Graduate School of Development Studies

DEVELOPMENT, ENVIRONMENT and INDIGENOUS PEOPLES' CULTURE

Gaps in Environmental Assessment Instruments

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List of Acronyms

CIT: Countries in Transition
EIA: Environmental Impact Assessment
EISA: Estudio de Impacto Socio-Ambiental
EK/TEK: Ecological Knowledge/Traditional Ecological Knowledge
IDB: Inter American Development Bank
ILO: International Labor Organization
IP: Indigenous Peoples
IPP: Indigenous Peoples Plan
LDC: Less Developed Countries
NEPA: National Environmental Policy Act
NGO: Non Governmental Organization
RP: Research Paper
SIA: Social Impact Assessment
UN: United Nations
UNEP: United Nations Environmental Program
WB: World Bank

Abstract

The way in which indigenous peoples conceive nature is shaped by -and shapes- their culture. Environmental change thus has a direct impact on it.

This paper analyzes the relation between development projects, environmental change and indigenous peoples. Its objective is to identify the main socio-cultural aspects affected by environmental change and show that they are not being properly taken into account by the main impact assessment instruments; and why it is important to incorporate them.

An analytical review of the main literature on the topic has been carried on in order to define the main concepts concerning this complex topic; including the description and identification of gaps in EIA and SIA as the main environmental assessment instruments. Once defined, they have been applied in the analysis of three development projects: the Inter-oceanic highway in Peru, the Chad-Cameroon pipeline and the Nam Theun 2 dam in Laos.

This research found out that cultural factors are actually poorly or not properly included in the EIA/SIA approved for each of the cases; and following the bibliography analyzed, this can be said for mostly all kind of projects concerning indigenous communities. For this, a list of the cultural aspects shared among indigenous populations regarding their relation with the environment is included. This list does not pretend to be exhaustive as it only includes the shared aspects found in the cases; and of course each of its components needs to be adapted to every specific indigenous culture.

Keywords

Development, environmental change, indigenous peoples, culture loss, EIA, SIA

WHY DO WE CARE ABOUT CULTURE?

As mode of introduction, this paper has to start by repeating an idea found several times in the literature related to its topic: *culture* is an extremely complex concept without a unique definition (Steward 1955; White 1959; Moore 1974; Macnaghten and Urry 1998; Jhonson 2000). Coincidently, the same statement can be applied to the other key concept of this paper: *nature*. Here it is useful to point out that following Macnaghten and Urry (1998) for the sake of this paper the terms *nature* and *environment* are used indistinctively.[1]

This research is concerned with the impacts that environmental change has on indigenous peoples' culture. More specifically, it explores the link between environmental change and socio-cultural change that is often left aside when doing impacts assessments. But why is it important to include the cultural aspect in such assessments? The answer seems to be quite simple: If one does not consider it then the picture is incomplete. However, this should not trick us; its difficulty lays in the fact that this answer changes on the eye of the beholder as the very concept of culture and its value is different for different actors.

Even when *occidental/western* and *indigenous/traditional* are not opposite concepts, it is necessary to indicate that this paper considers that there are differences between them and as they refer to different kinds of societies, their worldviews have distinctive features and as such the way in which each of them define nature is also different.

Based on *western* culture, preservation of traditional culture is more related to the concept of pristine nature: one have to take care of indigenous peoples' (IP) culture as it is part of *the wild* (Cronon 1998); that inalterable world that should remain like that as a escape for the civilized humans, as a facility to run away from the city chaos and routine. The perception of nature from this perspective look at it as the world's grocery store that provides human with the natural resources needed to live (and in many cases that means to satisfy their greed).

From an indigenous perspective, culture is not this fashionable package of colourful clothes and rituals that we look for when travelling to exotic places. It is just a way of life, the normal day to day practices performed to survive. All the knowledge passed from generation to generation since immemorial times. In sum, it is the base of their identity, of what they are now and how do they relate to nature. In this sense, nature is seen as an inherent part of their identity.

The debate around the demand for respect culture has not reached a convincing conclusion yet. Within the different positions regarding this topic, this paper is interested in two of them: The first one is related to the intrinsically value of culture. This is the value that culture has just for existing as a *thing* or good itself. The second assigns a value to culture only in relation to the interest of individuals among a given community. So culture is valuable only when it is useful for somebody. Both ideas have as common assumption that culture must be respected, but have different perspectives about the reason why (Johnson 2000).

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[1] For more information about the evolution of the environmental discourse from nature to environment see Macnaghten and Urry (1998: 32-74)

This paper considers that both arguments are equally important and are not necessarily exclusive. Culture is as valuable as any other aspect of life because of its usefulness and the benefits it provides to the members of a given society, may it be as individuals or as a whole group. Nevertheless, one can even go beyond both arguments and explain the necessity to respect culture as it is the manifestation of the judgements and choices of individuals, those individuals belonging to a given culture. This explanation constitutes a stronger argument on which to build the politics of culture, and thus to show that culture is something real, more 'material' one can say; and not only an idea or abstraction (Kroeber and Kluckhohn 1952; Linton 1936; Spiro 1951 in White 1959).

It is not then that culture changes as a concept, what changes among different societal groups is the ways in which cultures manifest themselves. According to White all those things or events that need to be symbolized are culture when interpreted in an extra-somatic context. So rituals, traditions, tools and so on, are not merely human behaviour, but when considered in relation to each other instead of related to the human organisms that *perform* them, all of them constitute culture; and as such can be treated independently of the human factor behind them (Lowie in White 1959).

For IP these values of culture are intrinsically related when talking about the definition of nature. Nature is conceived as part of their existence, there is no difference between people and nature in the sense that it is not considered as an external world that is there only to bring some kind of benefit, or to allow human life. Nature is a constitutive part of life. In what Salmón (2000) calls *Kincentric Ecology* this relation means that life as a complex structure is only viable when humans understand that nature has an effect on them and at the same time, we humans have an effect on nature. For IP then, this relation is as fundamental and subsumed as the relation we occidental people have with our parents or brothers; and this marks the difference between these two worldviews. The definition of nature from an occidental point of view does not escape from the influence of capitalism as it is the dominant system of occidental societies; and as such it is valuable in relation to the benefits humans can get from it.

When development interventions take place in indigenous communities, they rarely include the impact they may have on their culture in their impact assessment. It does not mean that they do not care about it, it is just that their focus is to *help* IP to overcome a given constrain, and the solution brought by this *aid* is of course defined according to the aid givers values and own culture.

The main objective of this paper is to identify which are the main cultural aspects affected by environmental change due to development projects are; and then to show that they are not being properly taken into account by the main instruments dealing with environmental change and why it is important to incorporate them. In order to show how these impacts affect IP in general this research looks at the impacts globally in the sense that after analysing how the main instruments to evaluate projects' impacts deal with cultural issues. Three examples with different impacts on different indigenous communities with different cultural patterns, in different locations across the world are used to link it with reality. How development projects take place around them, how the cultural aspects are being incorporated or ignored, and the consequences of doing so are analyzed. In this sense, this paper looks to answer the next question:

To what extent is the relation culture-nature taken into account when doing environmental assessments for development projects?

The analysis will be supported with these sub questions:

What is the relation between culture and nature for indigenous people?

What are the main gaps in environmental assessment instruments regarding this relation culture-nature?

What are the effects of the environmental change produced by development interventions on indigenous people's culture?

Understanding the problem: the causal link between projects; environmental change & cultural loss

Any kind of intervention, even when intended to promote development, could have negative impacts on the people's way of life. This paper focuses on the environmental changes generated by development interventions and the fact that even after they have been assessed by formal instruments, and thus impacts are identified and mitigation measures are taking place; they could lead to social impacts, precisely to cultural changes among indigenous communities.

Important studies have been done about global environmental impacts, but usually the cultural aspect is left aside, focusing mainly in the physical implications of such changes. The same happens at the micro level. The main instrument to identify environmental impacts of projects and propose alternatives to face them is the Environmental Impacts Assessment. It is implicit that it recognizes that environmental change has impacts on social aspects (of indigenous communities in this case); it includes one section of *social assessment*, but normally it is poorly developed, considered by some as the 'poor cousin' of biophysical assessment (Dale, Taylor and Lane 2001).

EIA was created with the National Environmental Policy Act (NEPA), it included social aspects within environmental assessments as it states that it is needed to consider human environment with a holistic approach that includes natural and physical environment as well as the relation that human beings have with them. In this sense, it must not only be referred to direct impacts, but also to 'aesthetic, historic, cultural, economic, social, or health' effects that should occur directly, indirectly or in a cumulative way.

The relevance of this RP is related to the nature of the human-environment relation itself. To understand this relation, the political ecology approach is mainly applied in the analysis, as a broader approach that includes cultural ecology concepts and aims. In order to have a more comprehensive framework, we will also bring into play anthropological approaches related to the indigenous conception of nature.

According to the UNEP there are 350 million indigenous people in the world[2]; this people have developed lifestyles and cultures which are intricately tied

[2] Cultural Diversity and Biodiversity for Sustainable Development (UNEP: 2003)

to nature. Thus, environmental changes affect the community's social structure, i.e. the groups in the community and the patterned ways these groups interact, and their culture. If nothing is done to preserve these cultures, these changes might jeopardize the knowledge that they have about the environment and the various and many benefits that humankind can derive from it.

The relevance and justification of developing this topic consists not only in the systematization of experiences and the identification of the main gaps among EIA and SIA, but also in ending up drawing a kind of *check list* of socio-cultural aspects that should be considered when assessing environmental impacts.

Methodological Issues

Secondary Data

The arguments in this paper are based on a critical review of the literature generated by academia specialized in the topic. Specifically, the review of issues related to culture and indigenous people, environmental change, projects impact assessment instruments and culture change.

It includes the analysis of three development projects taking place in indigenous communities' surroundings, which counts with an approved Environmental Impact Assessment and Social Impact Assessment. The first one is an infrastructure project taking place in the Peruvian Amazonia; the second one analyzes the impacts that the construction of the Chad-Cameroon Pipeline has on the Bakola people; and the last one is located in Laos and sees the impacts of dams in indigenous communities.

Access to the information needed was provided by environmental NGOs working on the cases. The analysis thus is based on the official project's documents and the reports of the NGOs involved in each case. This will show that even when accomplishing the formalities required by the pertinent authority, there are impacts due to cultural factors that were not taken into account in the project design and/or implementation.

Limitations encountered

It would have been preferable to analyze one specific case in order to present a deeper breakdown of the impacts and the changes taking place in a given community. Due to time and budget constraints it was not possible; though this paper will be the base for a further research on the present topic. In this sense, the aim of this paper is to serve as a guideline to identify those cultural factors that should be included to reduce negative impacts on indigenous people culture.

A second limitation is related to the nature of the topic itself: the lack of the inclusion of cultural issues in impacts assessments. It is kind of easy to find EIA that do not include culture properly, but it is not easy to obtain the *in situ* information to contrast how this exclusion generates impacts.

As a personal issue, having a professional background on Law is not a really helpful characteristic. The bias to apply a certain kind of legal analysis is not always applicable to a more anthropologic field like this one. As a counter argument to this, the issues of culture and indigenous people have always been a personal interest and the experience working with indigenous communities in Peru has help

me to better understand the worldview of indigenous people in general, though it is necessary to admit that my theoretical knowledge about ethnography is very limited.

The fact that most of the literature found was written from a *pro-indigenous* perspective has acted as a constraint that enforces the bias to adopt a romantic point of view regarding indigenous issues. It seems that anthropologists tend to idealize what being indigenous means in order to protect them. This issue is explained in more detail in the conclusions.

Lastly, reading and reviewing literature have contributed to enforce a personal frustration concerning the way in which development is conceived as it is a manifestation of the actual hegemonic power of capitalism. But as this issue goes beyond the scope of this paper, it is only mentioned here as a warning that some strong statements can be found regarding this concern.

Structure of the Paper

This paper contains six chapters. The second one defines the key concepts behind the main question: what do we understand by Development Interventions, Environmental Change, Culture and Indigenous People, and Cultural Impacts; and how these concepts relate to each other and are applied in the analysis.

The third chapter analyzes and evaluates the main impact assessment instruments that are required to every development project to take place. In this sense it defines and explains what Environmental and Social Impact Assessment are; their aim and scope and how they are related.

Chapter four is about the relation human – nature and how development projects affect it. The previous chapter is used as the base to identify what are the main gaps in these instruments concerning cultural issues regarding this relation.

In the fifth chapter three cases show how this causal chain takes place; that is to show that there is a correlation between development projects, environmental change and culture changes; and how their respective EIA/SIA dealt with it.

Lastly, the sixth chapter draws some conclusions and recommendations to reduce negative impacts in indigenous culture while looking for *development* trough the implementation of different kinds of projects. This chapter includes a list of different cultural aspects that should be included in the main instruments previously analyzed.

KEY CONCEPTS BEHIND AND HOW THEY ARE INTERLINKED

As it was said before, the main concepts used in this research are contested. It is thus useful to present the definitions considered in the analysis carried on in this paper and how they relate to each other.

Development Interventions

There are different opinions about what *development* is. It can be seen as a rough process or as a friendly one. The fact is that as a process it evolves; and this evolution implies change. According to Schech and Haggis (2000) its definition includes these basic points: it is a process, a desirable objective, it is linked to material progress and the improvement of living standards of those underdeveloped, and most important it is closely related to modernization. Following Long (1998: 234) then, it can be said that:

> …development interventions are always part of a chain or flow of events located within the broader framework of the activities of the state, international bodies and the actions of the different interest groups operative in civil society. They are also linked to previous interventions, have consequences for future ones, and more often than not are a focus for intra- and inter-institutional struggles over perceived goals, administrative competencies, resource allocation, and institutional boundaries.

In this paper development intervention is understood as the actions intended to increase developing countries' ability to face their actual constraints and sustain themselves in the future. These projects normally involve improvements in infrastructure, educational facilities, and extraction of natural resources, among others. And thus are instruments for partner support aimed at promoting development. In principle it takes place in a defined time-space setting relating two parties, the *intervening* or those who fund/implement the project; and the target or recipient groups, the *beneficiaries*. Or in Ellerman's (2001) words: the *helpers* and the *doers*.

Development interventions can not be seen in isolation. It is limited to a certain time and space. Every intervention goes beyond the time scope defined by its design. The cumulative experiences of the people that were affected (positively or negatively) by the intervention will influence in how they embrace future interventions, and how they perceive the intentions of those in charge of its implementation. Every time an intervention takes place, it produces a change on the life of the beneficiaries; it does not matter the magnitude of the change to have to consider the effects it could have. There lays the importance of counting with proper impact assessments that includes and reflects all the variables that could be affected, including cultural factors as they can not be seen as separated from development and vice verse.

In many cases what happens is that the intervening parties see a problem and figured out a solution without considering if the beneficiaries share that concern. From an occidental point of view, there are things considered as lacking in indigenous societies; facilities to provide, behaviors to change, situations to improve… and these things may not being seen as such by IP themselves because

cultural issues can be critically important for development as they constitute a way of life.

Further in this paper there is an analysis of three cases that show how development projects manage (or ignore) cultural issues. Even though these examples are different in nature and location, and in the environmental impacts they generate; all of them ended up harming indigenous people culture in one or another way.

Environmental and Social Change

Environmental change has been defined as the 'changes in the global environment (including alterations in climate, land productivity, oceans or other water resources, atmospheric chemistry, and ecological systems) that may alter the capacity of the Earth to sustain life.[3] These changes have consequences not only in the environment itself, but also in social, political and economical aspects of societies.

Social Change is understood as the process by which a shift in a society's patterns or values happens. Following the Conflict Theory of social change, it has been said that for a change to occur it is necessary the presence of stimuli (Appelbaum and Chambliss 1997) such as population growth, acculturation, new technologies or changing environmental conditions. According to Vanklay (2002) social change processes are triggered by interventions such as projects, programmes or plans, and develops independently of the surrounding context in which them take place. In this case the development projects act as the trigger that generates change.

Sen (1999) points out that the economic and social changes that take place with development have an influence in the valuation of cultural issues. This influence can be positive or negative as culture is intrinsically linked to development as it defines the behavior of people and how they see development. As it will see later, this perspective will change from society to society as their cultural backgrounds vary.

Still, social change remains a vague concept as there is no consensus about its definition. Societies are dynamic by nature; change is inevitable and depends on individuals, on their will and the actions they take. By nature society also tends to resists change and it creates conflicts.

As it may now be deduced, environmental change generates social change as it requires society to adapt to new conditions. Every time a new project is implemented in areas where IP live or develop any kind of activity (economic, spiritual, recreational or whatever), it changes the surrounding environment. As the degree of the changes varies with the magnitude of the project, it is necessary to be sure that affected peoples' resilience capacity is strong enough to face that change; and this adaptation could lead to the loss of traditional ways, depending on how deep the change induced is. As it is shown later, this relation is not properly addressed when evaluating impacts.

[3] U.S. Global Change Research Act of 1990

It is important to indicate here that cultural change is considered within social change; and because of that it has been treated only as one aspect of it. The relevance of cultural issues in its more specific connotation is not really studied in the *development* field.

Culture and Indigenous People

A long time ago, Eliot (1948) talked about how the word *culture* was being misused. After all these years there is no consensual definition of what culture means and implies yet. This paper though agrees with the definition given by Tylor (in White 1959: 227) more than a hundred years ago:

> Culture… is that complex whole which includes knowledge, belief, arts, morals, law, custom, and any other capabilities and habits acquired by man as a member of society.

It is also useful to clarify the terms multiculturality and interculturality. The first one is related to the recognition of the existence of many cultural groups within one country or region; which does not mean that there is an effective equalitarian treatment. The second one instead implies the interaction among different indigenous and cultural groups within a country or region regarding shared rights and responsibilities. Interculturality also implies that this recognition of diversity takes place with tolerance, equity and respect of the differences among them.

Cultural and intellectual sovereignty of the indigenous settlers is not usually recognized; on the contrary IP are disqualified as protagonists of their own development even though there is recognition of the value of indigenous technologies and knowledge; their *cultural patrimony*.

Cultural patrimony is formed by material and immaterial elements. Included in the first group are their movable and immovable cultural objects of ethnographic, historical and archaeological nature. The immaterial elements are constituted by the language and the intangible cultural inheritance (art, rituals, beliefs and traditions). Currently, the international community is giving more and more value to the ancestral knowledge and its applications in diverse fields (engineering, health, art, etc). But this recognition is still incipient and it is not managed to translate significantly in the overcoming of extreme poverty conditions in which these people live.

As this paper focuses on the impacts that affect IP's culture, it is necessary to specify what is implied when talking about IP. In this sense it follows the definitions given in the ILO Convention No 169[4] and the Martínez Cobo Report

[4] Article 1.-
1. This Convention applies to:
(a) Tribal peoples in independent countries whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations;
(b) Peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonization or the establishment of

prepared for the United Nations Sub-commission on Prevention of Discrimination and Protection of Minorities[5].

The United Nations Environmental Programme (UNEP) considers IP as one of the main stakeholders in the process of development as they have a really close relationship with their surrounding natural environment and are extremely vulnerable to the impacts that interventions may generate on it (i.e. logging, mining activities, pollution and climate change). But actually they are rarely considered when planning development in despite of the fact that they will be the most affected by environmental changes due to their dependency on their natural environment.

Traditional knowledge, technologies adaptation, and ancestral ways of resource management can increase the resilience of the ecosystems impacted by development projects. It is a two ways road: ecosystems depend on IP as much as these depend on them to survive.

Social and Cultural Impacts

Social impact as the result of development intervention may be intended or unintended. In fact, the concept or lack of a concept of social impacts is one of the main reasons why it is difficult to reach consensus in what should be include –and how to measure them- in social impacts assessments. But there is a consensus respecting the fact that it is impossible to define the whole range of social impacts as social changes generate other changes; and the concept of impact is socially constructed based on the different values of each society.

Several specialists have tried to set a list of types social impacts (Branch et al. 1984; Armour 1990; Gramling and Freudenburg 1992; Juslen 1995; Taylor et al. 1995; Vanclay 1999); although useful this kind of lists can not be considered as complete or fixed and they do not specify impacts themselves as these vary depending on the context; even within a given community.

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present State boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions.
2. Self-identification as indigenous or tribal shall be regarded as a fundamental criterion for determining the groups to which the provisions of this Convention apply.
3. The use of the term "peoples" in this Convention shall not be construed as having any implications as regards the rights which may attach to the term under international law.

[5] Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal system.
Study of the Problem of Discrimination against Indigenous Populations by Jose R. Martinez Cobo. UN Doc. E/CN.4/Sub.2/1986/7/Add. 4.

The Interorganizational Committee on Guidelines and Principles for Social Impact Assessment (1995:11) defines social impacts as 'the consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society'.

Although social impacts can be reflected by quantitative and qualitative indicators, most of the assessments tend to focus on quantifiable variables such as income increase or demographic changes. Qualitative indicators such as the perception of people about the environment and the different values they assign to natural resources (religious, cultural, etc) are often ignored.

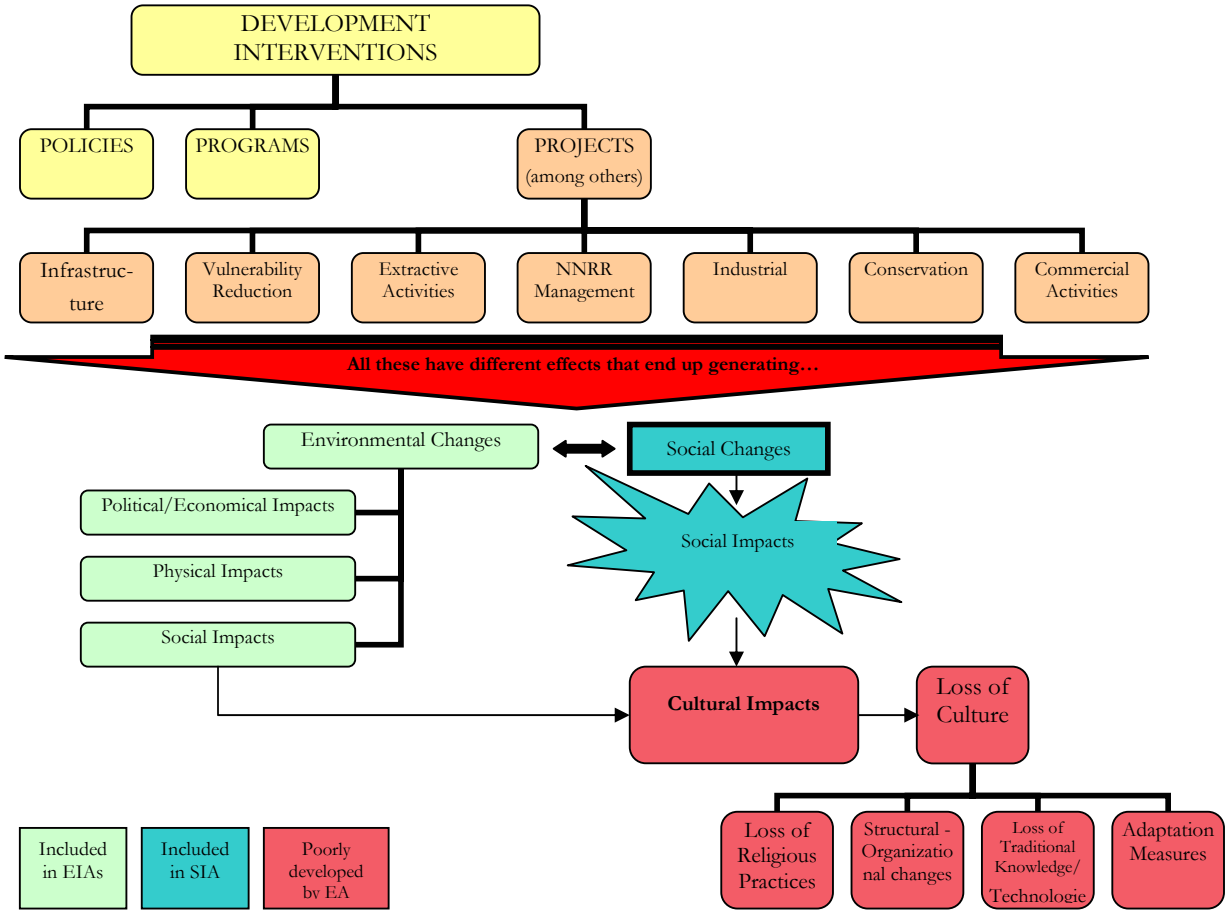
Within social impacts, cultural aspects are not receiving the importance that they deserve. Cultural impacts involve changes in the way people see their natural and social environment, their norms, values, beliefs, and perceptions. According to Vanclay (2002: 205) the concept includes 'all impacts (changes) on the culture or cultures in an affected region, including loss of language, loss of cultural heritage, or a change in the integrity of a culture (ability of the culture to persist)'.

The Framework of Analysis

This paper's premise is that any kind of intervention, even when intended to promote development, could have negative impacts on people's way of life; and so it focuses on the environmental changes generated by development interventions; and the fact that even after they have been assessed by formal instruments (impacts and mitigation measures identified) they could lead to social impacts, precisely to cultural changes among indigenous communities. The three cases included later show that these impacts are not properly considered within EIAs and specifically, cultural aspects are neither properly considered within SIAs.

The diagram below shows the assumed causal link between development interventions and cultural changes; highlighting the area in which there are gaps considering cultural issues.

Figure 1
Analytical Framework: The Causal Link



Source: Self-designed (2008)

The political ecology approach (as it includes cultural ecology concepts and aims) is used to understand the causality chain described above and how the interactions between IP and their environment are shaped and shape their culture. For this, the analysis along this paper keeps in mind Shubert's (2005) questions regarding political ecology's scope:

> (i) how both nature and societal structures determine each other and shape access to natural resources, (ii) how constructed concepts of society and nature determine human-environment interactions, (iii) the connections between the access to, and control over, resources and environmental change, and (iv) the social outcomes of environmental change.

Most of IP depend on a specific territory. Many have developed production systems that are stable, energy friendly and sustainable, and that adapt very well to their environment. They occupy their ancestral lands, whose quality and size have been progressively reduced due to demographic growth and the pressure of dominant groups.

Projects that imply a reduction of natural resources or extra degradation of the land can lead to the impoverishment of these people. As these groups have few

chances to find alternative activities to sustain their livelihoods, the most common option seems to be to intensify the exploitation of whatever is left, having as a result environmental degradation. That is why in many occasions the experiences related to development projects have not been satisfactory. Mainly because there has been a lack of understanding about their real needs, or because the design and evaluation of development plans have not been done having the local context in mind. In consequence, it is easy to find projects whose development goals have not been achieved; and whose environmental impacts have led to environmental degradation and people impoverishment.

Within this context, indigenous people all over the world have been heirs and guardians of a rich cultural and natural patrimony in spite of the dispossession of their ancestral lands and territories, and the deprivation of their ethnic, linguistic and cultural identity. Currently, while integration and globalization processes present greater challenges for IP, it is becoming more evident that this natural, cultural, social and moral patrimony represents not only the key to recover and to improve their standards of life; but also that it is an opportunity to enrich and facilitate -by means of intercultural processes- the articulation of different societies.

There is a high degree of correlation between the geographic locations of areas of high indigenous occupation with areas of high ecological vulnerability (UNEP 2003). This makes clear the necessity to combine strategies of socioeconomic development with strategies of biological conservation; and again, it sets us in a context where the recognition, rescue, preservation and enforcement of the indigenous cultural and natural patrimony are key elements for their own development strategies.

The recognition of indigenous rights over their lands and natural resources is not only important to ensure their subsistence activities, but mostly it is important to guarantee their territory as it defines the cultural and social space necessary for their physical and cultural survival. As well, it is also important to recognize their right to a high level of autonomy regarding the management of their development. This implies to recognize the right to have their own organizations, management structures and decision-making processes with respect to their economic and social development; and also the recognition of the indigenous legal system and consuetudinary rights.

Traditionally, indigenous societies have adapted well to their fragile surroundings. This has provided them with a great knowledge about the natural resources on their territories, and the adoption of some times very complex techniques to manage this habitat in a sustainable way. IP consider themselves as an integral part of nature instead of considering it as an object of domination by the human being. Many times, the efforts to improve the situation of IP are based on the idea that to develop they have to sacrifice their culture and identity and to assimilate or to integrate themselves in the national/global economy and social patterns. This is a paternalistic approach that promotes dependency, turning out to be a new kind of colonialism.

The reinforcement of the cultural identity and the promotion of sustainable development are objectives that support each other instead of being mutually excluding. When development efforts are based on the local values, practices, ancestral technologies, people aspirations and ways of organization; culture becomes an asset.

OUR INSTRUMENTS TO EVALUATE THE IMPACT OF DEVELOPMENT PROJECTS

Environmental Impact Assessment

Currently, the main instrument to evaluate the impacts that any given project may generate is the Environmental Impact Assessment – EIA. It is a planning tool that is now generally regarded as an integral component of sound decision making. Its origins can be traced to the beginning of the 70s in the United States with the promulgation of the National Environmental Policy Act (NEPA). Its use expanded to most developed countries during the 80s. It is just after the Rio Summit that LDCs and CIT's started considering it as a mandatory requisite to approve projects with *significant* environmental impacts, although this is a very subjective term that can lead to the misuse of the instrument.

It is a preventive instrument as it details not only the description of the project that is being proposed, but also the identification of the possible impacts it could generate on the environment and health. In this sense, it is defined as a policy tool that in a systematic and integrative way aim to identify possible impacts of any given development intervention with the purpose of reducing the negative effects that these initiatives and processes could have on natural and human-made environments (Lee and George 2000, Wood 1995).

According to Wilson (1995), EIA is widely the most predominant instrument to integrate environmental issues in socio-economic planning. He calls it the 'critical link between environment and development' and foresees that the evolution of it regulation is one of the most important trends within environmental legislation worldwide. As an environmental management instrument it promotes the integration of environmental planning with other forms of social and economic planning; and 'it strengthens the use of forward environmental planning as a means of reducing the number and severity of environmental problems which have to be resolved *after* development has taken place' (Lee 1983:6).

The normative on the topic prescribes that every project that could generate impacts on the environment has an EIA approved previously to its implementation. EIAs must include the description of the project to be developed, the physical, biological, socio-economic and cultural aspects present in the area of influence of the project, an evaluation and definition of the potential impacts and consequences of implementing the project; and to indicate the prevention and control measures to reduce the effects of the activity in the surrounding environment.

Done properly it will bring important, feasible information about the potential threats and benefits of the project; information that could (and should) be used by the decision makers to arrive to sounded decisions, to integrate population in the process and to promote the coordination among the stakeholders involved. But this is not always the case; Ebisemiju talks about how EIA is considered as an external separate exercise, different and not included in the planning and design phases of a project. This has been a limitation to the instrument as it should take place "at the inception of the proposed action when there is still a real choice between alternative courses of action… as well as the alternative to do nothing' (1993: 266).

Even though it was establish since the beginning that it should include the assessment of economic, cultural and other consequences; EIA focuses mostly in the physical impacts that a project could generate. The inclusion of social impacts is narrow and poor within EIAs, and it should be complemented by a Social Impact Assessment (SIA). The next section will go a little bit further in this topic.

Social Impact Assessment

SIA also emerged with the approval of NEPA in 1969. It is mainly tough as a part of EIA: the social component of environmental assessments.

For this paper SIA is the methodical analysis of the impacts that any action could have on the daily life of people and communities; the 'process of assessing or estimating, in advance, the social consequences that are likely to follow from specific policy actions or project development, particularly in the context of appropriate national, state, or provincial environmental policy legislation' (Burdge and Vanclay 1995:32).

The Interorganizational Committee (1995) establishes that SIA must consider all kinds of social and cultural effects on human populations that any public or private actions could have. This includes changes affecting the norms, values, and beliefs of individuals and groups, over which the identity of them as individuals and collectivities is build up.

SIA is intended to provide accurate information to decision making processes. According to Burdge and Vanclay (in Vanclay and Bronstein 1995) this information could be related to: understanding, managing and controlling change; anticipate impacts; considerate mitigation measures; establish monitoring activities, and evaluate previous impacts to anticipate the possible cumulative effects. In this way, SIA complements EIA as the natural environment is different from the social one not only by its nature itself but for the way it responses to changes and stimuli. It is thus a complex and dynamic structure that deserves a whole analysis itself.

Even when most of the normative on the topic require the use of social science expertise, and even NEPA calls for an equal and balanced scientific approach to social and physical aspects (Freudenburg and Keating 1985); currently the inclusion of SIAs in the evaluation of impacts is extremely limited. Not in the sense that it is not being done, but because the evaluation of environmental impacts is mainly focused on physical impacts and usually are the same (hard) scientist who develop the social assessment.

SIA's objective is to evaluate the measurable change that a development project (any proposed project in fact) could have in population, communities, and social relationships. According to Freudenburg (1985) SIA mostly includes economic and technical considerations excluding all the other possible social impacts that could arise from the implementation of projects. As the cases show later, more than twenty years later the situation has not improved.

Are these two related?

Burdge (2002) affirms that there is no consensus about the relation between SIA and EIA and how they should be developed (jointly, individually?). In principle, this relation is a complementary one. In current times, the regulation of EIA is far more developed in comparison with SIA; and most of the normative bodies that

incorporate these tools regulate both under the EIA cap, including SIA as one of its components. This makes that for many there is not enough explanation to sustain the importance of SIA and thus they usually do not pay attention to the findings it provides.

This lack of proper exclusive regulation diminishes the strength of SIA. There is no standardized procedure to its implementation; and thus, its *scientific* nature tends to be questioned by the practitioners themselves. Even when it is regulated as the social component of EIA, it tends to be included just to fulfill formalities and this could have serious consequences.

Barrow (1997) sees EIA and SIA as opposite extremes of the assessment spectrum; he argues that a comprehensive assessment that includes economic, social and physical aspects is the desirable end, but not the reality. This does not mean that their aims are exclusive as it is not possible to separate EIA from SIA as their objects of study overlap in several aspects. There is no way to separate the social component from the environment, as this concept implies a closed inter-relation between all its components: biological, cultural, social and economical.

As it has been said before, both instruments look to provide decision-makers with accurate information. Both aims to bring findings that are useful to promote development; and here it is necessary to understand what development means. For this, SIA needs its own strategy. It is necessary to count with a procedure that involves the participation of the *beneficiaries* to determine how they anticipate and react to change (Du Pisani and Sandham 2006). With this, SIA will provide the information necessary to do it as it allows us to know the different perspectives of the people involved in any project; and not only the view of the planner or designer of it.

It is said that SIA has a *hybrid nature* as it involves scientific research and political policy and decision-making processes. How close the relation between environmental and social analysis is will depend on the context where the assessment takes place. In countries –or for agencies- with a multidisciplinary point of view they will be intrinsically linked. For those with narrow approaches the social component will still be considered as a secondary one; and in the process (of the assessment) SIA will find difficult to complete its objectives. While social impacts remain seen as less important in the EIA regulation, its inclusion will still be left to the good judgment of the EIA practitioners; the same practitioners that to the date, have not shown interest in incorporating it. (Du Pisani and Sandham 2006).

There is still a need to promote expertise in SIA practitioners. Since mostly there is no recognition of SIA as a formal requirement itself, the social component within EIAs is done by physical scientists. In this sense, as Du Pisani and Sandham pointed, to others like Vanclay and Burdge it is necessary more integration among EIA and SIA instead of separating them; so SIA repercussion on decision making processes is strengthened by the "increased awareness of social impacts among EIA practitioners, planners, proponents and the community" (Du Pisani and Sandham 2006: 710).

INDIGENOUS PEOPLE AND ENVIRONMENT: HOW DO DEVELOPMENT PROJECTS' IMPACTS INFLUENCE IN THIS RELATION?

Understanding the Human – Nature relation within the indigenous worldview

The indigenous worldview is based on the harmonic and holistic relation between all the elements of the "Mother Earth" to which the human being belongs but do not dominate. Development is not seen as a linear process; in fact there are not linear processes; everything seems to follow a circular course, like the natural cycles of the seasons for example. As Cherrington (2008) indicates, IP have a close relationship with their land; the activities they practice are mostly for subsistence (farming, fishery, hunting, etc) and they have been practicing them from millennia, gaining the knowledge and experience that have allowed them to survive through the time. But this closeness also means that changes in the natural environment will affect them more than any others and in greater proportions.

This perspective is present in almost every indigenous group, and can be explained following Harris and Wasilewski (2004) as based on four core principles; the four R's: Relationship, Responsibility, Reciprocity and Redistribution. These values explain how indigenous societies are articulated and how they see their relation with *the others* and with their environment. In this sense, *Relationship* explains the ties that link human beings to each other and to everything that is in the world in a kinship relation. We all are related and thus, all of us (human or not) deserve respect. *Responsibility* is the obligation to take care of the others and everything that surrounds the community. It is a duty born in the care that is implicit in the kinship relation previously referred. *Reciprocity* recalls the cyclical course of life, and the fact that whatever is done to one has effects in the others and vice versa. It is thus the base for building the sense of community. And finally, *Redistribution* understood as the mean to maintain the balance in the society.

If one considers these values, then it can be seen that development is not based on economical rationalities that aim for accumulation; instead the harmonic relation with the surroundings and the respectful use of the natural resources look to provide wellbeing for the community as a whole. IP around the world share these basic characteristics, and as a group they look for all the members of the community to have access at the same levels of wellbeing while protecting the source of it, which is the environment[6]. And this, applying the Political Ecology

[6] To us Mother Earth is not only a source of economic riches that give us the maize, which is our life, but she also provides so many other things that the privileged ones of today strive for. The Earth is the root and the source of our culture. She keeps our memories, she receives our ancestors and she, therefore, demands that we honor her and return to her, with tenderness and respect, those goods that she gives us. We have to take care of her so that our children and grandchildren may continue to benefit from her. If the world does not learn now to show respect to nature, what kind of future will the new generations

glasses needs to be considered to understand the IP decisions concerning the use of natural resources and how their relation with the other actors involved in it influences their social structure.

The traditional knowledge and all the millenarian practices of environmental management (including natural resources management) reflects the emphasis in the maintenance of the balance of the individual with the community, the surroundings and the world of the ancestors and spirits. This approach prioritizes the attention not to the treatment of symptoms but to the restoration of the natural balance. In this context the use of medicinal plants, the role of the midwives, healers and priests; and the shamanistic practices are integral parts of the indigenous worldview and are closely related to the management of natural resources.

But of course there are other positions in this respect. For example, according to Agrawal (1995), there should not be a differentiation between indigenous and western-scientific knowledge as both are connected and nourish each other in different ways. For him, this dichotomy can weaken the dialogue necessary to learn from each other. He talks about the necessity to preserve cultures and the traditional knowledge within them, but for him the previous distinction is just a label to identify different interests, but not to identify different cultures itself. IP play an important role as contributors and beneficiaries of the future efforts of *development*; they are endowed with a rich cultural patrimony; and have developed economic and social practices successfully adapted to the fragile ecosystems in which they live. Although it is important not to place indigenous and western knowledge as opposite within science, one can not deny that there are characteristics that make them different as they come from different societies, and that is exactly what EIA/SIA are practically ignoring.

The concern here is how development projects induce change over IP's environment and forces them to re-shape their traditional livelihoods. Development projects aim to *help* these populations, so they intentionally look to generate change; but what happen when the voices of IP are not heard? Then adaptation becomes a forced process instead of a natural evolution. The preservation of traditional knowledge and cultures does not mean at all that any change must be avoided as one of the basic characteristics of culture is its dynamic nature. IP then take part of dynamic trends to keep adapting themselves to the

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have? - Rigoberta Menchú Tum. Nobel Peace Prize 1992: Acceptance and Nobel Lecture, December 10, 1992.

Among IP there is a communitarian tradition regarding a communal form of collective property of the land, in the sense that ownership of the land is not centered on an individual but rather on the group and its community. Indigenous groups, by the fact of their very existence, have the right to live freely in their own territory; the close ties of indigenous people with the land must be recognized and understood as the fundamental basis of their cultures, their spiritual life, their integrity, and their economic survival. For indigenous communities, relations to the land are not merely a matter of possession and production but a material and spiritual element which they must fully enjoy, even to preserve their cultural legacy and transmit it to future generations. - Inter-American Court of Human Rights. Case of the Mayagna (Sumo) Awas Tingni Community v. Nicaragua. Judgment of August 31, 2001 – par.149.

changing environment. Development interventions of the kind included in this paper generate change; it can be positive or negative, and either way IP have to adapt to it. The problem here is not that change happens; it is that there are cases in which this change is imposed to IP so they are forced to adapt.

Even though the agency of IP is not going to be discussed here; it is important to point out that it is key in the definition of what kind of development is desired. Donor organizations and Governments have recognized the importance of indigenous cultures in relation to development as they typically belong to the poorest sectors and are among the most vulnerable groups. As such, it is also recognized that the mechanisms of design and implementation of projects must fortify the capacity of the indigenous groups to undertake and to execute development projects. It has been also recognized that the different ways in which indigenous people organize represent alternative structures of governance, in the sense that they imply discourses, practices and institutions different from the 'globalizing development' (Blaser et al 2004), and this does not mean at all that traditional knowledge is opposed to scientific knowledge (as in the globalized world). To say that is to minimize the first one's value and authority.

Instead then, the value of IP and their culture must be recognized as they can provide the basis to build sustainability through their TEK. And this relation is so close that the preservation of nature includes intrinsically the preservation of indigenous societies and practices. The words of Rappaport (1979:97) in this respect are an appropriate summary of the above said:

> Nature is seen by humans through a screen of beliefs, knowledge, and purposes, and it is in terms of their images of nature, rather than of the actual structure of nature, that they act.

Then, it is important to recognize the value of these beliefs as they shape peoples' behavior and have a huge influence in the construction of their identity. Some authors even generalize this statement, saying that in every culture beliefs form and explain the human-nature relationship (Salmon 2000:1331). When a culture disappears all the practices that it involved also disappears and in consequence the lives of the people related to it are severely changed (Taylor 2007).

Sometimes *developers* think they are doing the right thing helping people to overcome their constraints to achieve development; or in Taylor's words they were 'doing the victims of culture death a favour in breaking them out of the stagnant structures of their lives, and opening for them paths of freedom, equality, opportunity'. Cultures are dying everywhere in the name of development and it seems to be impossible to stop this overwhelming process. The good will of development institutions (and the self interest of some of them) contributes to accelerate this process.

The cases included in the next chapter are examples of how this relation is manifested and how it has been (or not) considered in the EIA/SIA. In the Inter-oceanic highway case, its construction looks to bring development to that part of the Amazonia by promoting the opening of new markets. It does not considers that most of the IP living there practice non-monetarized livelihoods, and that the environmental change will affects seriously them as they rely on the access to natural resources for their survival.

The impacts that the Chad-Cameroon pipeline has on the Bakola culture are originated in the displacement of the communities from their ancestral lands. I.e. they can not hunt where they used to, the creation of a national park also limits

their right to use the natural resources of the forest; and the compensation plan is based only in the value of property, ignoring that their culture does not recognize property as such, but it is imbibed in their relation and attachment to the natural surrounding.

The construction of dams as a solution to the energy crisis is one of the biggest threats that IP have to face. Hydroelectric power seems to be a good alternative to oil; that is why the number of dams has incremented around the world, some of them crossing rivers in indigenous lands forcing them to relocate their villages, destroying their sacred ancestral sites, and affecting their fishing and agricultural activities among other impacts as it happens in Laos. The argument behind this abuse is that there is a greater good behind this loss; and vulnerable communities can do little or nothing as their participation is neglected and thus their rights (to land in this case) are consciously overlooked, ignoring that culture is in many ways location-specific and that moving it out of its place results in the loss of the knowledge and practices linked to that place; and consequently also generates change in traditional social structures (Snyder in Jentoft et al 2003).

Is this relation reflected in environmental assessment instruments? Main gaps in existing instruments

In principle, environmental assessment instruments should involve cultural factors. As it has been said in the introductory chapter, the NEPA considered the social impacts evaluation as a fundamental part of any environmental evaluation since it was first launched. Also, the UN Permanent Forum on Indigenous Issues[7] has recommended that IP's traditional livelihoods and the TEK embedded in it must be considered as an important resource when designing and implementing development projects.

In this sense, development interventions must be holistic, taking into account not only the ecological factors that could be affected, but also social impacts, human rights, equity and environmental justice issues; in order to prevent what those most vulnerable have to face: the worst part of development and the necessity to keep adapting their life-style until it is completely gone.

This paper follows the same argument that Boyle (1998) presents when saying that environment is pretty much a cultural issue. Environment thus is not a *thing* that needs to be protected as it if is external to us the human beings. It is a socially constructed definition that involves humans as part of it, not above it. In other words, it is futile to think that human kind manages nature (Limburg et al 2002) as its complexity goes beyond human and scientific understanding and control.

That is why environmental issues call for a holistic treatment that goes beyond technical aspects and recognizes the politics it enmeshes and that make it a very complex topic. The definition of nature is culture-contextualized; the importance that cultural and sociopolitical factors have on decision making processes regarding environmental issues must not be lessened (Boyle 1998). This aspect however never counted with the same attention that was given to the economic and demographic factors within the social component.

[7] Report on the seventh session (21 April-2 May 2008)

EIA tend to have a narrow perspective that mainly focuses in technical factors and denies or ignores the cultural factors prevailing in any context where an intervention is going to have place. This is happening mostly because EIA was created to be applied in western, industrialized countries whose realities vary from those in developing countries; and thus the cultural and sociopolitical aspects need to be seriously considered when adapting the implementation of the instrument to them and not by just copying a fix model.

In this sense then, the original EIA defined in the NEPA, its models and prerogatives, acts as the base of all other environmental regulation around the world. This model sees the social aspects of the environment mostly related to socioeconomics; it focuses in indicators that can be easily measured like demography and income levels. The cultural aspects in the other hand, involve almost specifically archeological sites or historic properties according to the definition of the National Historic Preservation Act. Even though the NEPA refers to cultural aspects in a way that seem to be holistic, and integrating all the aspects that reflect the interaction between human and environment the fact that these cultural aspects are not easily measured have resulted in instruments avoiding them.

Something similar happens with SIA. This assessment also tends to focus on aspects that can be measured in economic terms. Putting a value over cultural aspects is thus a difficulty that is preferred to avoid. This situation can be compared with the valuation of environmental issues in general. There is literature specialized in the topic that can be helpful to analyze this problem and to find some responses that could be adapted to cultural issues, but going further in this escapes the objective of this paper. This does not mean that it is impossible to measure the value of cultural aspects; nevertheless the (in)adequacy of economic instruments to measure cultural issues represent a major difficulty to do it.

One can divide the gaps in two main categories, namely *gaps in design* and *gaps in implementation*. From the perspective of this paper, it is needed to strengthen the existing instruments in order to fill these gaps. EIA and SIA social components need to be improved so cultural issues can be fully incorporated; it is also needed to find out implementation procedures that involve these aspects giving them the same relevance that other aspects (economic, political, etc) are currently given.

As it has been said before, EIA and SIA represent the western paradigm of development in the sense that they were created to evaluate and support the design and implementation of projects whose aim is to *improve* the life of the *beneficiaries*. There even are authors like Groenfeldt (2003) that go further and define development as the new way in which the West is looking to achieve cultural domination. As it was indicated in the Limitations section of this paper, this debate and the position of its author about it will not be discussed in order to keep focus on the impacts that *this development* actually has.

What is important here is to point out that the referred western paradigm presents a poor conception of what culture is; keeping it as a kind of sub-category within social aspects. This reduces importance to the extent in which cultural factors influence development initiatives and is even considered as a constrain to development, ignoring once again that in Van Til's words "without culture a man can not be human" (as quoted in Moore 1974: 544).

What should be included? Different aspects of the indigenous worldview

Culture is the product of the physical environment in which a certain population lives. Since human beings first populated the earth, they have been adapting their livelihoods to the surrounding environment; and in a reciprocal attitude, the environment have also been adapting to their presence.

Traditional cultures still alive keep a closer relation to their environment given that they rely mainly on subsistence activities and thus depend on the availability of natural resources, and their knowledge is constructed based on this relation. The environmental change induced by development project forces these peoples to adapt to new environments. It is true that adaptation will have happened anyway, but the pace at which external interventions generate changes is faster than those changes generated as part of natural processes (even including natural disasters). And what should never be forgotten is that these changes are intentional; planned; and -most of the time- imposed to indigenous communities.

According to Kirsch (2001), the loss of culture can take place at two spheres. The first one is the loss of possession and it includes the loss of the natural resources on which practices and customs depend. This loss can be somehow measured in monetary terms as it implies a certain degree of property rights and so compensation can take place to restore the damage (at least in theory) . But it is important to keep in mind that economic valuation is always a problematic matter when environment-related issues are involved.

The second sphere is related to the loss of kinship or belonging. This kind of bonds or relations is more related to the very identity of people, and the sense of place that communities have with their lands or resources and thus are inalienable. These are the cultural aspects most difficult to analyze; there are things invaluable for IP that western societies may not find economically valuable and thus consider them as unworthy to preserve or protect (Snyder in Jentoft et al 2003).

Culture as a set of practices belonging to a given person or group, is attached to a place. Any change affecting that place will in consequence also impact in culture. The way in which practices take place, communities organize and identities are constructed are location-specific and so alterations to the surroundings have an effect on them; that is way is important to understand and recognize that the modern/western interpretation of the relationship with the environment is not unique and as it is based on also western legal and economic parameters differs from that of the IP living mostly under traditional subsistence cultures (Kirsch 2001).

The implementation of development projects could have significant impacts on the environment and on culture as a consequence. The evaluation and adoption of measures to reduce and –when possible- avoid those impacts must then include an assessment of the effects on the cultural heritage as it is already recognized by the environmental normative framework. But the inclusion of the term *cultural heritage* has not always been appropriate as it was solely used to make a reference to historical/archeological sites. It is only in recent years that the definition has been

enriched in such a way that it includes new categories such as the intangible, ethnographic or industrial heritage[8].

In this line, it is important to recall the definition of intangible cultural heritage given by the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage[9] as it recognized that it is compounded by all the practices, representations, expressions, knowledge and skills of individuals or groups within a community that link them to their past. And this heritage is important as it supports the understanding of long term social and environmental change and thus it is basic to ensure sustainability of the initiatives that could take place among traditional societies.

The dynamic nature of culture makes it non- renewable in the sense that once change has occurred it is not possible to restore it. Once practices and knowledge are lost, they are gone forever. That is why it is important to preserve culture as it represents a valuable source of knowledge and is fundamental for the formation of people's sense of place and identity.

Also, and especially for development projects with components of natural resources management, and recovery/protection of degraded areas; it is necessary to incorporate in any preliminary diagnosis an analysis of the cultural use of the lands. This is important due to the close relation that all the economic, cultural and spiritual activities have with the territories in which they take place. An analysis of this kind will allow knowing the categories of use of the different ecosystems, and so it will bring useful information when looking for consensus between the indigenous communities and the project promoters regarding the rights and responsibilities of the actors involved. Therefore, it is necessary that impact assessments take place since the early phases of project planning and design in such a way that IP concerns are included, and the assessment does not only go on physical aspects.

Development and traditional cultures preservation are thus not exclusive concepts; but finding new ways and improving existing procedures and tools that respect local cultures is needed[10]. In this sense a checklist of what is considered as

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[8] Convention for the Safeguarding of the Intangible Cultural Heritage. 32nd session UNESCO (October 17th, 2003)

[9] Article 2 – Definitions: For the purposes of this Convention,

1. The "intangible cultural heritage" means the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artifacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. For the purposes of this Convention, consideration will be given solely to such intangible cultural heritage as is compatible with existing international human rights instruments, as well as with the requirements of mutual respect among communities, groups and individuals, and of sustainable development…

[10] Or as Reyes-García et al (2007: 376) said: Economic development and preservation of local ecological knowledge might be simultaneously achieved only if economic development takes place through activities that keep people in their habitat and their

the main aspects that should be included to reduce this gap is presented at the end of this paper as mode of conclusions.

culture. The challenge lays in finding and promoting local forms of economic development that do not undermine local ecological knowledge.

LANDING ON REALITY: THREE CASES OF "HARMING" DEVELOPMENT

The Inter-oceanic highway and the Peruvian Amazonia

The Trans-oceanic or Inter-oceanic highway is one of the most important projects included in the South American Regional Infrastructure Initiative (IIRSA for its Spanish acronym).

This 2603km highway will connect the Amazonian state of Acre, Brazil with the southern coast of Peru (Ilo, Matarani and San Juan de Marcona). The aim of IIRSA and the inter-oceanic highway is to bring development to both countries, mostly to the people living in those areas that were previously isolated or where the access to markets were constrained due to the precarious infrastructure in place.

Its design foresees to expand access for Peruvian products in Brazilian markets, resulting in an annual increase of 1.5 percent of Gross Domestic Product. Also it will open the Asian markets to Brazilian goods trough the Pacific coast and of Asian products to US, European and Brazilian markets on the Atlantic coast.

Infrastructure development implies the greatest challenges to environmental sustainability and social justice today because of all the threats and actual impacts it could generate. IIRSA contemplates a package of mega-projects that would result in massive alterations of landscapes and livelihoods in the region, though it is suppose to bring benefits to all the people. Its construction will not only generate direct negative impacts on biodiversity; it will seriously affect the small scale farming activities and the agricultural labour sector in the region.

The construction of this kind of infrastructure has always led to the displacement of rural and indigenous population, generate massive migration, and increase deforestation. The environmental, social, cultural, and economic impacts of these projects will be significant, and in many cases, irreversible. In the Peruvian side, the highway goes trough several indigenous territories and natural parks within areas of tremendous socio-cultural and ecological diversity. There even are some tribes of indigenous people in voluntary isolation that are the most vulnerable to these impacts.

Due to different interests behind this project, several *ad hoc* regulations were created to allow it to skip some requirements for its approval (Dourojani 2006; Balvín and Patrón 2008). So the project started without a Feasibility Study and with no EIA. Later on, when the project was already in its construction phase the EIA for Blocks 2, 3 and 4 were approved by the environmental authority (General Direction of Socio-Environmental Affairs); Blocks 1 and 5 are still under revision.

This case study will mainly focus in the Block 3: Puente Inambari – Iñapari as it belongs to the Amazonian area where the most vulnerable IP is located (Madre de Dios). The Socio-economic and cultural Base Line for the Block 3 reconigzes that 'within the area of influence of the Inter-oceanic highway (block 3), there are

thirteen native communities identified, representing more that the half of the total recognized in Madre de Dios'[11].

Even with all the irregularities involved in the design and approval of the project it can be said that now it accomplishes with all the formalities required for a project of that kind… at least on papers it does. But the fact that the EIA was approved after the beginning of the construction causes that the preventive character of the instrument is weakened. Even though one could expect that as the intention was to fulfill the law requirements and in this way to correct and improve the project, it would count with a proper EIA; but this was not the case. At least no regarding cultural issues[12].

According to the project, the baseline's objective is to 'provide relevant information related to the most important socio-economic variables present in the project's influence area; and regarding the political, social and cultural processes developing within it' and 'identifying the influence that the project could have in the evolution of those variables and processes'[13]. Cultural issues are of huge importance as Blocks 2, 3 and 4 go through eight different biodiversity zones where native Amazonian communities live; including Amarakaeri, Ese´ejja, Shipibo-conibo and Amahuaca, among others (Balvín and Patrón: 2008). Nevertheless the influence area defined in the project did not consider the indirect impacts that it could generate in a larger area. In fact, in the identification and evaluation of possible impacts, the EIA just presents a list without deeper argumentation[14].

The EISA recognizes that 'among native leaders, population and community chiefs of the influence area, the environmental issues related with the project are seen as the main concern... due to previous experiences that have promoted the use of agricultural lands and forestry without considering the restitution and sustainability of the natural resources'[15] on which they depend to live. There is no mention related to the measures to be taken in order to avoid this from happening again.

The EIA continuously ignores IP in its assessment. Not only it does not included their involvement in its (precarious) consultation process, and -as it will be shown later- in the decision making process at all; what is worst is that after recognizing the presence of IP in the description of the influence area, the identification of impacts section for the construction phase at least, ignores completely the communities located in the Madre de Dios region (the most preserved part of the Peruvian forest).

The identification of negative impacts is restricted mostly to physical impacts; in relation to the social impacts on IP it only limits to indicate that 'the impact will

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[11] Estudio de Impacto Socio-ambiental – EISA (2007), Proyecto 'Corredor Vial Interoceánico Sur, Perú-Brasil', Tramo 3 (p. RE19)

[12] Law No. 27446 on the National System of Environmental Impact Evaluation includes the protection of community traditional systems and ways of life as one of the criteria to be considered when evaluating projects. Nevertheless, it does not include any explicit reference to it when establishing the contents of EIA.

[13] Idem

[14] See: EISA Chapter 6.0: Identificación y Evaluación de Impactos Socio-ambientales

[15] EISA (p. RE22)

have a different connotation for indigenous communities as these are populations with an autonomous inner structure in the political sense, and a millenary tradition in the socio-cultural aspect'[16].

And this is only for the construction phase; the operation phase go further in the denial of impacts as it established that as in one part there was already a road and that it will only be improved with the project, it will not generate any direct impact, negative or positive[17].

But there are different points of view in this respect. Several experts working with environmental and indigenous organizations have raised their voice in order to show the real impacts of the project. In this sense, the former IDB advisor in environmental issues Marc Dourojani (2006) identified these as some of the impacts that this project would have in relation with socio-cultural factors:

- Invasion of indigenous lands by farmers, timber merchants, and miners, and eventual killing of indigenous population by disease or in scrimmages.
- Displacement of indigenous populations, invasions of other indigenous territories, and inter-group conflicts.
- Land speculation and illegal land expropriations.
- Proliferation of illegal crops.
- Trafficking of drugs, arms, wild animals and other general smuggling.
- Increase in migration to urban areas, degradation of social and environmental services in cities and local villages.
- Spread of shantytowns.
- Fostering of underemployment
- Increase in female and child prostitution.
- Loss of traditional cultural values.

In contrast to all the above said, the EIA is rich in describing the positive impacts that the highway will produce including the opening of new markets, the diminution of the costs of the family shopping basket, the promotion of the tourist activity, the improvement of the productive activities, etc. Again, the impacts that these could generate on IP's way of life are not considered; this is specially alarming considering the not-contacted native population (or with little contact) as it could promote the increase of social conflicts by the use and/or possession of land, the use water, the forest management, etc. (Balvín and Patrón: 2008).

According to the EIA, among the benefits that the highway will bring, the most celebrated one is the expansion of agriculture activities in the zone. Beside the negative environmental impacts related to deforestation and the loss of biodiversity, this proposal does not consider the social dimension that the introduction of new livelihoods could produce. It also ignores that other alternatives can be designed based on the ETK of the communities which have been managing the forest

[16] Idem (p. 6-58)
[17] Idem

ancestrally in a sustainable way as they live under self-sufficient systems of production.

This last issue certainly worth the greatest attention as it lays in the core of the problem. The fact that development projects are built without consideration of the actual livelihood of the supposed beneficiaries makes that the conclusions reached are not always correct. In this case the project identified that the population within the influence area needs to develop to stop being *poor*; but whose definition of poverty counts? For this peoples poverty is not measured in monetary terms as they livelihood is based on barter economies. According to Torres (2005), the knowledge of their surroundings allows these communities to relay on the forest products and other small scale activities to ensure their food security; that is why they do not need to be engaged in market economies; and thus their definition of poverty is different. For her, there is a link between biodiversity, culture and barter; and it needs to be considered in the definition of poverty and thus, that of development.

In sum, the EIA prepared for this project fulfill the formal requirements to its implementation but the cultural aspects were poorly included in despite of the claims made by specialist and the population itself; in fact, the social impacts part does not mention IP almost at all. The options presented in the project do not fit the reality of the IP living in the influence area, nor the influence area itself is properly defined; and this put Blocks 3 in a high risk to be irreversible affected by both, environmental and social impacts.

The Chad-Cameroon Pipeline

This US$3.7 billion mega project is developed by the World Bank Group together with three of the world's largest oil companies (EXXON, Shell, ELF). It considers the drilling of 300 oil wells in the Doba oil fields of southern Chad; the construction of a 650-mile pipeline from Doba through Cameroon to the Atlantic; and to build a marine pipeline at Kribi to a floating storage offloading vessel. The project expects the production of 225,000 barrels of oil per day with total revenue of US$12 billion.

The project has an approved Environmental Impact Assessment and Environmental Management Plan that includes resettlement and compensation plans; and also an Indigenous Peoples Plan - IPP (only for Cameroon). All these documents were elaborated by the Consortium together with the Governments of the Republic of Chad and the Republic of Cameroon and approved by the World Bank Board of Directors on June 6, 2000.[18]

Both governments are at the top of the corruption list. The lack of governance adequacy that this generates, disqualify them to properly manage the promised benefits of the project in order to achieve positive impacts and *development*. This is one of the main causes of the negative impact of the project. In this case, even though the aim of the project is to generate income to reduce poverty and achieve development (by using its revenues in poverty reduction

[18] http://www.ifc.org/ifcext/spiwebsite1.nsf/2bc34f011b50ff6e85256a550073ff1c (accessed on September 2008)

programs in health, education and rural development[19]); the wrong assumptions behind the design and implementation of the project led to cause a major detriment on the communities nearby.

The IPP identifies that 'twenty-three Bakola Pygmy settlements of the minority Bakola (Bagyeli) ethnic group are located 2 km or less from the Cameroon Transportation System's easement. In addition, there are 20 settlements more whose primary access or egress is the Kribi-Bipindi-Lolodorf- Akongo road. An estimated 1,000 Bakola Pygmies live in these 43 settlements'[20]. The Bakola are one of the principal minority groups in the forests of Central Africa; they are semi-nomads, and their livelihood depends on the resources they get from the forest and hunting –thought it is decreasing with the time due to the scarcity of game. Agriculture has been recently introduced to them.

The project information affirms that there has been a continuous consultation process with the Bakola since 1997[21]. In formal terms it is true, but the national context impeded a proper process as the dictatorial Government took part of it and the meetings took place under armed force control.

The IPP was created to incorporate the participation of the Bakola in decision-making processes to the extent that the programs and projects to be funded by the Environmental Foundation (which manages the funds directed to IP's issues) would be designed by them with the aid of a facilitator. Later it was proved that the approved fund did not consider the Bakola's proposals. In this sense the Association Tchadienne pour la Promotion et la Defense des Droits de l'Homme found that the IPP did not comply with the Bank requirements related to participation.[22]

In the project's chapter about compensation, it is mentioned that in order to avoid impacts to IP's livelihoods, the resettlement process should be modeled based on the 'existing cultural resettlement practices already common among ethnic groups in the project area'; and that the compensation for land will also reach customary users, recognizing the value of the cultural issues. It does not mention how the valorization is to be done.[23]

Bakola pygmy populations are threatened by the construction of the pipeline. The IPP does not address the problems that thousand of IP are already suffering; including the recognition of legal land rights and the inclusion of mechanisms for community participation in the decision making process. Instead, it

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[19] http://www.essochad.com/Chad-English/PA/TD_HomePage.asp (accessed on September 2008)

[20] Chad-Cameroon Petroleum Development and Pipeline Project (1999) *Indigenous Peoples Plan,* Environmental Management Plan Vol. 4, Part III

[21] Idem

[22] 'In its application to fund the project through a foundation yet to be established, the plan does identify mechanisms for involving communities, but no acceptable means have been put in place to ensure the indigenous peoples' participation in the full project cycle.... In addition, the plan does not analyze the precarious legal situation of the Bakola people, who suffer intense discrimination and are often treated as subhuman'. (ATPDDH 1999)

[23] Environmental Assessment Executive Summary. Chapter 7, Pg. 19

says to be mainly focused in improving the social conditions of the Bakola living in the area in relation with agricultural, health and educational issues[24].

According to Breitkopf (2000) the main problems that the project is generating (and/or will generate) and that are not considered in its EIA include the pipeline passing through indigenous Bakola territories (including rivers and rainforest); the threat to the fishery and tourism activities in the coastal zone which they depend on; the increase of water scarcity; the loss of farming and cattle lands; the increase of ethnic conflicts in the region; and the increase of Sexually Transmitted Diseases, including AIDS.

The impacts also include the loss of Bakola access to their forest and the subsequent denial of indigenous hunting and gathering rights due to the creation of the mitigatory protected area in southern Cameroon as part of the project; in some places they have been also prohibited to fish in the river. Conflicts with workers (mostly outsiders); forest degradation and increased bushmeat hunting; and conflicts with the sedentary rural population present in the area -the Bantus, to whom they are ancestrally related- due to competition for land and/or compensation are also among the main impacts they suffer.

These alterations lead to the break up of indigenous social and cultural community structure; an issue that is not considered in any of the official documents of the project. The Indigenous Peoples Plan thus, although was part of

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[24] These are the programs included in the IPP:

Health-related issues:

- Tuberculosis control for Bakola Pygmies and Bantus.
- Surveillance and application of child vaccinations (extended vaccination program).
- Surveillance and control of endemic and epidemic diseases (cholera, yaws, tuberculosis, STD, and skin diseases).
- Assistance in equipment and supplies of local health centers available to both Bakola Pygmies and Bantus.
- Supply of clean water.

Community capacity building through schooling and education:

- Literacy classes for the adult population using itinerant teachers that visit the Bakola Pygmies in their settlements.
- Counseling on hygiene in and around the house.

Agriculture and agro-forestry:

- Improvement in traditional food crop agriculture through extending the cultivated area and improvement of techniques.
- Use of improved seeds for better yields.
- Implementation of agro-forestry systems to improve the use of traditionally available plants.

Census of Bakola Pygmy settlements and population:

- Census of the Bakola population, help with obtaining of identity Pygmy papers and development of a system of birth registration and birth certificates that are important for vaccination and public health campaigns.

Income generating activities:

- Bakola Pygmies are famous for their dancing. Traditional dance groups could benefit from the development of the tourist industry and help Bakola Pygmies earn an income. Handicrafts could also be developed, as well as the commercialization of some forest products.

the requirements of the WB to approve the project, is poorly done as it does not even respect the prerogatives of the Bank itself established in its Policy on Indigenous Peoples (OP 4.20) related to the informed participation of IP in issues that could affect them; neither it establishes a mechanism to the recognition of IP rights.

The main mention of IP culture is limited to establishing the need to develop specific consultation techniques in order to explain the project to the Bakola; including its consequences on *their way of life*[25]. With this, it implicitly recognized that their livelihoods will be affected; and this is corroborated when they follow that statement by also recognizing that during the excavations it is expected come across (discover) Bakola's socio-cultural and archaeological sites.

In 2000 the Bank was requested to call for the intervention of the Inspection Panel in order to respond to the claims of people affected by the pipeline project26. Of course its response was denying every claim; but what one can find shocking is the fact that the Bank even deny that its Policy on IP is applicable to Bakolas by saying that they share with the non-indigenous Bantu the same sedentary agricultural economy and as such can not be considered indigenous.

As it can now be seen, the IPP inclusion of cultural issues is inadequate. It does not consider the Bakola's culture and their knowledge of the forest, its biodiversity; its natural medicines and their traditional practices. And as it was designed without involving the Bakola, it does not reflect their interest and concerns. The project also counts with a Management Plan for Cultural Properties, but it is only referred to archeological, historical and paleontological sites. Once again the term cultural is understood in a very restrictive way.

IPP's implementation has shown that it was designed over the capacities and interests of the funding institutions following a westernized point of view. This led to the funding of projects far from the Bakolas reality. Also, in despite of the fact that the IPP do recognize that these people depend on forest products, it does not propose any kind of measure to prevent and stop deforestation in the area; and up to these days the mitigation measures taking place are weak and do not respond to the damage extension.

Nam Theun 2: A dam in Laos

Nam Theun 2 is a Hydroelectric Project located on the Nakai Plateau, in Khammouane province. Its proponents present it as a *multi-purpose development project* which main objective is to conserve the environment and alleviate poverty in Laos PDR[27]. Currently it is the largest and most controversial hydroelectric project in this country as it includes the construction of a 48 metre-high dam on the Nam Theun

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[25] Chad-Cameroon Petroleum Development and Pipeline Project (1999) *Indigenous Peoples Plan,* Environmental Management Plan Vol. 4, Part III

[26] Claim by persons adversely affected by oil field development in the Doba Basin who reside in the cantons of Miandoun, Kome, Mbikou, Bebedjia, and Beboni (Sub-prefecture of Bebedjia) for the attention of the Inspection Panel of the World Bank. Bébédjia, December 15, 2000

[27] Environmental Assessment and Management Plan (2005)

River and the release of the water into the Xe Bang Fai River; both tributaries of the Mekong River.

To build up the reservoir it is needed to flood an area of 450 km2; and it is calculated that the impacts it will produce will affect adversely approximately 500km2 more of the Nakai Plateau. This will affect directly not only endangered fauna, but human population settled in the area; as it implies resettling 6,200 indigenous people. Plus, the alteration on the rivers flow will strongly affect the livelihoods of those people whose survival depends on the activities they develop on the Xe Bang Fai River.

The rationale behind the project is that the revenues from energy generation are key to accomplish development (that is economic growth and poverty reduction)[28]. Then, the idea is to reduce poverty by turning Laos into a kind of power supplier for the region; which means that the energy generated by this project will not beneficiate the population located in the surrounded areas and who are suffering the impacts it generates. The project is soon going to start operating, and by this time it does not have in place an adequate relocation plan for those more than 6,200 villagers.

The Asian Development Bank and the World Bank classified Nam Theun 2 (NT2) as a 'Category A' project; which means that it requires comprehensive environmental and social impact assessments. The current analysis includes the project's approved Social and Environmental Management Framework and Operational Plan (SEMFOP) and the Ethnic Minorities Development Plan within it; the Social Development Plan (SDP) and the Environmental Assessment and Management Plan (EAMP); emphasising in the chapters related to social and cultural issues.

The amount of information generated in these documents is impressive. But even after having done a very complete description of the IP affected by the project, and an exhaustive diagnosis of the way in which this affectation could happen; it does not accomplish the objective of the instrument. The objective of the EIA/SIA is not only to describe a given situation; after identify the possible impacts that a project may have, it has to present alternatives to avoid or mitigate them. In this case, the inclusion of social and cultural issues ends up being a nominal one as they are not reflected in the implantation of the mentioned plans.

The affected area involves a very significant cultural diversity, including several vulnerable indigenous ethnic groups. The most vulnerable indigenous group (called ethnic minorities in Laos) is the Vietic. It is composed by small groups whose livelihoods vary from nomadic to rice cultivation. Their vulnerability has been constantly challenged in the last twenty years due to governmental initiatives to turn them into agricultural societies; and the change induced by the project will be greater and faster than these. In this sense International Rivers -an NGO that has been following the case since it was first proposed- declared after visiting the project area and reviewing the official documents that 'imposing these changes on rural communities over a short period of time can especially overwhelm the capac-

[28] Idem

ity of poor households to manage the transition' (2008:18), and actually that is exactly what is happening.

The Ethnic Minorities Development Plan recognizes that the Vietic are differentiated from other groups for their knowledge and capacity to manage their forest. They even states that 'many rely on the forest for much of their food and therefore have a wealth of knowledge about this environment'[29] and that thus it is important to take advantage of it to achieve development in a sustainable way through the inclusion of their *irreplaceable* EK in the project. Later it points out that 'both livelihood systems and ethnicity play a role in the daily lives, social organization, culture, relationship to the forest etc. and as such will be taken into account during SEMFOP implementation'[30]; but there are no documents that show that this has been applied during the almost finished construction phase.

The EMDP recognizes that there is a chance that cultural beliefs and practices will not be taken seriously in the project; and that this could lead to threatening the social structure of the Vietic societies. But this stay as a declarative statement as there are not alternatives proposed to face this risk. The project also established that there will not be relocation of the villages and that any change would happen gradually to allow adaptation. This was not the case. In fact the Environmental and Social Impact Assessment determines that –beside the relocation of population- one of the impacts on physical and cultural resources will be that for the construction of the reservoir it is needed to overflow an area where sacred places and cemeteries are located; other impacts include the disturbance of religious sites; damage to religious and sacred structures and historic sites. As these resources conform the cultural patrimony of the Vietic, the project finds that something has to be done… and apparently the solution is to celebrate 'appropriate spiritual ceremonies prior to any impact' and that 'the net benefits of the Project justify the impacts and their corresponding economic value'[31]

The Resource Access Restriction Framework included in the assessment[32] also recognizes that affected IP depend on the forest resources, and that Vietic groups are also reliant on fishing and gathering of non timber forest products (NTFP) not only for food security but also because of the spiritual role that they have on their lives. But as all the previously mentioned, it is just a declaration as nothing was proposed to incorporate this value in the decision making process.

People living downstream will be the most affected mostly because of the loss of fisheries and other livelihood resources like breeding other aquatic animals, planting wetlands, wild plants, riverbank gardens, floodplain agriculture, etc., all of

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[29] Nam Theun 2 Watershed Management and Protection Authority (2005) 'Social and Environment Management Framework and Operational Plan (SEMFOP)' Part 3: Ethnic Minorities Development Plan

[30] Idem

[31] Nam Theun 2 Watershed Management and Protection Authority (2004) 'Summary Environmental and Social Impact Assessment Proposed Nam Theun 2 Hydroelectric Project in the Lao Peoples' Democratic Republic'

[32] Nam Theun 2 Watershed Management and Protection Authority (2005) 'Social and Environment Management Framework and Operational Plan (SEMFOP)' Part 5: Resource Access Restriction Framework

them fundamental activities for their food and livelihood security; without mentioning the degradation of their lands due to excessive flooding that will have severe impacts on the productivity of the rainy season rice crop of thousands of families living in the middle and lower Xe Bang Fai basin and to the other extreme, the fact that thousands of families would not receive dry-season irrigation while the reservoir is close.

An International Environmental and Social Panel of Experts for the Nam Theun 2 project was created to evaluate the impacts of the project. One of its reports establishes that:

> …one of the Nam Theun 2 project's most serious impacts on livelihood can be expected in the densely populated (over 50,000 people) Xe Bang Fai basin where greatly increased river flows from the powerhouse can be expected to alter fish behavior, fishing technology, and access to river bank gardens.33

But this estimate falls short as it only considered people living in the vicinity of the Xe Bang Fai River to be dependent on the river. If all the people depending on the tributaries also affected is taken into account the picture change to an estimated of 120,000 to 130,000 people[34].

This is mostly related to the fact that there is a big risk regarding the impact of resettlement programs on IP; as the alternative activities proposed by the project have not taken into account the cultural issues intrinsic in their livelihoods. In this sense, the program includes reservoir fisheries, agricultural, timber production, and access to market for fish, vegetables, and agricultural and timber products; all activities strange to them. The role of traditional buffalo husbandry and how it will be affected by the reduction of land is not addressed, neither is the importance of EK in determining the social status among communities.

In the Nam Theun 2 Technical Reviews Commissioned by International Rivers Network and Environmental Defense (2005) it is founded that there are a lot of assumptions on the side of the project managers regarding to the impact on IP culture. This has been confirmed all along the review of the official documents made for this analysis; being the most evident the one related to the change of livelihood systems. That is the belief that adaptation in such aggressive circumstances is possible when the evidence has shown that it has a "major and generally negative impact on the social systems, livelihoods and cultures of many communities" (International Rivers: 2008).

Colophon

The main reason behind this reality is that these initiatives do not take into account the worldview of their *beneficiaries* and impose their own perspectives of development. According to Snyder (in Jentoft et al 2003) both economical and

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33 Thayer Scudder, Lee M. Talbot, and T.C. Whitmore (2001) "Fifth Report of the International Environmental and Social Panel of Experts" p.30

34 Bruce Shoemaker, Ian G. Baird, and Ms Monsiri Baird (2001) "The People and Their River: A Survey of River-Based Livelihoods in the Xe Bang Fai River Basin in Central Lao PDR"

anthropological research have shown that the way in which environmental issues are treated responds exclusively to western concepts and institutions in relation to the legal, political and economic institutions that surround them. In this line then, one can say that any intervention prescribed from outside will only be helpful and work if it can support a necessity identified and a solution embraced by the community itself; considering their needs, aspirations, fears and feelings, and their socio-economic and cultural unique characteristics. But development (at least from a western point of view) seeks a unified world, in economic, political and in communication terms; and this will imply an extremely high human cost in terms of culture extinction.

CONCLUSIONS

The preservation of traditional livelihoods is not a constraint to development. It has to be understood taking into account the local worldviews of the *beneficiaries*; in this case indigenous people. If this is done, then it is not necessary to sacrifice cultures to achieve development.

The analysis of the three cases has shown that EIA and SIA have deficiencies regarding the inclusion of cultural issues in its design and implementation. The different aspects of culture that shape the relation human-nature are not given the same attention that other social aspects receive.

TEK is based on cultural patterns and define the fact that indigenous livelihoods are mostly of self-reliance, and this have a tremendous importance when defining who is poor, who needs to develop and how. Ignoring this has led *developers* to think that the only system available is capitalism and that everything is related to money, and so development is.

This does not mean that in order to preserve indigenous livelihood they have to be isolated from the modernization process; the point here is that the imposition of development not considering local values accelerates the pace in which social change is generated and harms these livelihoods by impeding them to adapt progressively as it should and has always been. And this is related to the right that everybody should have to choose and determine their own future. The dynamic nature of culture is not being denied; change is natural and desirable but only when based on self-determination or natural processes.

At the core of this paper it is found that the development of indigenous populations is only possible if the definition of poverty and development itself is constructed under their own worldviews. In this sense, it is necessary to recognize that different worldviews lead to different definitions of poverty and development, and that what is seen as such from an occidental point of view may not coincide with indigenous definitions; and for this paper specifically, the way in which IP construct their relation with the environment is an imperative part to be considered.

For this it is necessary that EIA and SIA guarantee spaces and procedures that ensure their real participation, and improves the decision-making skills and power ad thus the empowerment of the population affected by a given project. This participation has to be included in all the project phases, from design to implementation and monitoring having in mind all the time that the techniques and procedures applied also come from occidental societies and can have an impact themselves.

One of the conclusions of this paper is the imperative necessity of enforcing the existing environmental management instruments for impact evaluation; that is EIA and SIA. It has been noticed that most of the attention has been paid to EIA and the assessment of physical impacts within it, while SIA and even social science approaches has been left aside.

EIA is a preventive instrument as it has to be developed before taking a decision about the viability of a project; but even though its definition is not contested and most of the countries embracing it within their legislation follow more or less the same pattern; it must be taken into account that there is not only one fixed model of EIA. It varies based on the income level of a given country (in

regulation and practice). That is why it is very dangerous to *copy* good experiences that took place in developed countries to other different contexts.

Having this in mind is important when defining the weights and values for evaluation of projects; Lee (1983) accurately indicates that they should not only be defined from the experts' points of view; instead in contexts that encompass different value systems these should include community views trough participatory processes. In fact, these different values must be considered to evaluate the understanding of the implications of any decision to be taken.

SIA's evolution has been slower in comparison to EIA. While the latter is considered as the impact assessment tool for excellence, the former is still seen as a component of EIA only. To Du Pisani and Sandham (2006), this "has led to the misconception that consideration of social effects is only necessary if these result from environmental impacts". The reasons behind this mainly lay in the lack of standardized procedures regarding SIA and the fact that mostly there is no specific regulation of it within the normative bodies at national level. This limits the institutionalization of the SIA as an instrument of equal value for impact evaluation and decision-making and thus promote that development organizations, Governments, lenders and whoever wants to implement a development project do not include SIA.

SIA needs to be a multi-disciplinary and comprehensive instrument that brings information in advance of the decision, following a standardized procedure whose outcomes are reliable and can be use as reference to further assessments. In this sense, community involvement is a must when doing SIA, not only as *consultation* but as real participation during all the phases of development projects; from planning to post-impacts monitoring. But while public participation is mandatory for EIAs, it is not regulated for SIAs; it is thus necessary to build a legal framework that incorporate and support participation in SIA processes.

Another inference that arose from this research is that cultural differences make that projects dealing with IP find more difficult to accomplish with incorporating cultural issues. Most of the time development is conceived ignoring those differences, it is thus necessary to systematize the inclusion of the demands, aspirations, needs and practices of IP in order to find a way to include them in a holistic way; so institutions and Governments are able to define development in context and avoid the temptation to apply fix formulas that could have worked somewhere else but are not always applicable to IP.

One more important issue found in this paper is the necessity of applying multi-disciplinary approaches in the assessment of environmental impacts. There has always been a tendency to examine ecological systems separated from social systems; but recently it is becoming more obvious that this is impossible and thus, that an interdisciplinary approach is needed to fully understand the implications of altering these systems (Berkes and Folke 1998).

As it has been shown, social and cultural issues are as important as physical issues when evaluating the impacts that a project may generate. Their analysis has to be necessary done involving specialized social scientist and not only leave it to specialist in hard sciences whose approach is more technical and mostly do not consider that cultural issues has a real scientific value as they are related to beliefs and spirituality and thus sometimes the scientific method can not be applied to them.

Related to the previous is the problem of valuation. How to monetarize or put economic value to the environment is a problem still unsolved; and the valuation of cultural issues is equally problematic, mostly considering the link between culture and environment matter of this paper. How much does a tree cost? Only the value of wood in the market? And the environmental services it provides? And its scenic/recreational value? And its spiritual value as a god or guardian of the community? Environmental and cultural issues are not easy to be measured in monetary terms and thus the evaluation of impacts tends to focus on those things that are. It is necessary to include non monetary valuation in the assessment of impacts in order to achieve a holistic appreciation of the real affectation of the environment and its consequent impact on IP.

As a final conclusion, this paper found that it is of the most importance to understand that the identification of issues shared among IP worldwide does not mean generalization or standardization of IP or culture itself. The analysis of the cases has shown that there are some common issues present in different indigenous communities that are useful to build a referential list of issues that *must* be included in EIA/SIA. Some of these relevant aspects are:

- The recognition and observation of formal and consuetudinary rights that support the livelihoods of indigenous populations, mostly in relation to the use of the natural resources, including land.
- All the manifestations in which cultural is materialized; including the intangible cultural heritage as defined in the UNESCO's Convention for the Safeguarding of the Intangible Cultural Heritage. This means: languages and oral traditions and expressions; performing arts; social practices and organization, rituals and festive events; knowledge and practices concerning nature; traditional craftsmanship and skills; among others.
- An evaluation of how the natural resources has been being used by the community; including their traditional practices regarding the access and use of land, water, forests, and all other natural resources that could be affected by the project. It must also include agriculture, cattle, manufacture and harvesting systems.
- An assessment of the impacts that out comers and the new uses that they could give to lands and natural resources in general could generate. It includes also the impact of population growth and it influence in acculturation.
- A base line or inventory of cultural manifestations. It is necessary in order to monitor the possible effects that the project may generate on them.
- A description and detailed registration of medicinal plants and practices; and an evaluation of how pollution and the loss of biodiversity could affect them.
- The recognition and respect of institutional structures of indigenous societies within the area of influence. This includes the analysis of local capacities and organization systems.
- Alternatives to avoid involuntary displacement, or detailed resettlement plans elaborated with the participation of the communities when relocation cannot be avoided.
- Participation must be present during the whole process of resettlement in order to fully incorporate IP perspective regarding if the proposed development is environmentally and culturally appropriate; which are the environmental

limitations that will have to be taken into account in the design and implementation of the project; which opportunities have to be prioritized; what kind of measures are necessary to face the threats; etc.

This list is not an exhaustive one as the evaluation of impact has to be contextualized taken in consideration the differences and peculiarities that each indigenous culture presents. Its objective is to draw some basic points, and as such it needs to incorporate them in order to build a holistic assessment.

Even though this is not part of the objectives of this paper, it is necessary to point it out as that as it has been observed through the literature review and confirmed in the analysis of the cases, the loss of TEK is created mainly because of the rapid pace of change imposed by modernization, including cultural homogenization (Agrawal 2005) and this is closely related to the recognition of indigenous rights over their lands and the natural resources within them. There are international regulations regarding this topic that need to be contextualized through local normative that includes consuetudinary law.

Before ending there is an observation that can be found useful for future research on this topic. Through the review of scholar literature, NGOs publications and reports, Governments' official documents, and even private consultancies, it has been found a lack of objectivity in the research related to IP cultural issues. It is true that they are among the most vulnerable populations and they do deserve especial attention; but to idealize them and present them as pristine and untouched produces more damage than good as it could lead to their consideration as something too unreal, or too diffuse to be taken seriously.

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Environmental Defence Fund: www.environmentaldefense.org

Exxon-Mobil Corporation: www.exxonmobil.com

Forest Peoples Programme: www.forestpeoples.org

Friends of the Earth International: www.foei.org

International Finance Corporation: www.ifc.org

International Rivers Network: www.irn.org

Towards Ecological Recovery and Regional Alliance (TERRA): www.terraper.org

World Bank: www.worldbank.org

OTHER SOURCES

Asociacion Civil Labor: Personal communications.

Climate Justice Programme: Personal communications.

Friends of the Earth International – FOEI: Personal Interviews.