

## National Park Declassification in Mexico: Between Propaganda, Legitimation and Bargaining

Clotilde Lebreton

École Normale Supérieure de Lyon, Centre de coopération International en Recherche Agronomique pour le Développement (CIRAD), Montpellier, France

E-mail: [Clotilde.lebreton@gmail.com](mailto:Clotilde.lebreton@gmail.com)

### Abstract

This article analyses the discursive, participative, and negotiation practices in the territorialised public action that occurred during the category change of the Nevado de Toluca Protected Area in Mexico—i.e. the declassification from a high conservation status to a more flexible one. We use a sociological approach for the analysis of the three public policy instruments, namely discourse, participatory mechanisms, and negotiation agreements, implemented by the Mexican government to accompany this change. The analysis reveals how the government instrumentalised this declassification in order to construct an environmental problem to legitimise public intervention and neutralise existing conflicts around specific scientific and democratic controversies. As a result, despite the use of supposedly more democratic and participatory instruments, Mexican conservation policies remain rooted in top-down approaches.

**Keywords:** public policy instrument, discourse, participation, conflict, controversy, protected area management, declassification, Mexico

### INTRODUCTION

The vision of Natural Protected Areas, the main tool for conservation policies, has evolved considerably over the last 30 years at the international level (Phillips 2003). Although their role in maintaining biodiversity and ecosystem services has been highlighted in various studies (Chape et al. 2005; Hannah et al. 2007; Gaston et al. 2008), they remain controversial from an ecological (ecosystem representativeness, inappropriate surface area, etc.) and socio-economic and political (social impacts, governance regime, etc.) point of view (Hayes 2006; West et al. 2006). Socio-economic rural development priorities are leading to more reclassifications,

i.e., category protection changes to allow certain human activities or even downgrades to the total deletion of the protection status (Zimmerer et al. 2004; Agrawal 2005; Mascia et al. 2014). In a recent study on Asia, Africa and Latin America, Mascia et al. (2014) reported 543 cases of category change in 375 protected areas in 57 countries<sup>1</sup>. The reasons given related mainly to the access and use of natural resources linked to industrial agriculture, urbanisation or strategic changes in conservation policies.

In Mexico, as elsewhere in the world, conservation policies of natural protected areas have evolved over the last 30 years (Young 1999; Dumoulin Kervran 2009), while more recently, strategic orientations are focused on the governance of natural protected areas and the participation of local populations (Ericson 2006; Garcia-Frapolli et al. 2009; Velázquez et al. 2009; Méndez-López et al. 2014). This model of integrative conservation (Depraz 2008) is spreading globally and corresponds to the current orientations of the International Union for Conservation of Nature (IUCN) (Ghimire and Pimbert 2000; Borrini-Feyerabend et al. 2004; Locke and Dearden 2005; Greiber 2009). Nevertheless, public policy instruments need to be adapted to make such

#### Access this article online

Quick Response Code:



Website:  
[www.conservationandsociety.org](http://www.conservationandsociety.org)

DOI:  
10.4103/cs.cs\_17\_37

participation possible. One example is the protected areas designated under the restrictive status of national parks that do not allow local actor participation in the development of productive projects such as community forestry. To circumvent this limit, some 20 Mexican protected areas have changed or will change their protective category by 2018 (CONANP 2013). The Nevado de Toluca National Park is one of the first protected areas to have been declassified to the status of Fauna and Flora Protection Area. Right from its emergence to its implementation, the reclassification process has crystallised tensions around the Park's new management strategy, the scientific expertise on which it is based, and the way in which it has been ratified (Lebreton 2015). In fact, the reclassification has been the occasion of territorialisation attempts by different actors (state, political, scientific) seeking to reconfigure resource access, control, and management (Bassett and Gautier 2014; Lebreton and Héritier In press).

The article discusses the instrumentation of public policy through governmental strategies to change the category of the Nevado de Toluca protected area. The study seeks to reveal how the Mexican Government used discourse, participation, and negotiation techniques without abandoning its top-down practices and its control over people and territorial resources. Although top-down governance has been the historical approach to manage national parks (Hodge 2016; Martínez et al. 2016), the Mexican government has declared its will to take into account international recommendations and to cooperate, compromise or negotiate with a plurality of actors (local authorities, associations, scientists, experts). For these new political interactions, the government combines traditional legislative instruments with 'new' instruments based on communication and agreement, leading to new modes of governance (Le Galès 2011). In the case of the Nevado de Toluca, three policy instruments were used to accompany the presidential decree of category change. The first one corresponds to the supporting discourse used by government agencies and spread through the media. Through a discursive approach, we will analyse the government processes used to build and inflect the environmental policy. The second is a participative instrument that consists of two public consultation processes (one to accompany the reclassification decree and one for the development of the protected area management plan). Analysis of the quality of participation in these two processes highlights how the Mexican government used it to legalise and legitimise its action. The third instrument is the bilateral agreement used to neutralise conflicts.

The paper presents the research methodology and the social-ecological context of the Nevado de Toluca protected area, followed by the analysis of the three declassification instruments. Finally, the paper concludes by arguing that the combination of these three techniques forms the overall negotiation strategy of the Mexican government, which is apart from principles of democratic openness, transparency, and equity between actors.

## METHODOLOGY

### An instrument-based approach to analyse public policy

The sociology of public policy instruments, within sociological institutionalism, defines an instrument as a "device that is both technical and social, that organises specific social relations between the state and those it is addressed to, according to the representations and meanings it carries" (Lascoumes and Le Galès 2007: 5). The first approach to public action instruments was proposed by Max Weber, who considered them a technique of domination as well as by Michel Foucault, who placed instrumentation at the centre of governmentality as the conduct of relations between political society and civil society (Lascoumes and Le Galès 2005). Other authors like Mayntz (1993), Howlett (1991) and Salamon (2002) have linked the governance question with policy instruments (Hood and Margetts 2007), but have minimised the role played by power relations (Le Galès 2011). In contrast, political sociology insists on the importance of the power dimensions that guide the choice of instruments, i.e., the public policy instrumentation (Lascoumes and Le Galès 2004; Lascoumes and Le Galès 2007).

By public policy instrumentation, the authors mean "the set of problems posed by the choice and use of instruments (techniques, methods of operation, devices) that allow government policy to be made material and operational. It encompasses the processes by which instruments are selected and operationalized" (Le Galès 2011: 9). Various contributions on policy instruments (Linder and Peters 1990; Salamon 2002; Howlett et al. 2005; Lascoumes and Le Galès 2007) consider them to be institutions, composed of rules and procedures that govern the interactions and behaviours of actors and organisations. Therefore, the instruments are not neutral but constitute a form of social control. They bear values and reveal the relationship between the government and the governed as well as the processes of government rearrangements (Lascoumes and Le Galès 2005). Lascoumes and Simard (2011) identify three types of effects that can be produced by instruments. The first is aggregation, by requiring heterogeneous actors to work together and to redefine their initial conception of the problem. In this way, instruments occupy a central place in the program definition of public policy and in its changes. The second is a cognitive effect, since instruments provide a particular representation of the stake by imposing a problematisation of social facts and its own hierarchy of variables and even its own explanatory systems. Finally, instruments are the object of an appropriation which can be reformulated or subject to resistance. Addressed from a sociological point of view, the instrumentation process reveals the underlying political logic and the modes of governance (Le Galès 2011).

The public policy instrumentation approach has hardly been used in the analysis of Mexican conservation policies (Rodríguez R. and Ávila Foucat 2013; Perevochtchikova and Torruco Colorado 2014). We argue that it makes a significant

contribution to the analysis of modes of governance in complex societies.

### The Nevado de Toluca Protected Area

The Nevado de Toluca National Park (NTNP) is located in the southeast region of the Toluca Valley, in the State of Mexico. It is about 20 km northwest of the town of Toluca (1.5 million inhabitants) and 120 km southwest of Mexico City (21 million inhabitants) (Instituto Nacional de Estadística y Geografía 2015) (Figure 1). Its lower boundary corresponds to the 3000 m contour line and covers about 54,000 ha. The NTNP is located in a region that has been declared a priority conservation area due because of its biogeographic heterogeneity. The largest ecosystem in the NTNP—more than 80%—is coniferous and oak forests and pastures hosting 627 plant species (including 52 endemics) and 175 vertebrate species (including 36 endemics). Agricultural areas and human settlements cover remaining 20% of the protected area (PA) (Franco Maass et al. 2006).

The NTNP was established in 1936 during a very prolific period of park designation by the Mexican Federal Government under the Cardenas administration between 1934 and 1940. While most states excluded local populations when establishing national parks (Sellars 1997; Spence 1999; Brockington and Igoe 2006; Hughes 2007; Torri 2011), the Mexican state proposed a rather different solution. Communal property status in the form of collective land ownerships such as “*Ejidos*” or indigenous land holdings known as “*Comunidades*”, from Article 27 of the Mexican Constitution of 1917, gave tenure and management rights to the communities living within national parks (Assies 2008). Those parks are called “*Revolutionary Parks*” by the historian Emily Wakild (2011): “land reform and national park creation both stemmed from transformations to legal designation tied to communal property”. Between 1923 and 1993, 54 communities that had their lands integrally or partially located within the limits of the NTPN were officially recognised by the government; about 80% of the protected area is now collective property (Figure 1). Since the creation of the NTNP, these communities have had the opportunity to establish their own governance systems with their own access and natural resource use rules that integrate state regulations (Lebreton et al. 2015). Thus, the NTNP was built on a twofold process of territorialisation resulting from conservation and forest policies of the Cardenas presidency and the agrarian policies inherited from the Mexican Revolution (Lebreton and Héritier In press).

On October 1, 2013, the NTNP was transformed by presidential decree into a ‘Fauna and Flora Protection Area’. According to the reclassification study (CONANP 2013), the environmental integrity of the NTNP was severely disturbed (deforestation, erosion, arboreal diseases, fires, river contamination, water deficit, and infiltration) because of unregulated socio-economic activities (illegal logging, extensive livestock grazing, intensive farming, mining, etc.) carried out by rural populations. The protected area category

was therefore found to be ineffective. While the first evocations of the NTNP reclassification go back to the 1990s, two factors played a role in the final decision (Lebreton 2015). The first was the decentralisation of PA management in 2005 from the federal level to the state level. At that time, state authorities were in favour of a reclassification contrary to the federal government. The second was the collaboration in 2010 between the State of Mexico and its former Governor Ignacio Pichardo Pagaza (1989-1993) in a project called ‘Program for the Recovery and Sustainable Management of the Nevado de Toluca’ (PROESNEVADO). This collaboration brought the reclassification to the political agenda of President Peña Nieto, then Governor of the State of Mexico, who then became President of the United Mexican States in July 2013 and signed the reclassification decree.

### Surveys

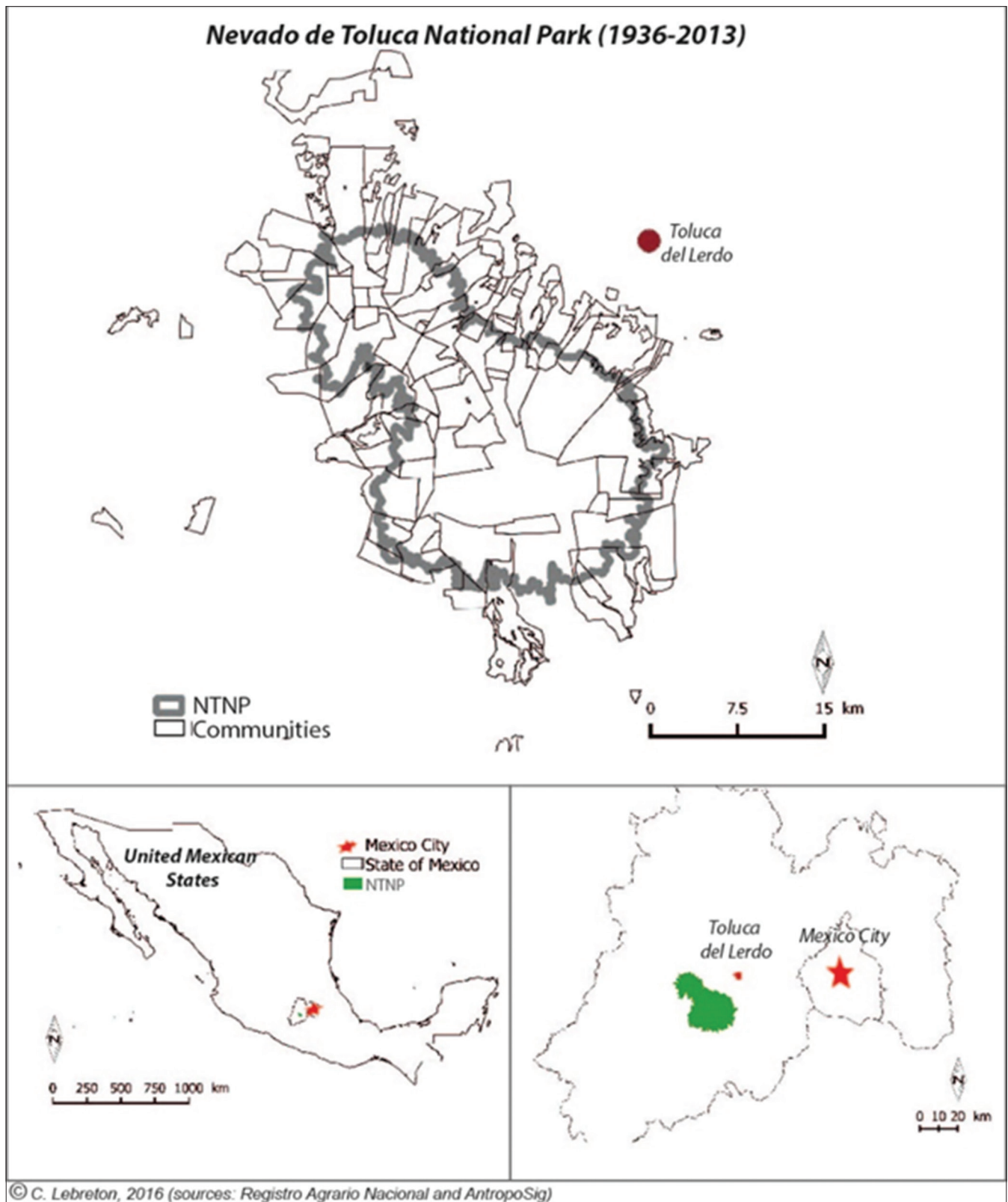
Forty semi-structured interviews were conducted with institutions, academics, forest engineers, associations, and representatives of non-governmental organisations. The three objectives were: (1) to identify the issues underlying forest and Mexican PA management decisions; (2) to identify the relationships between involved actors and to understand the intentions and stakes (declared or implicit) behind the category change; and (3) to highlight the various logics of action and strategies implemented during the reclassification. In addition, 50 interviews were conducted with community authorities to obtain their opinion on the reclassification and to estimate how well-informed they were about the process. In total, approximately 90 formal interviews were conducted.

Data from interviews were cross-referenced with written sources. Press articles published on the internet were used; a systematic review of online newspapers resulted in the compilation of about 100 articles. Scientific literature, including reports, evaluations, etc., was also collected during the interviews. Legislative texts, available on the Mexican official Gazette’s website<sup>2</sup>, were also reviewed for the study.

## ARGUMENT

### The construction of the environmental problem

Discourse analysis has provided valuable evidence to environmental policy studies during past decades (see Hajer and Versteeg (2005) for an overview). Hajer (2005) considers that the choice of discursive constructions influences the building of environmental problems and the elaboration of their solutions by producing shared common sense among the involved actors despite their diverging interests. He emphasises the role of argumentation in the production of public policy solutions and the importance of aggregations of actors in the imposition of a dominant discourse. Discourse offers a model of reality and associated argumentative work helps in influencing public policy (Fisher and Forester 1993; Baillat 2014).



**Figure 1**  
*Location of the Nevado de Toluca National Park and its 54 communities*

***The supportive reclassification discourse***

According to Adger et al. (2002), a discourse is composed of a corpus of expressions in which emerges an underlying

homogeneity that constitutes the ‘system of truth’ of the actors. The analysis of these expressions makes it possible to identify the dominant discourses, the actors who produce them,

and the social and political implications of these discourses (Baillat 2014).

As mentioned earlier, the NTNP reclassification is based on the assertion that the forest resource is under severe degradation. The government agencies did not hesitate to use catastrophic arguments to justify the urgency of the change: “*the park is terribly devastated*” (Secretaria de Medio Ambiente y de Recursos Naturales pers.comm. 2011), “*a region will die*” (PROESNEVADO 05.23.2010, personal translation). However, the only bibliographical reference in the supporting study that deals with land use change concluded pine forest fragmentation and a declining trend in the agricultural land area between 1972 and 2000 (Franco Maass et al. 2006). Nevertheless, the terms “deforestation” and “loss of 50% of the forest cover in 70 years” (PROESNEVADO pers. comm. 2015) were highlighted in the discourse without any spatial or methodological backing. We conducted a forest cover analysis based on comparative analysis of aerial photographs from 1951 and Google Satellite images from 2014 (Lebreton 2015). In contrast with the public message, during the 1951-2014 period, the total area of the NTNP forests increased by 1.56% (607 ha). The percentages of deforested and reforested areas each was about 10%, therefore cancelling each other out. In total, there was no net deforestation. The use of the term ‘deforestation’ reveals a form of manipulation, far from the forest fragmentation diagnosed. Hence, the environmental degradation of the Nevado appears to be a socially constructed object in the discourse to influence public policy.

### ***The construction of a solution to the environmental problem***

The main argument put forward in the study supporting reclassification was that the ‘National Park’ category is the most restrictive in terms of authorised activities. These restrictions limit the use of the territory and its resources through strict penal sanctions, excluding the implementation of regulations for access and use. The study suggests that ‘unsustainable’ activities could be either regulated and better controlled (e.g., forest product collection) or abandoned in favour of an authorised ‘sustainable’ activity (e.g., forest plantation logging). The reasons given by the study to explain the PA environmental degradation are based on two highly related assessments. While the first one states that the public policies carried out by previous governments “*have failed to conserve the Nevado de Toluca*” (Comisión Nacional de Áreas Naturales Protegidas pers.comm. 2013), the second one states that the local populations had no other choice but “*to resort to illegal activities to survive*” (Comisión Nacional Forestal pers.comm. 2013). In other words, the formal prohibition of income-generating activities, imposed by the national park category, led to the development of illegal and unsustainable activities. This discourse places people as victims who have no choice but to develop destructive practices to survive, and insinuates that given the opportunity, communities would only resort to sustainable practices. The discourse is sometimes supplemented with remarks emphasising the lack of education and awareness of these rural populations, as already observed

in other contexts by Grignon and Passeron (1989). In fact, this argument positions public authorities as ‘saviours’ who will remedy these environmental problems through reclassification, the “*only possible solution*” (Comisión Nacional de Áreas Naturales Protegidas pers. comm. 2013).

Moreover, the discourse reiterates a leitmotif carried by the forest sector (Comisión Nacional Forestal, Protectora de Bosques del Estado de México, forestry engineers): a “*protected forest is an exploited forest*” (forestry engineer pers. comm. 2014) or “*logging prohibition makes the area unprotected because people do not have economic interests to protect it*” (Protectora de Bosques del Estado de México pers. comm. 2013). This assertion about forest management modalities is the subject of controversies in Mexico (Foyer and Dumoulin Kervran 2009; Durand and Vazquez 2011) and within government authorities themselves (Lebreton and Hérítier In press). Moreover, according to the forest sector, logging would increase tree growth, regeneration rates, and—ultimately—environmental services (particularly water harvesting). However, there is no study corroborating or refuting the role of the NTNP forests, exploited or not, in water collection. There are many uncertainties and controversies regarding the relationship between forests and water flows (Hamilton 1985; Bruijnzeel and Proctor 1995; Cosandey 1995; Andréassian 2004; Muñoz-Piña et al. 2008; Balthazar et al. 2015).

The use of these discourses is reflected once again in the conclusions of Adger et al. (2002)—rural populations are responsible for deforestation but are themselves victims of the vicious cycle of poverty and environmental degradation. Scientists and policy makers have understood the mechanisms of this vicious cycle and their discourse reflects a ‘developmental’ approach. This approach involves, on the one hand, an external intervention with a transfer of resources and knowledge (compensatory financing, community organisation support), and on the other, local population self-management (Olivier de Sardan 1995) by promoting community forest management and developing productive projects.

### ***Discursive strategies to support change***

To underscore their discourse, political and institutional actors resort to expertise as a mean to legitimise and produce their own mode of public action: “*there are specialized academic foundations that argue the need for this category change*” (Secretaria del Medio Ambiente del Gobierno del Estado de Mexico pers.comm. 2012). Scientific knowledge has the potential of making policies more rational (Giessen et al. 2009). According to Lebaron (2000), the expertise would function as a ‘reservoir of authority’ ensuring a fair, informed, and objective decision. In fact, the discourses use the word ‘expertise’ frequently, making the decision appear as a ‘true’ description of reality (Grundmann 2009) and ‘neutral’ (Weingart 2003: 95)—thus depoliticising it and hiding the conflictual dimension of the environmental issue (Robert 2008). Expertise is a critical power resource in governance processes, because it has an instrumental function for legitimising and

justifying policies (Steffek 2009). Scientific expertise is instrumentalised by political actors who choose the scientific concepts that represent their political ideas and serve their interests (Murswieck 1994). The expertise allows the avoidance of responsibility; decision-makers do not have to defend their choices and be blamed for their consequences (Robert 2008). For example, the expertise of a researcher from the Autonomous University of Mexico is often invoked as if this scientist represents a body of knowledge that is highly policy relevant (Grundmann 2009): “He [the researcher] has received a dozen awards for his work, has created 4 or 5 Biosphere Reserves. [...] It is not here because of its political influence, but because of its work (PROESNEVADO pers. comm. 2015). However, this researcher has never published a scientific work on the NTNP.

In parallel, the Government relies on the argument of a public consultation to accredit its decision. Environmental policy scholars have advocated the importance of including stakeholder knowledge in the formation of public policies because they possess valuable expertise due to their experiences with and practices in their local ecosystems (Reed 2008; Phillipson et al. 2012; Brewer 2013; Dixon 2016). In public discourse other reasons—most prominently ethical considerations—can be brought forward to contest scientific expertise (Steffek 2009). Indeed, expertise can be criticised for hampering the democratic debate and be manipulated by decision makers who have supported them (Robert 2008). Public participation may lead to an improvement in procedural and distributive justice within democratic governance, thereby strengthening the civil legitimacy of decisions made (Rozema et al. 2012). Before the decree publication, the federal and state agencies ensured that the declassification was a will shared by all actors: “*everyone is in favor*” (Comisión Nacional Forestal pers. comm. 2013) or “*nobody is against, on the contrary*” (Comisión Estatal de Parques Naturales y de la Fauna pers. comm. 2013).

Thus, in the case of the PA reclassification, scientific expertise and participation were used as legitimization strategies and modes to produce public policy. But as for scientific expertise, we will see that the participatory processes implemented are questionable.

### Participation as a legitimization tool

Participation is now a norm in environmental public policy (Cohen and Fung 2004; Barbier and Larrue 2011). It implies a greater involvement of citizens in the public choices that concern them and the assurance that official authorities will take their concerns into account. In Mexico, the concept of participation appeared in the Constitution in 1983 (Article 26) and in the Environmental Law in 1988 which has recognised the right to citizen participation, the responsibility of government institutions to promote and facilitate it, and the central role of participation in the protection and sustainable use of natural resources (DOF 2015). However, participatory processes in Mexican PA governance still face serious challenges

(Paz Salinas 2005; Paré and Fuentes 2007; Brenner 2010). The vagueness in the legal definition of participation (methods, mechanisms, clarity of scope and limitations of social involvement) makes it a political instrument (not a policy instrument) which can influence the policy process but hardly the results (Vargas Paredes 2011). However, even if it is difficult to measure the influence of participation on public policy (Fischer 2010), Blondiaux and Fourniau (2011) argue that analysing participation can help to understand the wider social and political dynamics.

The category change of the NPNT was carried out in accordance with environmental law (DOF 2015) through two participatory processes. The first participatory process was a 60-day public consultation phase to accompany the supporting study publication in January 2013 (CONANP 2013). The second participatory process corresponded to the development of the management plan: its first version was accompanied by a 60-day consultation phase (November 2013) and the second by a 90-day consultation phase (August 2014).

Table 1 shows the four most recognised criteria used in assessing the quality of participation for the reclassification and the development of the management plan (Vergne 2013). Indicators are proposed to assess each criterion and a

**Table 1**  
*Participation quality in the two participatory processes implemented*

	Process 1	Process 2
Inclusion		
Quantitative	Medium (a hundred opinions)	Medium (a hundred opinions)
Qualitative	Low (government agent consultation)	Medium (actors directly concerned)
Relevance		
To public policy	Non-existent (decision taken in advance)	Low (zoning modification)
To political debate	Non-existent (absence of debate)	Medium (mediatised controversies)
Coherent objective/process	Medium	Medium
Deliberation		
Information available	Low (accessibility via internet and technical language)	Medium (accessibility via internet and information brochure)
Possibility of debate	Non-existent (no time for debate)	Low (scientific debate between experts)
Production of a result	No	Yes (final version of management plan)
Fairness		
Transparency	Low (omission of information)	Low (decision rules not explained)
Reflexivity	Low (meetings on request)	Medium (lengthening of consultation period)
Sustainability	Medium (citizen consideration but without empowerment)	Medium (citizen consideration but without empowerment)
Third-party	No	Yes (but level of independence unknown)

qualification (non-existent, low, medium, good) is assigned (for a more detailed analysis cf Lebreton In press). The quality of the first process is relatively low—the decision to reclassify the NPNT was made beforehand, the debate was non-existent, and more than half of the people consulted belonged to a governmental body involved in the project. Several communities accused the public consultation of being a sham (Dávila 2014). The quality of the second process was significantly better; particularly at the level of qualitative inclusion—an effort was made to consult the 54 communities directly concerned; relevance to public policy and public debate—the zoning was modified following the various comments and the NTNP case was discussed in the national (and episodically international) media; deliberation—an expert panel discussion occurred and feedback from the participants was sent to the PA manager; and fairness—the consultation process involved the 54 communities and was delegated to a professional organisation. Nevertheless, this process was not the occasion to discuss in detail what changes the communities would have to make to comply with the management plan: “*the scope of the reclassification was never explained to us*” (Loma Alta community pers. comm. 2015). The discussions took place among scientific and technical experts without taking into account current uses of natural resources. For example, extensive livestock breeding is now forbidden without any discussion about the viability of livestock housing with breeders. Access to the reclassification document was also complicated for communities who have limited access to the internet. Finally, the decision criteria for zoning were incomplete and socio-economic criteria were not mentioned.

These results confirm criticisms of participation reported in other contexts. Legal conditions for participation as well as the integration of its results are poorly regulated in law. The participation of local communities is limited to their integration into projects already planned by those considered specialists (Durand and Vazquez 2011). After the first process, numerous criticisms about participation modalities, the lack of consideration of public opinion, and the lockout of the debate were mentioned. The many accusations cited in the Mexican press about the lack of transparency in public action and the failure to take into account the main stakeholders—the communities (López-Vallejo Olvera 2014), led the State to communicate more about the development of the NTNP management plan and to improve the second consultation process. A learning process took place as the public authority adapted the second process without changing the objectives of its policy. Search for consensus and conflict avoidance are visible through the omission of potentially problematic changes (concerning agriculture and livestock) during the presentations. This contributes to the ‘depoliticisation’ of the political and social stakes according to Abram (2007) and Blondiaux (2007). The use of expertise appears as an assurance of the decision legitimacy. Since the available expert-based knowledge was not shared among participants, knowledge asymmetries between laypeople and scientific actors have not been reduced (Boulding and Wampler 2010; Blondiaux and Fourniau 2011).

In fact, the processes implemented did not have significant direct effects on public policy, as other authors have pointed out for other cases (Gauthier et al. 2001; Bherer 2011; Monédiaire 2011). They were mainly used to measure the social acceptability of the policy and the support of the different actor groups. Participatory processes prove to be instruments of governments who wish to legalise and legitimise their actions. Participatory processes may even be blamed for strengthening influential groups (Buttoud and Yunusova 2002), leading to what Cooke (2001: 19) calls a ‘dysfunctional consensus’. The orientations followed are those defended by the forestry sector and the consultations at the community level involve only those members with decision-making power even if they are not the only users of the forest resources. This evaluation of the participation is consistent with the conclusions of Gourgues et al. (2013) in their critical readings where they state that participation would constitute a new instrument of instrumentalised governance, legitimisation, enrolment, depoliticisation, pacification of conflicts, and ultimately a tool of control and power. The institutionalisation of participation is therefore questionable, as it did not allow debate on the reclassification decision but only on the modalities of its implementation.

Although these participatory procedures were envisioned as supplements to traditional representative bodies, decision-making power was not shared. The analysis of the participatory mechanisms has highlighted the political logics and questioned the quality of the participation process given the direct effects on the decision. In the next section, we analyse how the Mexican government has attempted to resolve conflicts around reclassification discourse and participatory processes.

### **Bargaining to resolve conflicts**

In this section, we focus on government strategies deployed against oppositions to public policy, namely, the modes of conflict resolution. These conflicts took two forms—the scientific counter-expertise carried by the university group of the trans-Mexican volcanic belt (FVTM)<sup>3</sup> and the trial against the participatory process carried out by a Nevado community. To solve these conflicts, the government needed to negotiate agreements to get the reclassification project accepted. Negotiation appears between two or more interdependent actors who have divergent and shared interests and communicate to reach an agreement (Fisher et al. 1991; Putnam and Roloff 1992). In achieving an agreement, actors can use negotiation strategies that can be integrative or distributive (Neale and Bazerman 1992; Leeuwis 2000; Dupont 2006)—distributive negotiation is based on confrontation and bargaining as opposed to integrative negotiation which seeks to integrate the positions of participants in a cooperative approach. In the case of the NTNP, the negotiations took place with an important distributive dimension where power played a central role.

### **Bargaining to block the counter-expertise**

One of the two major conflicts in the reclassification of the national park was the counter-expertise provided by the

university group FVTM, which was established following the publication of the decree. The researchers specialised in the protected zones of the Mexican volcanic belt whose ecological and evolutionary dynamics are close. This expertise gave them a scientific legitimacy to intervene on the NTNP. They analysed the coherence between the data presented in the supporting study and the proposed management solutions, and they judged the management proposal inconsistent with declared forest degradation. Being relatively familiar with the consultation procedures (from prior participation in the consultation of another protected area management plan), the group worked on a counter-proposal to the draft management plan. To challenge the government's decision and be heard, they actively exposed inconsistencies and scientific errors in the media.

To respond to these media attacks, the NPNT manager initiated working meetings to discuss the academic proposals. Four meetings were held; in December 2013 and March, May, and July 2014. Following the March 2014 meeting, agreements were signed on the extension of conservation and recovery areas. In the agreements, there was a request for monitoring and evaluation of the impact of logging on conservation. The minutes of the May meeting pointed out, among other things, that the last zoning proposal did not take into account the March meeting agreement. A new agreement was then reached to extend the preservation zone where logging was prohibited. The FVTM group was also invited to a meeting in July 2014 with the National Protected Areas Advisory Council for the management plan presentation. However, the group never received the formal invitation. Having got to know by chance the date of the meeting, they were still able to attend it (the NPNT manager mentioned an oversight in sending invitations). During this meeting, each party presented its proposals to the Council but no final agreement was signed. The changes in the second draft of the management plan published in August 2014 mainly concerned zoning; the use of erroneous data to justify 'deforestation' was maintained. Negotiations to resolve the conflict therefore failed.

The FVTM group published several articles<sup>4</sup> indicating its disagreement with the second draft of the management plan: *'The change of Nevado de Toluca, a historical error'*. In an open letter to the PA manager, they claimed that the Management Plan *"lacks technical rigor, contains erroneous data, incorrect interpretations and uses biased information to justify opening for forestry exploitation the forests that were successfully being conserved under the National Park figure"* (Guerra Abud and Fueyo McDonald 2014). They also blamed the government for modifying the FVTM Group's proposal *"without providing solid justificatory arguments"*. In the end, the group condemned the management logic which seeks to combat 'supposed' deforestation by exploiting forests with a cutting intensity '43 times higher' than the rate of deforestation allegedly recorded in the last 10 years (Grupo de la Faja Volcánica Transmexicana 2014).

Therefore, the attempted bilateral negotiations initiated by the NTNP manager, outside the formal participatory arena, failed. The partial integration of the recommendations of

the FVTM group without providing technical or scientific justifications appears like a bargaining technique. The attempt to resolve the legal conflict went on to use the same technique.

#### ***Clientelism to solve the legal conflict***

The legal recourse called *'amparo'*<sup>5</sup>, which guarantees the protection of individual constitutional rights, is the second major type of conflict caused by the reclassification. This legal recourse is the most important for citizens to oppose the public authority actions (Azueta and Mussetta 2008). Following the publication of the decree, legal recourses were filed by seven communities: *"We filed an amparo against the decree of October 1, 2013, since we were not consulted on this measure before it was carried out, thus violating our right to a hearing, stipulated in Article 27 of the Constitution, paragraph 9 section 8"* (Community of San Juan de las Huertas pers. comm. 2014). According to the law, the consultation should have been carried out before the community assembly, gathering at least three-quarters of its members and recording the act of the meeting in the National Agrarian Register. Only the *amparo* of San Juan de las Huertas was accepted at the end of November 2013 in order to be examined by a federal judge to determine whether the evidence presented permitted a trial. Six others were rejected for exceeding the time limit of legal recourse (30 days).

Following the validation of the *amparo* of San Juan de las Huertas, the government used repressive legal measures to incite the community to remove it. The community was receiving payments under conservation programs by the federal government and the State of Mexico. However, there is a provision in the programs stipulating that the beneficiaries are no longer eligible in case of conflict. The two governments suspended payments (about MXN 1,800,000 or USD 110,000) and promised that the community would be paid once the *amparo* was withdrawn. The community and other opponents of the project (local associations and politicians) have regularly mobilised the media to denounce this pressure: *"And they [the Government] have categorically told us: as long as you do not desist from this amparo there will be no payment at all"* (San Juan de las Huertas Community pers. comm. 2014).

In December 2014, the government of the State of Mexico, the former governor, and the community of San Juan de las Huertas finally negotiated an agreement to end the conflict. According to the community authority, a dozen meetings were organised formerly at the initiative of the government to convince, in vain, the community to withdraw the *amparo*. Both the government of the State of Mexico and its former Governor would finally ask the community *"what they wanted"* (San Juan de las Huertas Community pers. comm. 2015) to get out of this impasse and an agreement was reached. The agreement provided that the community, in exchange for the *amparo* withdrawal, would be ensured: its rights to its lands, forests, and waters; payment of amounts owed for conservation programs; the establishment of a nursery (approximately MXN 1 million or USD 60,000); the increase of areas benefiting



from payments for environmental services; the improvement of tourist infrastructure for the volcano access (visitors must pay a right of way to the community); the authorisation to implement an ecotourism project in partnership with a foreign company (a few weeks before signing this agreement, a Spanish company, specialising in the development of ecotourism projects, contacted the community); and the provision of a truck.

However, the community never withdrew its *amparo* and finally won its trial in March 2015. Once again, the concessions granted were insufficient to stop the conflict. However, the analysis of the agreement terms shows that the negotiated measures were already foreseen in the reclassification project (CONANP 2014). Apart from the fact that the attributions of the payments were to be subject to legal administrative procedures and that in this specific case they were to be automatically allocated (which raises a legality question), the interest of this agreement was doubtful.

The government used bilateral negotiation and bargaining techniques to try to resolve the scientific and the legal conflict. In the case of the latter, these bargaining techniques were similar to clientelism. And in both cases, the negotiation failed despite agreements being signed.

#### ***Negotiations with democratic pernicious effects***

In the two cases described, the negotiations have oscillated between a distributive and an integrative strategy (Lax and Sebenius 1986; Dupont 2006). The negotiations were conflicting and no actor seemed interested to negotiate. Negotiations were blocked due to inflexible positions of each actor—zoning proposals of the university group were not very progressive during the negotiation phase, the community maintained the *amparo*, and payments for environmental services were used as blackmail. According to Susskind (2008), agreements are only respected when parties feel that their core interests have been recognised, the process has been fair, and everything possible has been done to maximise joint gains. In reality, the three actors have largely instrumentalised the negotiations in various forms—coercion, manipulation, and persuasion (Leroux 2006). According to Leroux (2006), these types of agreements are fragile because they oscillate between compromise and rules instrumentalised in order to serve own interests.

The conclusions drawn from these negotiations are similar to those of Simard (2006) and Lascoumes and Valluy (1996). First, these negotiations led to leaving the participatory space, which questions the legitimacy of the decisions taken in the informal space. The informal negotiation spaces affect the implementation of public debates based on transparency, traceability, and equality between actors (Callon et al. 2001; Christiansen and Neuhold 2012). These informal negotiations challenge established democratic processes and the chances to implement deliberative mechanisms (Christiansen and Neuhold 2012), because the Government prefers bilateral agreements to not risk losing control of the situation in an open deliberative process (Cohen and Rogers 2003). Moreover,

by accepting bilateral negotiations, opponents of the project themselves hinder the implementation of the expected public debate.

#### **CONCLUSION: HOW TO MAKE CONSERVATION POLICIES MORE DELIBERATIVE?**

Despite the institutionalisation of participation and the democratic openness displayed in this case, the Mexican government used forcing techniques to implement its territorial public action. Techniques and discourses used to justify the reclassification of NTNP and to obtain a consensus on this decision were closer to propaganda than to a debate on the political and social stakes of this change. The quality of the first consultation process on reclassification was relatively low. It was not opened to a very broad participatory arena. There was no opportunity to open a debate with the private sector or civil society. The communities were informed more than consulted. Facing accusations of lack of transparency, the second participatory process improved. However, it did not have improved impact on public policy. Participatory processes turned out to be instruments used to legalise and legitimise the political decision. In order to make their voices heard, the actors in opposition seized the media and legal arenas. Opposition was structured around two controversies, one democratic and the other scientific. Consequently, the two opposing actors with a power recognised by the State (scientific legitimacy and land legitimacy), were able to negotiate. Bilateral and informal negotiating spaces were opened, affecting the implementation of a public debate and questioning the legitimacy of the resulting agreements.

According to Campbell et al. (2010), conservation and development policies must necessarily lead to societal compromises. Their objectives should be determined through transparent negotiation processes (Brechin et al. 2002; Dahlberg and Burlando 2009), as otherwise, the probability of favouring solutions chosen by the dominant players is high. The results of this study show that the public action instruments also tend to favour the interests of the dominant group. As one NGO interviewed noted, “the reclassification has raised the issue of forest management, but the real issue is how to improve the governance” (Reforestamos Mexico pers. comm. 2014). In Mexico, repression, clientelism, authoritarianism, exclusion of minorities, and corruption have been denounced regardless of political party and level of government (Morales Mena 2015). These practices are observable at all scales and are characteristic of Mexican public action. Consequently, policy instruments based on scientific expertise, participation, and negotiation cannot transform the top-down practices of a government on their own. Without voluntary reform processes, environmental governance cannot be based on principles of democratic openness, transparency, and equity between actors. Conservation policies involve societal choices that should be considered in a more democratic way.

## NOTES

1. Data used for this publication come from the PADDTracker database (Protected Area Downgrading, Downsizing, and Degazettement) created by the World Wildlife Fund (<http://www.paddtracker.org/about-site#sthash.MC7MMuU1.dpuf>).
2. <http://www.dof.gob.mx/>.
3. Grupo de la Faja Volcánica Transmexicana.
4. Animal Politico, 07.16.2014; Nexos, 08.11.2014; Oikos, 08/14; Planeta Azul, 10.07.2014; Grupo de la Faja Volcánica Transmexicana. (2014). "INFORMACIÓN TÉCNICA. Análisis y comentarios al Borrador del Programa de Manejo APFF Nevado de Toluca de Agosto 2014." Retrieved 4 septembre 2014, from <https://nevadodetoluca.wordpress.com/informacion-tecnica/>.
5. The amparo is conferred by the Constitutional Law of Mexico (Article 103 and 107) and the law of amparo.

## REFERENCES

- Abram, S. 2007. Participatory depoliticisation: the bleeding heart of neo-liberalism. In: *Espace public et engagement politique. Enjeux et logiques de la citoyenneté locale*. (ed. Neveu, C.). Pp. 113-133. Paris: L'Harmattan.
- Adger, W.N., T.A. Benjaminsen, K. Brown, and H. Svarstad. 2002. Advancing a political ecology of global environmental discourses. *Development and Change* 32(4): 681-715.
- Agrawal, A. 2005. *Environmentality: technologies of government and the making of subjects*. Durham, NC: Duke University Press.
- Andréassian, V. 2004. Waters and forests: from historical controversy to scientific debate. *Journal of Hydrology* 291(1): 1-27.
- Azuela, A. and P. Mussetta. 2008. « Quelque chose de plus » que l'environnement. Conflits sociaux dans trois aires naturelles protégées du Mexique *Problèmes d'Amérique latine* 70(4): 13-39.
- Baillat, A. 2014. Pour une approche discursive des politiques publiques environnementales. CERISCOPE Environnement. <http://ceriscope.sciences-po.fr/environnement/content/part4/pour-une-approche-discursive-des-politiques-publiques-environnementales> Accessed on May 10, 2017.
- Balthazar, V., V. Vanacker, A. Molina, and E.F. Lambin. 2015. Impacts of forest cover change on ecosystem services in high Andean mountains. *Ecological Indicators* 48: 63-75.
- Barbier, R. and C. Larrue. 2011. Démocratie environnementale et territoires: un bilan d'étape. *Participations* 1(1): 67-104.
- Bassett, T.J. and D. Gautier. 2014. Regulation by territorialization: the political ecology of conservation & development Territories *EchoGéo* 29.
- Bherer, L. 2011. Les relations ambiguës entre participation et politiques publiques. *Participations* 1(1): 105-133.
- Blondiaux, L. 2007. La démocratie participative, sous conditions et malgré tout. Un plaidoyer paradoxal en faveur de l'innovation démocratique. *Mouvements* 50(2): 118-129.
- Blondiaux, L. and J.-M. Fourniau. 2011. Un bilan des recherches sur la participation du public en démocratie: beaucoup de bruit pour rien? *Participations* 1(1): 8-35.
- Borriñi-Feyerabend, G., A. Kothari, and G. Oviedo. 2004. Indigenous and local communities and protected areas: towards equity and enhanced conservation. Gland and Cambridge: IUCN.
- Boulding, C. and B. Wampler. 2010. Voice, votes, and resources: evaluating the effect of participatory democracy on well-being. *World Development* 38(1): 125-135.
- Brechin, S.R., P.R. Wilshusen, C.L. Fortwangler, and P.C. West. 2002. Beyond the square wheel: toward a more comprehensive understanding of biodiversity conservation as social and political process. *Society & Natural Resources* 15(1): 41-64.
- Brenner, L. 2010. Gobernanza ambiental, actores sociales y conflictos en las Areas Naturales Protegidas mexicanas. *Revista mexicana de sociología* 72(2): 283-310.
- Brewer, T.D. 2013. Dominant discourses, among fishers and middlemen, of the factors affecting coral reef fish distributions in Solomon Islands. *Marine Policy* 37: 245-253.
- Brockington, D. and J. Igoe. 2006. Eviction for conservation: a global overview. *Conservation and Society* 4(3): 424-470.
- Bruijnzeel, L.A. and J. Proctor. 1995. Hydrology and biogeochemistry of tropical montane cloud forests: what do we really know? In: *Tropical montane cloud forests* (eds. Hamilton, L.S., J.O. Juvik, and F.N. Scatena). Pp. 38-78. New York, NY: Springer US.
- Buttoud, G. and I. Yunusova. 2002. A 'mixed model' for the formulation of a multipurpose mountain forest policy. *Forest Policy and Economics* 4(2): 149-160.
- Callon, M., P. Lascoumes, and Y. Barthe. 2001. *Agir dans un monde incertain. Essai sur la démocratie technique*. Paris: Le Seuil.
- Campbell, B.M., J.A. Sayer, and B. Walker. 2010. Navigating trade-offs: working for conservation and development outcomes. *Ecology and Society* 15(2): 6.
- Chape, S., M. Harrison, M. Sparling, and I. Lysenko. 2005. *Measuring the extent and effectiveness of protected areas as an indicator for meeting global biodiversity targets*. London: Philosophical Transactions of the Royal Society of London.
- Christiansen, T. and C. Neuhold. 2012. *International handbook on informal governance*. Cheltenham: Edward Elgar.
- Cohen, J. and A. Fung. 2004. Radical democracy. *Swiss Journal of Political Science* 10(4): 23-34.
- Cohen, J. and J. Rogers. 2003. Power and reason. In: *Deepening democracy. Institutional innovations in empowered participatory governance*. (eds. Fung, A. and E.O. Wrights). Pp. 237-255. London and New York, NY: Verso.
- CONANP. 2013. *Estudio Previo Justificativo para la Modificación de la Declaratoria del Parque Nacional Nevado de Toluca*. México DF: SEMARNAT.
- CONANP. 2013. *Programa Nacional de Areas Naturales Protegida 2014-2018*. Mexico DF: SEMARNAT.
- CONANP. 2014. *Borrador del Programa de Manejo. Area de Protección de Flora y Fauna "Nevado de Toluca"*. México DF: SEMARNAT.
- Cooke, B. 2001. The social psychological limits of participation? In: *Participation: the new tyranny?* (eds. Cooke, B. and U. Kothari). London: Zed Books.
- Cosandey, C. 1995. La forêt réduit-elle l'écoulement annuel? *Annales de Géographie* 104(5816-82): 7-25.
- Dahlberg, A.C. and C. Burlando. 2009. Addressing trade-offs: experiences from conservation and development initiatives in the Mkuze wetlands, South Africa. *Ecology and Society* 14(2).
- Dávila, I. 2014. El cambio de estatus en el Nevado de Toluca se efectuó sin consultar a la mayoría. *La Jordana*. Toluca, Mexico.
- Depraz, S. 2008. *Géographie des espaces naturels protégés. Genèse, principes et enjeux territoriaux*. Paris: Armand Colin.
- Dixon, Z.P. 2016. Material expertise: an ontological approach to stakeholder participation in marine policy. *Marine Policy* 72: 107-114.
- DOF. 2015. Ley General del Equilibrio Ecológico y la Protección al Ambiente. última reforma.
- Dumoulin Kervran, D. 2009. Un rythme mexicain dans le temps mondial de la conservation de la nature? In: *Diversité des politiques de développement durable. Temporalités et durabilités en conflit à Madagascar, au Mali et au Mexique*. (eds. Froger, G., V. Géronimi, Ph. Méral, and P. Schembri). Pp. 95-124. Paris: Khartala-GEMDEV.

- Dupont, C. 2006. Coopérer pour s'entendre ou s'affronter pour vaincre? *Négociations* 5(1): 114.
- Durand, L. and L.B. Vazquez. 2011. Biodiversity conservation discourses. A case study on scientists and government authorities in Sierra de Huautla Biosphere Reserve, Mexico. *Land Use Policy* 28: 7.
- Ericson, J. 2006. A participatory approach to conservation in the Calakmul Biosphere Reserve, Campeche, Mexico. *Landscape and Urban Planning* 74: 242-266.
- Fischer, T.B. 2010. Reviewing the quality of strategic environmental assessment reports for English spatial plan core strategies. *Environmental Impact Assessment Review* 30(1): 62-69.
- Fisher, F. and J. Forester. 1993. *The argumentative turn in policy analysis and planning*. Durham, NC and London: Duke University Press.
- Fisher, R., W. Ury, and B. Patton. 1991. *Getting to YES*. New York, NY: Penguin Books.
- Foyer, J. and D. Dumoulin Kervran. 2009. La Durabilité en conflit: réserve naturelle versus foresterie communautaire au Mexique. In: *Diversité des politiques de développement durable. Temporalités et durabilités en conflit à Madagascar, au Mali et au Mexique*. (eds. Froger, G., V. Géronimi, P. Méral, P. Schembri). Pp. 183-221.
- Franco Maass, S., H.H. Regil Garcia, C. González Esquivel, and G. Nava Berna. 2006. Cambio de uso del suelo y vegetación en el Parque Nacional Nevado de Toluca, México, en el periodo 1972-2000. *Investigaciones Geográficas, Boletín del Instituto de Geografía, UNAM* 61: 38-57.
- García-Frapolli, E., G. Ramos-Fernandez, E. Galicia, and A. Serrano. 2009. The complex reality of biodiversity conservation through Natural Protected Area policy: three cases from the Yucatan Peninsula, Mexico. *Land Use Policy* 26: 715-722.
- Gaston, K.J., S.F. Jackson, L. Cantu-Salazar, and G. Cruz-Pinon. 2008. The ecological performance of protected areas. *Annual Review in Ecology, Evolution and Systematics* 39: 93-113.
- Gauthier, M., L. Simard, and J.-P. Waub. 2001. Public participation in strategic environmental assessment (SEA): Critical review and the Quebec (Canada) approach. *Environmental Impact Assessment Review* 31: 48-60.
- Ghimire, K.B. and M.P. Pimbert. 2000. *Social change and conservation*. London: Earthscan.
- Giessen, L., D. Kleinschmit, and M. Böcher. 2009. Between power and legitimacy — discourse and expertise in forest and environmental governance. *Forest Policy and Economics* 11(5): 452-453.
- Gourgues, G. 2013. Critique de la participation. Dictionnaire critique et interdisciplinaire de la participation. <http://www.dicopart.fr/fr/dico/critique-de-la-participation>. Accessed on May 8, 2016.
- Gourgues, G., S. Rui, and S. Topçu. 2013. "Gouvernementalité et participation" Lectures critiques. *Participations* 6: 5-33.
- Greiber, T. 2009. Conservation with Justice. A Rights-based Approach. Gland: IUCN.
- Grignon, C. and J.-C. Passeron. 1989. *Le savant et le populaire. Misérabilisme et populisme en sociologie et en littérature*. Paris: Seuil.
- Grundmann, R. 2009. The role of expertise in governance processes. *Forest Policy and Economics* 11(5): 398-403.
- Grupo de la Faja Volcánica Transmexicana. 2014. Argumentos técnicos y propuestas de modificaciones al Borrador del Programa de Manejo del Área de Protección de Flora y Fauna Nevado de Toluca, dispuesto a consulta pública por la Comisión Nacional de Áreas Naturales Protegidas el 1 de agosto de 2014. [https://nevadodetoluca.files.wordpress.com/2014/09/comentariossegundaversionbpm\\_nevadodetoluca\\_30ag2014.pdf](https://nevadodetoluca.files.wordpress.com/2014/09/comentariossegundaversionbpm_nevadodetoluca_30ag2014.pdf). Accessed on September 4, 2014.
- Guerra Abud, J.J. and L. Fueyo McDonald. 2014. The Management Plan that followed the change of category of the Nevado de Toluca protected area threatens its biodiversity. [https://nevadodetoluca.files.wordpress.com/2014/09/nevado-de-toluca\\_summary.pdf](https://nevadodetoluca.files.wordpress.com/2014/09/nevado-de-toluca_summary.pdf). Accessed on May 16, 2015.
- Hajer, M. and W. Versteeg. 2005. A decade of discourse analysis of environmental politics: Achievements, challenges, perspectives. *Journal of Environmental Policy & Planning* 7(3): 175-184.
- Hajer, M.A. 2005. Rebuilding ground zero. The politics of performance. *Planning Theory & Practice* 6(4): 445-464.
- Hamilton, L. 1985. Overcoming myths about soil and water impacts of tropical forest land uses. In: *Soil erosion and conservation* (eds. El-Swaify, S.A., W.C. Moldenhauer, and A. Lo). Pp. 680-690. Ankeny, Iowa, E.-U.A.: Soil Conservation Society of America.
- Hannah, L., G. Midgley, S. Andelman, M. Ara'ujo, G. Hughes, E. Martinez-Meyer, R. Pearson, and P. Williams. 2007. Protected area needs in a changing climate. *Frontiers in Ecology and the Environment* 5: 131-138.
- Hayes, T.M. 2006. Parks, people, and forest protection: an institutional assessment of the effectiveness of protected areas. *World Development* 34(12): 2064-2075.
- Hodge, I. 2016. *The governance of the countryside: property, planning and policy*. Cambridge: Cambridge University Press.
- Hood, C. and H. Margetts. 2007. *The tools of government in the digital age*. Oxford: Oxford University Press.
- Howlett, M. 1991. Policy instruments, policy styles, and policy implementations, national approaches to theories of instrument choice. *Policy Studies Journal* 19(2): 1-21.
- Howlett, M., P. Eliadis, and M. Hill. 2005. *Designing government: from instruments to governance*. Montreal: McGill Queens University Press.
- Hughes, L. 2007. Rough time in paradise: claims, blames and memory making around some protected areas in Kenya. *Conservation and Society* 5(3): 307-330.
- Instituto Nacional de Estadística y Geografía. 2015. *Encuesta Intercensal México DF: Instituto Nacional de Estadística y Geografía*.
- Lascoumes, P. and P. Le Galès. 2004. *Gouverner par les instruments*. Paris: Presses de Sciences Po.
- Lascoumes, P. and P. Le Galès. 2005. Introduction - L'action publique saisie par ses instruments. In: *Gouverner par les instruments*. (eds.). Paris: Presses de Sciences Po.
- Lascoumes, P. and P. Le Galès. 2007. From the nature of instruments to the sociology of public policy instrumentation. *Governance, understanding public policy through its instruments* 20(1): 1-20.
- Lascoumes, P. and L. Simard. 2011. Public policy seen through the prism of its instruments. Introduction. *Revue française de science politique* 61(1): 5-22.
- Lascoumes, P. and J. Valluy. 1996. Les activités publiques conventionnelles (APC): un nouvel instrument de politique publique? L'exemple de la protection de l'environnement industriel. *Sociologie du Travail* 38(4): 551-573.
- Lax, D.A. and J.K. Sebenius. 1986. *The manager as negotiator: bargaining for cooperation and competitive gain*. New York, NY: The Free Press.
- Le Galès, P. 2011. Policy instruments and governance. *The SAGE handbook of governance*. London: SAGE Publications Ltd. Pp. 142-159.
- Lebaron, F. 2000. *La croyance économique. Les économistes entre science et politique*. Paris: Seuil.
- Lebreton, C. 2015. Gouvernance(s) sur un volcan. Controverses, arrangements et reconfigurations autour des instruments participatifs d'une aire protégée mexicaine (le Nevado de Toluca). PhD. Ecole normale supérieure de lyon - ENS, Lyon.
- Lebreton, C. *In press*. La participación, un instrumento de reconfiguración inesperado de la gobernanza ambiental. In: *La influencia de la(s) política(s) en medio ambiente*. México: IRD/INAP.
- Lebreton, C. and S. Héritier. *In press*. La reclassification des aires protégées mexicaines: ultime tentative de territorialisation de la propriété collective? Le cas du Nevado de Toluca (Estado de México, Mexique). In: *Géographie de l'environnement* (eds. Arnould, P. and L. Simon). Paris: Belin.
- Lebreton, C., S. Héritier, P. Arnould, and J. Imbernon. 2015. La forêt des

- convoyés: cent ans de politiques sociales, libérales et environnementales dans les Parcs nationaux du Mexique (1910-2013). *Vertigo - la revue électronique en sciences de l'environnement* 9(15) DOI: 10.4000/vertigo.15919.
- Leeuwis, C. 2000. Reconceptualizing participation for sustainable rural development: towards a negotiation approach. *Development and Change* 31(5): 931-959.
- Leroux, I. 2006. Gouvernance territoriale et jeux de négociation. *Négociations* 6(2): 83-98.
- Linder, S. and G. Peters. 1990. The designs of instruments for public policy. In: *Policy theory and policy evaluation*. (eds. Nagel, S.). Pp. 103-119. Westport: Greenwood Press.
- Locke, H. and P. Dearden. 2005. Rethinking protected area categories and the new paradigm. *Environmental Conservation* 32(1): 1-10.
- López-Vallejo Olvera, M. 2014. La agenda ambiental mexicana ante la gobernanza global y regional. *Revista de El Colegio de San Luis* 4: 102-130.
- Martínez, N., I. Espejel, and C. Martínez Valdés. 2016. Evaluation of governance in the administration of protected areas on the peninsula of Baja California. *Frontera Norte* 28(55).
- Mascia, M.B., S. Pailler, R. Krithivasan, V. Roshchanka, D. Burns, M.J. Mlotha, D.R. Murray, and N. Peng. 2014. Protected area downgrading, downsizing, and degazettement (PADDD) in Africa, Asia, and Latin America and the Caribbean, 1900-2010. *Biological Conservation* 169: 355-361.
- Mayntz, R. 1993. Governing Failures and the Problem of Governability. In: *Modern governance*. (ed. Kooiman, J.). London: Sage.
- Méndez-López, M.E., E. García-Frapolli, D.J. Pritchard, M.C. Sánchez González, I. Ruiz-Mallén, L. Porter-Bolland, and V. Reyes-García. 2014. Local participation in biodiversity conservation initiatives: A comparative analysis of different models in South East Mexico. *Journal of Environmental Management* 145(0): 321-329.
- Monédiaire, G. 2011. La participation du public organisée par le droit: des principes prometteurs, une mise en oeuvre circonspecte. *Participations* 1(1): 134-155.
- Morales Mena, A. 2015. ¿Es posible reducir la desconfianza política en México? El caso mexicano (1996-2004). *Revista Mexicana de Opinión Pública* 2015(18): 52-68.
- Muñoz-Piña, C., A. Guevara, J.M. Torres, and J. Braña. 2008. Paying for the hydrological services of Mexico's forests: analysis, negotiations and results. *Ecological Economics* 65(4): 725-736.
- Murswieck, A. 1994. Wissenschaftliche Beratung im Regierungsprozess. In: *Regieren und Politikberatung*. (ed. Murswieck, A.). Pp. 103-119. Opladen: Leske & Budrich.
- Neale, M.A. and M.H. Bazerman. 1992. Negotiator cognition and rationality: a behavioral decision theory perspective. *Organizational Behavior and Human Decision Processes* 51(2): 157-175.
- Olivier de Sardan, J.-P. 1995. *Anthropologie et développement. Essai en socio-anthropologie du changement social*. Paris.
- Paré, L. and T. Fuentes. 2007. *Gobernanza ambiental y políticas públicas en Áreas Naturales Protegidas: lecciones desde los Tuxtlas México*.
- Paz Salinas, M.F. 2005. *La participación en el manejo de áreas naturales protegidas. Actores e intereses en conflicto en el Corredor Biológico Chichinautzin, Morelos*. Cuernavaca: UNAM.
- Perevochtchikova, M. and V.M. Torruco Colorado. 2014. Análisis comparativo de dos instrumentos de conservación ambiental aplicados en el Suelo de Conservación del Distrito Federal. *Sociedad y Ambiente* (3): 3-25.
- Phillips, A. 2003. Turning ideas on their head. The new paradigm for protected areas. *The George Wright FORUM* 20(2): 8-32.
- Phillipson, J., P. Lowe, A. Proctor, and E. Ruto. 2012. Stakeholder engagement and knowledge exchange in environmental research. *Journal of Environmental Management* 95(1): 56-65.
- PROESNEVADO. 2010. Salvar el Nevado. *El Sol de Toluca*.
- Putnam, L. and M. Roloff. 1992. Communication and negotiation. Thousand Oaks, CA.
- Reed, M.S. 2008. Stakeholder participation for environmental management: a literature review. *Biological Conservation* 141(10): 2417-2431.
- Robert, C. 2008. Chapitre 11: Expertise et action publique. In: *Politiques publiques 1*. (eds. ). Pp. 309-335. Paris: Presses de Sciences Po (P.F.N.S.P.).
- Rodríguez R., and S. Ávila Foucat. 2013. Instrumentos económicos voluntarios para la conservación: una mirada a su surgimiento y evolución en México: An Outlook on their Emergence and Evolution in Mexico. *Sociedad y Economía*: 75-105.
- Rozema, J.G., A.J. Bond, M. Cashmore, and J. Chilvers. 2012. An investigation of environmental and sustainability discourses associated with the substantive purposes of environmental assessment. *Environmental Impact Assessment Review* 33(1): 80-90.
- Salamon, L.M. 2002. *The tools of government: a guide to the new governance*. New York, NY: Oxford University Press.
- San Juan de las Huertas Community. 04.20.2014. Piden ejidatarios información sobre recategorización del Nevado *El Sol de Toluca*.
- Secretaría de Medio Ambiente y de Recursos Naturales. 11.04.2011. Viable recategorizar Nevado de Toluca a Área de Protección de Flora y Fauna. *El diario de Toluca*.
- Secretaría del Medio Ambiente del Gobierno del Estado de México. 14.10.2012. GEM [Gobierno del Estado de México] busca recategorizar al Nevado de Toluca. *El Universal*.
- Sellars, R.W. 1997. *Preserving nature in the national parks, a history*. New Haven, CT and London.
- Simard, L. 2006. Négocier l'action et l'utilité publiques. *Négociations* 6(2): 99-112.
- Spence, M.D. 1999. *Dispossessing the wilderness: Indian removal and the making of the national parks*. Oxford.
- Steffek, J. 2009. Discursive legitimation in environmental governance. *Forest Policy and Economics* 11(5): 313-318.
- Susskind, L. 2008. Arguing, bargaining, and getting agreement. In: *The Oxford handbook of public policy* (eds. Moran, M., M. Rein, and R.E. Goodin). London: Oxford University Press.
- Torri, M. 2011. Conservation, relocation and the social consequences of conservation policies in protected areas: case study of the Sariska Tiger Reserve, India. *Conservation and Society* 9(1): 54-64.
- Vargas Paredes, M. S. 2011. Evaluando la participación social: democracia y políticas públicas. *Revista mexicana de sociología* 73: 105-137.
- Velázquez, A., E.M. Cué-Bär, A. Larrazábal, N. Sosa, J.L. Villaseñor, M. McCall, and G. Ibarra-Manríquez. 2009. Building participatory landscape-based conservation alternatives: a case study of Michoacán, Mexico. *Applied Geography* 29(4): 513-526.
- Vergne, A. 2013. Qualité de la participation. Dictionnaire critique et interdisciplinaire de la participation. <http://www.dicopart.fr/fr/dico/qualite-de-la-participation>. Accessed on March 8, 2015.
- Weingart, P. 2003. Paradox of scientific advising. In: *Expertise and its interfaces: the tense relationship of science and politics* (eds. Bechmann, G. and I. Hronszky). Pp. 53-89. Berlin: Edition Sigma.
- West, P., J. Igoe, and D. Brockington. 2006. Parks and peoples: the social impact of protected areas. *Annual Review of Anthropology* 35: 251-277.
- Young, E. 1999. Local people and conservation in Mexico's El Vizcaino Biosphere Reserve. *Geographical Review* 89(3): 364-390.
- Zimmerer, K.S., R.E. Galt, and M.V. Buck. 2004. Globalization and multi-spatial trends in the coverage of protected-area conservation (1980-2000). *Ambio* 33: 520-529.