cultural landscapes are thus often focused on continuing traditional agricultural and silvicultural practices or by mimicking such practices [2]. In addition, although protected areas are an indispensable tool for biodiversity conservation, most biodiversity occurs outside their borders and many species they may seek to protect also move beyond their borders; protected areas still only cover around 12% of the terrestrial Earth surface and only 5.8% has strict protection of biodiversity [3]. Hence, based on available scientific knowledge, the conservation of biodiversity in protected areas requires identification of the spatial ecological processes and sociocultural dynamics that link protected areas to their surrounding landscape.

Indeed, the ever-increasing human footprint [4] and the recognition that in most parts of the World, certainly in Europe, natural ecosystems are often closely associated with the history of human societies, the futures of ecosystems and human activities are closely intertwined [5]. This is particularly apparent in the mosaic form of many European and Mediterranean landscapes, which are shaped by the interaction between traditional human activities, the physical environment and its history, and natural vegetation dynamics [6]. This highlights the need for a research and policy perspective that acknowledges humans as components of ecosystems [7], and which integrates both social and ecological mechanisms affecting biodiversity [8]. As these authors suggest, the conservation of biodiversity dynamics and functioning in unprotected and protected areas requires that scientific understanding be confronted with the values and knowledge of the different actors involved. This combination of ecological knowledge and information with the analysis of social mechanisms is now necessary for biodiversity policy to gain in realism and efficiency. In this paper we illustrate conceptual advances in the co-construction of biodiversity policy and the recognition that protected areas form part of larger socioecological systems, and argue for an integrated foundation that manifests clearly the interdependence of social and ecological objectives.

More than ever, scientists and scientific institutions play a role by reporting research relevant to the need for future policy development and the responsibility to do so in a value neutral language that clearly identifies the implications of their research for policy [9,10]. In this paper we introduce a new policy initiative in national park policy

in France based on the concept of “ecological solidarity”. In defining this concept we illustrate how it provides a conceptual basis to address the issue of conservation in localities beyond the boundaries of strict protection areas. Our objective is to illustrate how this concept integrates, in a complementary manner to other emerging initiatives, issues relating to both the ecological connectivity and coherence of protected areas and their surrounding landscape and the need to convince local decision makers to adopt socially-grounded and ecologically responsible policy for biodiversity conservation which goes beyond statutory park boundaries. Since the policy-making process (especially in industrialized nations) has come to expect rather simple but precise scientific recommendations, which should not overemphasise their reliability nor hide their uncertainty [9], we focus on presenting in a clear and simple fashion the diverse issues involved. The common underlying issue is the recognition of the interdependence of social and ecological objectives.

2. Ecological solidarity in National Park policy

National Parks “à la française” were instituted by law in 1960 with a central zone to provide strict regulatory protection of the flora, fauna and landscape and a peripheral zone to “buffer” external developments. Forty years on, it was reported that because the peripheral zone provided poor control on development and that local populations and decision makers had a sentiment of being dispossessed of their livelihood and territory, a reform of park governance and organisation was necessary [11].

This reform came in 2006 with a new law (n° 2006-436 published the 14 April 2006). Here, National Parks were redefined with one or more “core” protection areas and an adjacent “optimal adhesion area” covering several to many local districts. The law states that the adhesion of local districts in the optimal adhesion area to the national park should be based on either their “geographic continuity or ecological solidarity” with the core. In this way, even if a local district is spatially separated from the core, it can participate in the National Park by ecological solidarity with the conservation objectives in the core. In addition, right from the start, local participation is instigated: it is the local authorities in the optimal adhesion area, which decide whether or not to adhere to the National Park. This opens the way to a direct and immediate implication of local populations, alleviating problems associated with absence of relevant interests at the start of a decision-making processes. Once the local authorities adhere, they form the “adhesion area” and sign a charter (a 15-year contract) with the National Park authority in which the goals of ecological solidarity are defined. A form of partnership between state regulation and local district adhesion thus underlies the definition of the National Park and its territorial project.

Already present in civil law, the term solidarity appears for the first time in an environmental law. The term ecological solidarity became part of the law during its deliberation among the different political authorities but was not defined. Ecological solidarity is also a novel concept. A web of science search procedure (16th October

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