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'Agenda-setting and The Political Ecology of Large Infrastructure Projects in Latin America'

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This paper analyses the complex interplay between the environmental acceptability of large infrastructure projects and other normative values that may influence policy decisions, such as 'social justice' and 'economic growth'. It explores how historical changes in policy ideas may determine if a project survives on the policy agenda, if it is moved up to the decision-agenda; and whether and how it is finally implemented. Two case studies are presented with more detail: the project for a new international airport in Mexico City (1964-2000) and the Misicuni Multipurpose Project, aimed at solving the problems of water scarcity in Cochabamba, Bolivia (1952-2000).

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I. Introduction

In the next decades Latin America will face the challenge of meeting an ever increasing deficit of infrastructure whose materialisation will require intense and complicated negotiations between different public, private, and social actors. In the case of Mexico, for example, a number of infrastructure projects have already been identified as a top priority to sustain and guarantee the economic development of the country. According to back of the envelop calculations the necessary investment could reach USD 60 billions in a twenty years horizon (Elías Ayub, 2005). If this data is extrapolated to the case of Latin America as a region, the calculation shows a very conservative estimate of USD 200 billion over a twenty year time frame.[2] These projects should be considered within a larger framework of structural reforms that also require complex negotiations and changes in the methods and parameters that are used to assess the implementation of new projects and public policies.

And yet, the record to date is not very encouraging. In the last ten years, Mexico has witnessed the cancellation or indefinite postponement of almost twenty policy initiatives, from tourist developments and housing projects to dams, airports, and road expansions (Reforma, 08-09-03). Other countries such as Bolivia, Brazil, Costa Rica, and Peru have also experienced similar difficulties. With no doubt, many policy failures have involved ill-designed and ill-conceived projects whose benefits were doubtful right from the outset; but failures have also involved more beneficial projects that were cancelled or postponed in the context of financial difficulties or lack of political consensus. Whether a large infrastructure project such as a dam, a highway, or an airport is beneficial and convenient or not, constitutes an empirical question that depends on a number of contextual and case-specific aspects such as the policy problem in question, the urge for a solution, and the availability of other alternatives, between other factors. In any case, taking both bad and good projects into consideration what the recent record of policy failures shows that the process of designing, promoting, and implementing these projects requires a thorough rethinking in the context of economic, social, and political transformations that the region has experienced in the past two decades.

The issue of environmental acceptability poses an enormous challenge for the successful implementation of this kind of initiatives. It entails conciliation between different narratives regarding the rationality of large infrastructure projects; conflict and contestation over alternative uses of natural resources such as land and water; negotiation between 'different epistemologies' (Blaikie, 1994:6); hierarchisation of competing policy goals; and tracking complex chains of causation that link natural and social processes, including that of policy formation itself.

But this is an ambitious undertaking that surpasses the scope of this paper and therefore, within the ample spectrum of issues approachable from a *political ecology* perspective, this work aims to answer only two basic questions. First, how and under what conditions is 'the environment' taken into account as an evaluative dimension when assessing large infrastructure projects? And second, is there an intrinsic conflict or trade-off between 'social justice' and 'environmental justice' when assessing large infrastructure projects?

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[2] This estimate depends on the definition of 'infrastructure needs' and 'infrastructure gaps'. A recent World Bank document suggests the more ambitious target of 4-6 percent of GDP for the region to catch-up with Korea in terms of water, sanitation, electricity, telecommunications, and transport infrastructure (Fay and Morrison 2007:7-8, 105-106). Over a 20 years scenario, this could be equivalent to USD 1,400 billion.

To answer both research questions this paper presents a historical analysis of two case studies: the project for a new international airport in Mexico City (NAICM) and the Misicuni Multipurpose Project (MMP), which includes the construction of a dam to solve the problems of water supply in Cochabamba, Bolivia. The first project had been on and off the Mexican governmental agenda for more than three decades and its implementation had been discarded and/or postponed by the five presidents previous to Vicente Fox. The final decision to implement the NAICM was officially announced in year 2001, but resettlement and expropriation negotiations failed and opposition to the project led to violent and non-violent mobilisations from several groups -peasants, NGOs, political parties, and even groups that were not directly affected. The project was cancelled in year 2002 (Dominguez, 2004; 2006).

In a similar fashion, the second project survived on the Bolivian policy agenda for more than three decades and its implementation was only announced in year 1999 as part of an effort to privatise water and sanitation services (WSS) in the city of Cochabamba. This latter measure led to social and political tensions that culminated in street protests from different urban and rural actors claiming that the government had colluded with private actors to exploit water resources without benefiting the most disadvantaged and without respecting traditional uses and customs in rural areas. To date, the future of Misicuni remains uncertain.

The comparison is not centred on the infrastructure projects themselves or the respective policy subsystems –i.e. transport and water-, but on the processes of policy formation and decision-making to find common patterns between two dissimilar instances. In this respect, the main goal is to test the following propositions:

Proposition One: whether 'the environment' (and what definition of 'environment') constitutes or not a normative value that is taken into account during the policy process; it depends on its relation and interplay with other normative values and dimensions of conflict at a given time.

Proposition Two: there is not always an intrinsic conflict between 'social justice' and 'environmental justice' when defining policy alternatives, but this conflict depends on the mediation and/or predominance of other normative values such as 'fiscal discipline' or 'economic growth'.

II. Political Ecology and 'the Environment' within a Broader Understanding of the Policy-Making Process

Large infrastructure projects tend to be complex undertakings with multi-dimensional implications that challenge the inflexible and compartmentalised divisions of existing institutions and the bounded rationality of policy makers. The generation of project proposals in this policy area is not a straightforward process according to which a problem emerges, it is comprehensively analysed to determine available solutions, and the best one is chosen according to strict economic and technical-engineering parameters. By contrast, alternative projects constitute a sort of 'living beings' that evolve through time, depending not only on the evolution of problems themselves, but on developments in the state of knowledge within certain policy subsystem and on changing economic, social, and political scenarios. In this sense, the task of bringing an idea onto the policy

agenda is not an easy one. It may take several years and not only depends on power and influence, but on the very content of proposals. It is even possible to talk about the 'natural selection ideas': they do not appear from one day to the other; they evolve, build on previous ideas, and are shaped and re- shaped according to the broader context (Kingdon, 1984:125-127).

The issue of *environmental justice* is only one among many other aspects that may be taken into account when deciding if a project survives on the policy agenda and whether and how it is finally implemented; that is, 'the environment' and the different definitions of 'the environment' should be analysed in relation to other policy goals and policy problems. In other words, this work proposes that the traditional preoccupations of political ecology should be studied within a broader and more general conceptual framework that explains the processes of policy formation and policy implementation in terms of competing policy goals, normative values, and evaluative dimensions among which the environment –or the environments- is only one.

The conceptual framework here proposed is based on Schattschneider's classic theory of political conflict, complemented with more recent developments within the area of public policy. Although this author's original preoccupation revolved around democracy and party politics in the United States, the core arguments and concepts may serve as heuristic devices to understand other political phenomena in other political settings, including the formation of infrastructural policy in Latin America. In a few words, the title of Schattschneider's book *The Semisovereign People* (1975) was inspired by the idea that the political system in the United States is not as democratically representative as it is generally accepted to be.[3] On the one hand, pressure groups represent very narrowly defined interests that not necessarily match the public interest and on the other hand, political parties may be relatively more representative but they only mobilise support along certain conflict cleavages that reduce alternatives to the extreme limit of simplification –e.g. the role of the State versus the role of business in the Economy- and as a consequence, political platforms are not relevant to large minorities of voters. In general, Schattschneider wrote, '…the outcome of the game of politics, depends on which of a multitude of possible conflicts gains the dominant position…[and therefore]…all forms of political organisation have a bias in favour of the exploitation of some kinds of conflict and the suppression of others…' (1975:69) If there are forty millions of Americans who don't vote, Schattschneider concluded, it is because '…the political system is too preoccupied by the cleavage within the sixty million that it has become insensitive to the interests of the largest minority in the world (*ibid*: 105).

But leaving aside the problem of political representation in the United States and taking Schattschneider's ideas to a more abstract and general level, there are four variables that according to this author shape conflict. First, the *scope of conflict* is determined by whom and how many become involved. That is, the outcome of a political conflict cannot be determined from who participates initially because the addition of new participants alters the balance of power and changes the outcome. Second, since not all conflicts are perceived as equally important by everyone, *the intensity of conflict* is a determinant of who participates and who doesn't. For example, in times of war discussions of foreign policy can shape political campaigns and obscure other conflict cleavages that are based on domestic affairs such as social security, the performance of the economy, or cultural politics.

Third, the likelihood that political actors are aware of an existing conflict and therefore, the likelihood that they will join and take sides in a conflictive situation

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[3] Notice that the book was written in 1960 and published in 1975 by Dryden Press, but the discussion may very well be relevant for contemporary politics in the United States.

depends on how visible is the conflict itself. In this respect, different actors can pursue different strategies depending on prevailing power inequalities. The most powerful actors will prefer to privatise conflict so that they can exclude other participants that can potentially change the balance of power against them. The typical example is a business firm that seeks to settle a legal fight out of court, so that the conflict is not publicised any further. By contrast, weak actors will prefer to socialise conflict in a way that they can appeal to allies that may potentially change the balance of power in their favour. A clear example is the case of social movements who resort to unorthodox ways of political participation and exaggerate causal stories to render them more visible in the public sphere, to appeal to public opinion, and to gain powerful allies (Domínguez, 2006:18). In other words, the *visibility of conflict* also shapes the outcome by determining who participates and who doesn't; and vice versa, who participates and with what strategy also shapes the visibility and the scope of the conflict.

Fourth and finally, the properties of visibility and intensity work to discriminate and prioritise in a way that some conflicts can displace others. In this respect, modern democracies can only process a number of conflicts at the same time and therefore, the operability of the system depends on displacing and suppressing those who are perceived as having a lower-priority while giving salience to those considered as having a higher-priority. In this respect, a political system that is governed by changing and evolving conflicts is always dynamic because there is hardly ever a situation of equilibrium or if there is any equilibrium at all, this is fundamentally instable. New actors can come into play if conflicts become more visible and/or are felt more intensely or alternatively, those actors who lose out by the exploitation of certain conflict cleavage can always pursue a 'flank attack' (*ibid*: 66) by introducing new dimensions that were not visible before, changing the direction of conflict.

The simplicity of this classical theory of political conflict renders the analysis a powerful tool that is applicable to studying manifold political phenomena. And yet, Schattschneider's original ideas need to be complemented with more recent insights within the area of public policy to understand, for example, the evolvement of project proposals on the government-agenda[4] of Latin American countries. The most important consideration is about the power and agency of individual actors to shape the scope and direction of conflictive scenarios. After all, political actors cannot always steer the dimensions of conflict that are relevant to take policy decisions as freely, strategically, and unrestrainedly as they wish.

Dimensions of conflict are also dictated by prevailing normative values or governing principles that influence the policy-making process and limit the availability of policy solutions that may be acceptable for both policy specialists and political entrepreneurs at a given period of time (Kingdon, 1984:133). Normative values are very general in scope (Sabatier and Jenkins-Smith, 1999:120-122) and usually work as regulative considerations that go from broad ideals such as 'economic growth', 'international competitiveness', 'social justice', 'multiculturalism', and 'environmental justice' to very general policy goals such as 'fiscal discipline', 'private sector participation', 'food self-sufficiency', 'urban development', etc. They shape policy solutions by setting limits to what is acceptable and what is not; and they influence policy debates by defining which dimensions of conflict are tolerable while displacing and suppressing others.

For example, the construction of a new highway might be acceptable if it fits existing budget constraints within the principles of fiscal discipline or an airport might be

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[4] Notice that the *governmental agenda* is a 'list of subjects that are getting attention' whereas the *decision agenda* is a 'list of subjects within the governmental agenda that are up for an active decision' (Kingdon, 1984:4).

convenient if the environmental impacts can be minimised according to a rational-administrative view (Dryzek, 1997); and any policy proposal that goes against these assessment pre-considerations is discarded *de facto*. This does not mean that one and only one normative value 'governs' policy decisions at a time, but there are always implicit hierarchisations and prioritisations between prevailing normative values in a way that some of them are subordinated to others. The environment may be taken into account *if and only if* economic growth is promoted and fiscal discipline is kept under control or vice versa, social justice, fiscal discipline, economic growth, and other concerns may only be valid *if and only if* the environment is taken into account with a conservationist point of view.

These normative values are externally defined in the sense that they usually escape the agency of individual actors. They evolve through time and their predominance is the consequence of a complex interplay between the development of knowledge and new paradigms (Kuhn, 1970) in one or many policy subsystems and the occurrence of unpredictable shocks, crises, and other macro-events in the broader socio-political context. For example, an extended international financial crisis might prompt the emergence of 'fiscal discipline' as a predominant normative value across policy subsystems or as it has been the case of the environmental movement in the last thirty years, the conclusion of new scientific studies or the occurrence of natural disasters may raise public concern about ecological impacts, displacing other issues on the agenda of selected policy subsystems such as transport and energy.

The internalisation and 'naturalisation' of normative values constitutes another important consideration about the agency of political actors. Some normative values are more 'sticky' than others and tend to stay around for longer periods of time, until decision-makers simply take them for granted –i.e. until they internalise them. This is especially the case if normative values are mirrored on the creation of supporting institutions and the hierarchisation between different bureaucratic offices; and if they are projected on discourses and narratives to legitimise the formation and implementation of policy decisions in the public sphere.

In this way, governing principles have a double function. They not only limit the dimensions of conflict, but constitute guides to action that simplify reality and restrict the locus of attention, facilitating the assessment of complex and often incommensurable alternatives. Thus, when confronted with policy decisions whose implementation has multidimensional and highly-complex implications, decision-makers need to make use of any procedural and decisional aids at hand and normative values that have been previously internalised can become precisely that: an abridging algorithm for taking complex decisions. For example, the selection of an airport location or the decision to build a dam may entail a collection of economic, technical, social, and environmental implications whose assessment and mutual incommensurability constitutes an overwhelming undertaking. The appraisal of two or more policy alternatives that are mutually exclusive may be relatively easy along one or two of these comparative axes – e.g. economic, social, environmental-; but once all of them must be considered together, the task of choosing the policy solution that seems to be more convenient or more acceptable carries an implicit hierarchisation of evaluative dimensions. In other words, 'acceptability' and 'convenience' become a function of those aspects that are perceived as 'decisive' depending on prevailing normative values and depending on which dimensions of conflict find room within these latter.

With these considerations in mind, Schattschneider's theory of conflict can be 'transposed' to understand the evolvement of a project proposal on the policy agenda. The analogy is simple: decisions regarding an infrastructure project are like political

campaigns and those political actors who promote or oppose a candidate (in this case a specific project) only concentrate on a limited number of dimensions of conflict, depending on prevailing normative values. The content of a 'political campaign' is shaped by preoccupations regarding public acquiescence to a policy and by those aspects whose importance and high-priority has been taken for granted. The outcome depends on the scope, visibility, intensity, and displacement of conflicts.

III. Case Study One:
The Project for a New International Airport in Mexico City (NAICM)

The possibility that the capacity of the International Airport of Mexico City (IAMC) would be exceeded in the near future was pointed out for the first time as a potential problem during the mandates of Díaz Ordaz (1964 – 1970) and Luis Echeverría (1970-1976). However, the competition between two advocacy coalitions with alternative policy proposals and the nature of the six-year political cycle in Mexico contributed to the presidential decision to postpone the project. The first advocacy coalition was led by the then existing Ministry of Public Works (SOP) and it was based on the policy belief that the existing IAMC should be relocated to the area of Zumpango as it was the most suitable and closest site to the demand centre. The second advocacy coalition was led by the Ministry of Transport and Communications (SCT) and it was based on the policy belief that the existing infrastructure could be used for another decade or so if minor improvements were completed. Members of this coalition argued that the necessary land reserves in Zumpango should be acquired in the meantime, so that the airport could be built there in the future (Anonymous Interview (a), Aug-2003).

The Mexican example confirms that policy proposals are not straightforward responses to policy problems, but they have their own independent dynamic. Following Richardson and Jordan (1979), a significant amount of political processing takes place in niches of specialist civil servants and/or by representatives of concrete policy areas who become pressure groups competing for political and economic resources within the broader governmental structure. In the case of the airport in the 1970s, there was a tight competition between two ministries because their positions were not only based on their policy beliefs, but on their particular interests as government dependencies. The SOP was in charge of building transport and communications infrastructure and building the new airport in Zumpango meant that this government agency would lead and benefit from the project. On the other hand, SCT was in charge of operating transport and communications infrastructure, but building a new airport was of little significance for representatives of this sector. To improve and to keep the existing one for a little longer was in line with their institutional interests (Corredor, Aug-2003).

Echeverría himself was not particularly keen to promote the construction of a new airport because it was against his own interests: it meant using his political capital to promote a project that he would not inaugurate personally. However, a decision was to be taken to solve a problem that was becoming imminent and the competition between two policy coalitions did not help. The president hesitated until independent consultants undertook further studies and concluded that SCT's proposal made more sense, at least from a cost-benefit point of view. It was, literally, during the last days of his mandate when Echeverría got the results from the study that had been sponsored by SCT and when he decided to postpone officially the project in Zumpango (Anonymous Interview (a), Aug-2003).

Even though the environment began to emerge as an area of international concern since the early 1970s (Atkinson, 1991: 13-15), it didn't figure as a predominant normative value and/or dimension of conflict during the discussions regarding Zumpango vis-à-vis the existing IAMC. The Mexican environmental movement was still incipient, there were no ministerial agencies in charge of this policy area, and the process of political liberalisation was just about to begin.[5] Therefore, the scope of conflict was restricted to struggles within the central government apparatus and the axes of conflict were limited to traditional technical, financial, and economic considerations. Environmental externalities didn't figure as part of the analysis and the main economic costs into consideration were defined as a function of the opportunity cost derived from the users' commuting time between the demand centre and alternative airport sites.

The policy solution advocated by SCT was followed in the short term, but the alternative of Zumpango was never implemented due to unforeseen events in the broader socioeconomic context. On the one hand, the 1976 economic crisis undermined the project's importance on the policy agenda and on the other hand, the land that had been expropriated for the project was eventually invaded by illegal settlements. Zumpango was discarded definitely from the policy agenda and a clear opportunity to solve the problem of Mexico City's airport capacity was irredeemably lost (Anonymous Interview (a), Aug-2003).

Other policy solutions emerged on the agenda after Zumpango became unfeasible. For example, the construction of a third runway in the existing airport was briefly considered during the early 1980s, but the adverse economic scenario at the end of Lopez Portillo's administration forced the central government to postpone the implementation of the project. Again, the environment was not a source of major concern and the main conflict cleavage was given by the technical feasibility of alternative proposals and shortly afterwards, by their financial viability. Years later the alternative of a third runway in the existing airport was also discarded, consequence of another unforeseen event: an earthquake that devastated much of the central areas of Mexico City in 1985. This external shock added to the difficult economic situation; changed the budgeting priorities of the government; and reduced the visibility and intensity of the airport project on the government-agenda. At the same time, the earthquake had medium term consequences that impinged directly on the possibility to build a third runaway. Under pressure from different groups of civil society, President Miguel de la Madrid (1982-1988) was forced to give away the land reserves that were located east of the existing airport, so that they could be used to build new housing for some of the *damnificados*, as the victims of the earthquake were called (Barges, Dec-2005; Corredor, Aug-2003).

Once the alternative of expanding the existing airport was discarded from the policy agenda, the central government –i.e. SCT- was forced to open the door for studying the feasibility and suitability of alternative sites, including those that were far away from the demand centre. This triggered, once again, the competition between different advocacy coalitions proposing their own projects to solve the problem of the limited airport capacity in Mexico City. But this time, unlike Echeverria's epoch, the advocacy coalitions were not within the central government itself. They were based on the interests of state governments and regional business elites. In a more decentralised and liberalised political scenario, the states of Hidalgo, México, Morelos, Puebla, and even Querétaro and Tlaxcala made their bids and lobbied for their own projects. Some of these options were assessed individually and some were considered as potential components of a regional system of multiple airports. The environment began to figure as

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[5] Echeverría's mandate ended in 1976 and the first serious political reform to promote a more democratic regime was an initiative of López-Portillo in 1977.

an important normative value, but traditional technicalities such as the distance to the demand centre and the cost of the project were still considered at the forefront of the decision along with 'regional development' as a side effect of building the airport in a site that was away from the central areas of Mexico City.

A compilation of existing and recently finished studies was completed towards the end of Zedillo's administration (1994-2000). Some projects were discarded due to their distance to the demand centre and others due to technical problems such as excessive mist, topographical intricacies, or logistical difficulties. At the end, only two projects were short-listed: Tizayuca in the State of Hidalgo, which was a relatively new proposal on the policy agenda; and Texcoco in the State of Mexico, an alternative that had already been considered in one way or the other throughout the 1980s.

By the time these two projects were short listed, the environment had become progressively more 'visible' (Dryzek, 1997; Escobar, 1995) and institutionalised on the policy arena. Although legal decrees were issued and existing government agencies were given new attributions since the early 1970s, it was not until 1992 that an Under-ministry of the Environment was branched out inside SEDESOL and it was not until 1994 that an independent Ministry of the Environment and Natural Resources (SEMARNAT) was created in Mexico. The surfacing of the environment as an important policy dimension and the respective institutional changes dictated new normative values, helping to reshape the concept of technical feasibility and modifying the value acceptability of the project in Texcoco –i.e. a project was now technically feasible if the environmental impacts could be minimised. These changes brought about doubts about choosing Texcoco.

It is notable that Zedillo didn't hesitate to promote the project on the basis of potential social opposition from landowners in the airport area, but on the basis of possible resistance on behalf of environmental groups. In fact, the worries about the environmental impacts of the airport in Texcoco constituted such a downside to the project that the federal government was more inclined to promote the alternative of Tizayuca at the beginning of Zedillo's administration. Some high hierarchy public servants even assure that the decision favouring Tizayuca had already been taken in December 1995, but it was never announced officially due to changes of key officials in the transport and communications sector and due to pressures from political and economic groups that lobbied in favour of Texcoco (Barges, Dec-2005; Corredor, Aug-2003). Whatever the case, the environmental considerations eclipsed other dimensions of conflict such as the potential displacement of population; and the decision was once again postponed.

The doubts about the airport's value acceptability remained within the relevant community of specialists until very late in the process of agenda formation and the competition between both advocacy coalitions continued well into the Fox administration. The uncertainties were only 'cleared up' with a new study in 2000[6] and after new comparative analyses were completed in 2001 by a group of experts from the National University (UNAM). When these studies concluded that both alternatives had important environmental impacts that could be mitigated or compensated, the decisive comparisons between Texcoco and Tizayuca became the cost of environmental externalities, the overall project cost, and the possible methods to finance it (UNAM, 2001). The environment was taken into account, but only according to a rational-administrative view (Dryzek, 1997).

The environment not only became an essential evaluative dimension, but the focus of attention regarding the legitimacy of the project. No matter that the technical analyses

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[6] MITRE (2000) *El Futuro Aeroportuario de la Ciudad de México; Estudios de Factibilidad Técnica.*

favoured Texcoco over Tizayuca policy-makers perceived that the project would face public opposition on the basis of its environmental impacts. Consequently, it seems that the strategy of the Federal Government and other actors advocating Texcoco was to stress the advantages of the project beyond the aeronautical aspects. The discourse changed Texcoco from being a 'mere airport' with socio-economic and environmental impacts that shall be compensated, into an 'integral development project', understood as an attempt to comprehensively plan long-term social and economic transformations (Ferguson, 1990: 11-17). Suddenly, it was not only a solution to satisfy the air traffic demand of Mexico City, but the possibility to reinforce the activities of the Environmental Restoration Zone of Texcoco (ERZT) and a poverty-fighting solution to one of the most socially and economically depressed zones of Mexico City: an all in one package.

It could be argued that such a discursive 'construction' showed a legitimate and true willingness to make the airport in Texcoco an 'environmentally friendly' or 'environmentally less harmful' project. It is difficult to know for certain whether this conception was merely 'discursive' because there were real engineering compatibilities between the airport and the ERZT (Anonymous Interview (b), Sep-2003); and because the environmental importance was not only stressed in public statements, but through concrete policy measures. For example, the budget for the airport project included resources for environmental restoration tasks such as reforestation, soil restoration, and hydraulic regulation (SEMARNAT, 3/09/01). And most importantly, a significant fraction of the land expropriated was not for the airport itself but for areas intended to compensate the environmental impacts. But of course, most of these measures were defined according to a pseudo-conservationist view about the environment; that is, taking into account the intrinsic value of nature as an entity but not taking into account the use value of natural resources to the population which would get lost through their displacement. It was not until the social movement that emerged from Atenco and Texcoco gained momentum and became more radical -expanding the scope of conflict and increasing its visibility and intensity-, that the historical and social specificities of the affected communities were brought to the centre of the debate about the airport.

Still, the trade-off between environmental justice and social justice in this case was exacerbated by the prevalence of *fiscal discipline* as another normative value that has become a decisive parameter for the survival of ideas on the Mexican governmental agenda, displacing and suppressing other dimensions of conflict. Since the implementation of structural adjustment programs during the 1980s, public expenditure -especially for investment in infrastructure- has been constrained and all major policy goals are now subordinated to attaining an acceptable governmental deficit. Any project that represents a deviation from this goal is discarded by the Federal Government and the NIAMC was not an exception (Domínguez, 2006: 11). In fact, one of the main advantages that kept Texcoco on the agenda was the possibility of financing the project with long-term concessions to private investors in the area of the IAMC. This was not a possibility for Tizayuca because it was necessary to keep operating the existing airport in order to satisfy the air demand in the long term.

However, there was still a problem of financial engineering. Although the existing IAMC represented an opportunity to finance part of the new airport in the long-term and the financial fundamentals would allow a much higher compensation for the affected communities (Anonymous Interview (b); Sep-2003), such resources would not be available during the first phases of the project; and therefore, it faced budget constraints in the short run. This problem of 'financial timing' was crucial in deciding that the 'best' way to launch the project was to expropriate the necessary land and offer a long-term compensation for displaced people, instead of buying the land according to its

commercial price and expected future use (*idem*). In other words, if the project hadn't included the areas of land for environmental purposes the price per square meter that was stipulated in the expropriation decrees could have been tenfold.

In this way, the emergence of the environment, understood from an administrative-bureaucratic point of view; and the subordination of the environment to fiscal discipline, created a trade-off between social justice and environmental justice as two governing principles competing for space across three aspects of the policy-making process: the focus of attention when assessing different policy alternatives (cognitive), the distribution and hierarchisation of existing agencies in charge of policy formation and policy implementation (institutional), and the construction of discourses to grant public policies with legitimacy (discursive).

IV. Case Study Two:
The Misicuni Multipurpose Project (MPP) in Cochabamba, Bolivia

The problems of water in Cochabamba can be traced back at least fifty years back in time and they can be divided up into three mutually interrelated aspects: the inadequate and unequal coverage of the water and sewerage networks in the metropolitan area of Cochabamba; the technical, financial, and administrative weaknesses of the WSS company (SEMAPA); and the lack of abundant, sustainable, and reliable sources of water below an altitude of 3,000 meters over the sea level, where most of the population in Cochabamba is settled (Rico, 21-09-05). Throughout the years, a project called Misicuni has survived on the government-agenda as the main alternative to solve the third of these problems. Its main components are a dam and a tunnel for transporting the reservoirs of the River Misicuni and other rivers located 20 Km away from the Central Valley of Cochabamba.

Even though the first conceptualisation of this project goes back to 1952,[7] a more concrete and detailed definition was not concluded until 1973 when pre-feasibility studies were sponsored by the Inter-American Development Bank (IDB) and ENDE, a State-owned electricity company (Pareja, 26-09-05). In the context of fashionable ideas such as 'integral rural development' and the 'green revolution' in the 1970s, it is not surprising that Misicuni was conceived as a 'multipurpose project' (MP), a kind of 'integral development project'. It was envisaged when normative values such as 'food self-sufficiency', 'maximisation of food production', and 'articulation of traditional rural communities to the market' were strong on the agenda of international agencies (Escobar, 1995:158-159). In this way, the original goal was not only to solve the water scarcity in the metropolitan area of Cochabamba, but to promote large scale agriculture, produce electricity to facilitate industrial activities, foster overall economic development, and transform the department of Cochabamba into a regional economic enclave that would bridge the development of the Eastern tropical areas and the Bolivian High-Plateau.

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[7] The year Misicuni was originally envisaged differs from source to source. "1952" is based on the interview to Osvaldo Pareja (26-09-05).

The concept of 'alimentary self-sufficiency' was particularly relevant in the case of a landlocked country like Bolivia that has very bad transport connections and the idea of launching multipurpose projects in Bolivia gained widespread acceptability (Rico, 21-09-05). It became so popular that other departments developed their own proposals, leading to a strong competition for securing the necessary investment. The resurgent civic regional committees played an important part in this interregional competition between different advocacy coalitions. But, like the Mexican case study, the environment was entirely absent from the list of relevant policy preoccupations and institutionalised normative values so that this conflict was fought around the question of where to promote regional development first. The departments of Santa Cruz, Chuquisaca, and Tarija lobbied for their respective multipurpose projects, but only the latter was successful in securing the necessary investment resources and in obtaining the approval of international agencies such as the World Bank. Since it was considered economically viable, technically feasible, and with impacts that could be measured in the short-term, the MP of San Jacinto in Tarija was chosen as a 'pilot' project to test the concept of integrated development projects.

Following Kingdon (1984), a window of opportunity had just opened: there was a problem –triggering regional economic development-; a suitable solution -the idea of MPs-; and policy entrepreneurs willing to promote such policy project -the Regional Civic Committee of Tarija and the military government of Hugo Banzer. Moreover, in conjunction with existing normative values the 1970s presented a favourable economic scenario. Bolivia had increased its exports of oil and the prices of hydrocarbons soared after the Middle East crisis in 1973[8] so that there were available resources to develop these ambitious development projects.

But the window of opportunity did not remain opened for long. Firstly, Bolivia experienced a long political crisis throughout 1978 and 1981. In 1978 Hugo Banzer was overthrown by a new military coup, which was followed by a second military coup shortly afterwards, free elections that dragged the Congress into a long impasse concluding with the designation of an interim president, another military coup by Alberto Natusch whose mandate was disastrous, the transfer of power to a civilian, and yet another military coup followed by three direct transfers of power before the democratic elections of 1982. And secondly, on top of the political complications, the economic scenario worsened. The prices of tin –the main Bolivian export product- deteriorated between 1978 and 1982; the prices of oil plummeted in the early 1980s, triggering a debt crisis in much of the developing world; and electricity prices in Bolivia had deteriorated historically in a way that the original idea of using the generation of electricity to subsidise the implementation of a MP was not feasible anymore.

In 1982 Hernán Siles Suazo won the elections as a candidate of the UDP coalition and led a populist government whose economic policies triggered a process of hyperinflation in the country and aggravated the already serious problems of macroeconomic instability. After 1985 the response of the next president -Victor Paz Estenssoro- was to launch a series of stabilisation policies and other structural adjustment measures which marked a departure from the state-based developmental model and signalled radical changes in public policy discourses, normative values, and policy parameters associated with them. There was a diminishing importance of the respective discourses of 'integral development' and 'integral rural development'. Normative values such as 'alimentary auto-sufficiency' and policy ideas such as that of the 'green

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[8] The Bolivian production of oil increased almost 50% between 1970 and 1975. See Mesa and Gisbert, 2003:860.

revolution faded away'; policy values and policy principles such as fiscal discipline, private participation, and investment attractiveness became more salient.

An important driving force of these changes were the conditionalities imposed by international agencies such as the IMF and the World Bank in order to access international funding and the renegotiation of foreign debt (PSIRU, 2002 (a): 5, and PSIRU, 2002 (b): 10). For example, part of the conditions imposed by the World Bank to grant the necessary credits for reorganising the electric sector in Bolivia included clauses on the magnitude and kind of projects that the State could implement. From now on, the Bolivian government was bound to ask for the explicit approval of this institution if it was to launch any hydroelectric project exceeding the production of 10 Megawatts or an investment of 10 millions USD (Rico, 21-09-05). Thus, at least in the short term, the MMP was *de facto* excluded from the decision-agenda.

These changes not only affected the implementation of big infrastructure projects. Reforms took place across different policy subsystems through a positive feedback mechanism or in other words, through '…a self-reinforcing process that accentuates rather than counterbalances a trend…' (Baumgartner and Jones, 2002:13) Once the positive image of a state-led developmental model collapsed in the early 1980s, increasing the number of actors that wanted changes in the *status quo* and increasing the expectations that such changes could be successful, the idea of private sector participation (PSP) followed a domino effect, spreading a problem redefinition and permeating different economic sectors.

When Sanchez de Lozada became president in 1993, his main challenge was the implementation of a second generation of economic reforms that would not only enhance macroeconomic stability, but also promote economic growth and development. The most important of these second generation policies was the *capitalisation* policy, designed to attract private investment to State enterprises. [9] It was implemented in the telecommunications, electricity, and transport sectors in the same year. The hydrocarbons sector, originally in the hands of YPFB, was capitalised in 1996. The language and discourse of PSP reached the water and sanitation sector by 1994, when donor funding began to be funnelled to support institutional reforms (Laurie et al, 2004:12); but it became more important in the following three years, when more institutional actors began to talk about PSP as a potential solution to improve the sector's performance to the extent that private participation was often discussed as having importance on its own.

The prevailing idea that the public sector should limit its role in the economy to be a mere facilitator of market processes, narrowed down the availability of policy solutions to solve the three different problems concerning the water sector in Cochabamba. The most important was the idea that WSS should be privatised through a long-term concession and that such concession should include the commitment to build the infrastructure necessary to solve the problems of water supply in the long-term. In other words, Misicuni or any other infrastructure project should be implemented now through private sector participation.

But the magnitude of the MMP was not only inconsistent with the predominance of new normative values such as fiscal discipline and the existence of new budget constraints. It was also inconsistent with the subjective and objective parameters that should be taken into account to guarantee its attractiveness from the investor's point of view (Rico, 21-09-05). Already in 1991, external consultants and representatives from international agencies had changed their minds regarding the project's economic and

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[9] The *capitalisation* scheme worked as a kind of joint venture: the government contributed State assets to found a new company in which new private investors had 50% of equity and management control in exchange for new investments. The other 50% of the share was transferred to pension funds benefiting all adult Bolivian citizens.

financial feasibility (Lopez, 13-09-05, cited in Domínguez, 2006:14). Some advised to completely discard the project from the government agenda and others, to adjust it so that it could be implemented in three successive phases –drinkable water, irrigation, and electricity-, with the first phase being the first and most important. Furthermore, other technical details such as the height and capacity of the dam should also be adjusted. In other words, the project should be redesigned to fit existing macroeconomic and financial restrictions; and to improve its investment attractiveness.

This opened the door for considering alternative projects that were not envisaged with the idea of regional development in mind and therefore, that could compete on the basis of a more narrowly defined cost-benefit analysis. The most important was the proposal to carry water from the Corani River and surrounding basin to supply the metropolitan area of Cochabamba. The discussions about Misicuni vis-à-vis Corani reached their peak at the end of Goni's mandate. The first project was advocated by a well-consolidated coalition, constituted by local authorities, representatives of the Misicuni Corporation, and broad sectors of civil society in Cochabamba. By contrast, Corani had appeared on the government agenda in the late 1990s, almost contingently, as a by-product of the capitalisation scheme that was implemented by GSL; and therefore, the respective advocacy coalition was not well consolidated. There were few actors, other than the president himself and some close aides, who favoured this project. Not surprisingly, Goni failed to reform the WSS in Cochabamba and to include Corani as part of this policy solution.

As in the Mexican case study, it is noteworthy that the postponement of Misicuni was not related to concerns about its environmental and social impacts; but rather a consequence of struggles along other conflict cleavages such as regional development during the 1970s and fiscal discipline and investment attractiveness throughout the 1980s and 1990s. The environment only became more visible when the Water War erupted in the year 2000, shortly after WSS were finally privatised. In this context, the movement of resistance that was led by the *Coordinadora del Agua* was based on a very simple and yet powerful thought: the idea that water is a condition for the reproduction of life, that the right to water is inalienable, and therefore, that its management concerns everybody (Grandydier, 18/08/05; López, 18/08/05). This social movement was part of a struggle to protect existing uses and customs that regulate the access to water in rural areas. It was also a reaction against a leasing process that had been surrounded with secrecy; against new regulations that were excessively biased towards the interests of potential private investors; and against a disproportionate increase in water fees. *But* it was certainly not an attempt to stop the Misicuni project itself. In fact, some sectors of civil society expressed concern that the concession didn't guarantee its implementation. In other words, the conflict in Cochabamba brought back important dimensions of conflict such as the importance of uses and customs in rural areas and introduced new normative values such as the importance of a more participatory definition of policy-making process; but it also contributed to suppress others.

To date, the future of Misicuni is relatively uncertain because financial constraints represent a big obstacle in a context where fiscal discipline continues to be a predominant normative value. Still, the first engineering stage, which consists of building a tunnel of more than 20 Km has already been finalised and therefore, the opportunity cost of not implementing the rest of the project has increased substantially. It is likely that the Misicuni dam will be constructed sooner or later and yet, little concern has been raised about the project's environmental impact and about the population that will be displaced once the area is flooded. This is even more striking considering that dams have traditionally triggered strong social and political opposition in other countries –e.g.

Mexico and India-, on the basis of their social and environmental impacts. The thesis of this paper is that throughout these years these two dimensions of conflict have been subordinated in the context of other policy preoccupations and that even during the Water War, the environment was only raised selectively, by stressing a limited number of conflict dimensions.

IV. Conclusions and Final Remarks

How and under what conditions is 'the environment' taken into account as an evaluative dimension when assessing large infrastructure projects? Is there an intrinsic conflict or trade-off between 'social justice' and 'environmental justice' when assessing large infrastructure projects?

In order to answer these questions, this paper has located the traditional preoccupations of political ecologists within a broader and more general conceptual framework to study public policy. Based on Schattschneider's theory of political conflict, it has explained the processes of policy formation and policy implementation as a function of competing policy goals, normative values, and evaluative dimensions among which the environment –or the environments- is only one. The two examples presented are the project for a new international airport in Mexico City (1964-2000) and the Misicuni Multipurpose Project, aimed at solving the problems of water scarcity in Cochabamba, Bolivia (1952-2000).

The conceptualisation of both projects –the NIAMC and the MMP in Cochabamba- and the respective discursive constructions followed opposite historical trajectories. Whereas the idea of Misicuni went from a grand scale endeavour that would serve multiple purposes –i.e. regional development- to a project that was necessary for solving a narrower problem – supplying drinkable water-, the airport project followed a different course; it went from a project that was necessary to solve a very specific problem –airport capacity- to a much ambitious enterprise that would contribute to solve different policy problems –regional development and environmental restoration. Yet, the underlying logic was the same: based on prevailing normative values, policy makers granted more importance to a limited number of analytical dimensions and conceived the projects accordingly. Since the importance of and the relation between different normative values changed through time, the policy proposals were also adjusted to respond to new economic and political circumstances, giving place to potential tensions between different policy goals.

The role of the environment, the different definitions of the environment, and the relation between environmental justice and social justice should be understood within this framework and in the context of a continuous 'conflict of conflicts' (Schattschneider, 1975:66). On the one hand, the Mexican case study illustrates how environmental concerns about the new airport were not visible until the early 1990s, when they became so predominant that suppressed other dimensions of conflict such as the potential displacement of population. However, the trade-off between environmental justice and social justice was exacerbated by the prevalence of *fiscal discipline* as another normative value that has become a decisive parameter for the survival of ideas on the Mexican governmental agenda. On the other hand, the Bolivian case study illustrates the absence of environmental concerns throughout the history of the Misicuni project. In this case, the environment has been displaced by other dimensions of conflict such as interregional competition for financial resources; the emergence of policy alternatives that were in line

with fiscal discipline; and finally, by other conflict cleavages that emerged in the context of the Water War in the year 2000.

As a final remark, it is important to stress that this work has a historically-descriptive character. It doesn't attempt to exhort or prescribe what position should the environment have in relation to other normative values as this is an issue that concerns the area of Environmental Philosophy. However, the conceptual framework here provided may help to square the results of any philosophical debate within a realist view of the policy process. For example, a deep and maximalist environmental view means that the environment should prevail over other normative values 'no matter what', whereas a reformist political ecology implies that environmental concerns should be negotiated in the context of other policy preoccupations.

The first alternative is hardly compatible with the development needs of Latin countries as, for example, most of the infrastructure projects that have been identified as a development priority to sustain the macro-economic development of the region would necessarily be cancelled or indefinitely postponed. These not only include airports, highways, or gas pipelines but other projects that will be essential to palliate the disastrous consequences of climate change. A clear example is all the projects that will be necessary in Bolivia, Ecuador, and Peru to increase the reservoir storage capacity in order to face the debacle of glacial melting in the Andean region (Painter, personal communication; UNDP, 2006). The second, reformist alternative implies that whatever environmentalism and whatever definition of the environment is taken on board will still compete with other normative values; and therefore, it should be accompanied with a new procedural and operational understanding of democracy as a competitive system that favours the socialization of conflict rather than its displacement or suppression.

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