

Local Development as a Conceptual Framework for Environmental Impact Assessment

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Abstract

Local Economic Development was used as a conceptual framework for the Environmental Impact Study of the Reventazón Hydropower Project (owned by the Costa Rican Institute of Electricity-ICE). All of the ICE's hydroelectric projects have been approved by the national environmental authority, but opposition to future hydroelectric projects persists. Local communities oppose projects close to their living spaces. They argue that projects do not bring about immediate and tangible benefits for their localities. This has forced the ICE to re-evaluate its role as a forger of development at national and local levels. Compensation and mitigation measures were set within the context of Local Economic Development. The project and its EIA were presented to localities as opportunities to bring key actors of local development together.

Introduction

Costa Rica has been applying Environmental Impact Assessment legislation for almost 15 years. Every major development project requires an EIA which must be approved by the Costa Rican National Environmental Secretary (SETENA-Secretaría Técnica Nacional Ambiental). The Costa Rican Institute of Electricity (ICE-Instituto Costarricense de Electricidad), as the public entity in charge of producing electricity for the entire country must submit an EIA for all of its power generation projects.

This paper will focus on the socioeconomic effects of hydro power projects on communities and how a current team of EIA practitioners is attempting to use a major project as a contributor to local development.

The central points made by critics when it comes to the effects of hydroelectric projects on small Costa Rican communities are the following:

- The benefits of these projects are supposed to be at the national level, but it is communities close to them which experience the costs (and rarely any benefits).
- While in construction, projects bring employment and economic 'bonanza' to communities, but when they are finished, high unemployment and a depressed economy follow.
- Once projects are in their operation phase, the powerhouses become 'enclaves' and close themselves up to interactions with communities and local governments. There is no contribution of these production centers towards the betterment of local quality of life.

It is important to mention that these criticisms are present even with the approval of EIAs by national environmental authorities. EIAs have not addressed important local and community concerns. Ignoring local discontent can be costly for the institution, because there have been cases in which pre-feasibility and feasibility studies for future projects have experienced violence and anger from communities, to the point that they have had to be either discarded or postponed.

The current paper will explain how the concept of ‘Local Economic Development’ has been used as a framework for the EIA of a hydroelectric project which is currently being studied in Costa Rica: Reventazón Hydroelectric Project (P.H. Reventazón). The use of Local Economic Development as a ‘road map’ or guide in the execution of the EIA has the purpose of addressing the criticisms mentioned above and making out of the EIA a true tool for promoting sustainable development.

Background literature

The inspiration to use the concept of Local Development as a guiding light or unifying framework for EIA came from the “International Principles for Social Impact Assessment” (Vanclay 2003). In this article, Vanclay mentions several important features which must be understood about Social Impact Assessment and its role in EIA. All of these features are considered core in order to for SIA to truly fulfill its goal, to promote a more sustainable and equitable biophysical and human environment (Vanclay 2003). However, of particular relevance to the moment and context being experienced by the ICE at the time, were features 1, 2, 5 and 6. There has always been a hesitance of the ICE to get involved in community development activities, even within the context of EIA, because the ICE’s main purpose is to generate electricity and make it available for all Costa Ricans at an accessible financial cost.

The fact that SIA allows for and promotes the involvement of the party interested in the project in local community development actions, is a strong and irrefutable argument in favor of conducting an EIA which is able to integrate all of its solutions for both biophysical and socioeconomic impacts into one important push for development at a local/regional level. All actions must be strategically pointing towards one direction.

Local Development in the Reventazón EIA

Development projects do not exist in a vacuum. When a project begins, even as a rather abstract idea in the mind of an engineer, it gradually becomes part of a larger social, economic and political reality. The Reventazón project has been part of the larger reality of the county of Siquirres, Costa Rica for almost a decade.

The county of Siquirres lies in the central Atlantic region of Costa Rica. It is a county which is heavily dependent on the primary sector of the economy, subsistence and export agriculture. The latest data available, from the National Census 2001, points to an unemployment rate of 7%, with important upward variations at the district level. Road infrastructure is highly deficient, as are health and educational infrastructure (clinics, schools). Health, education and transportation services are not enough to cover the demands of the population. Most communities get water from rural aqueducts which have become obsolete due to population growth and inappropriate infrastructure. Communities also lack opportunities for recreation and cultural activities. All of these problems and others have been identified in the Local Development Plan of Siquirres County 2001-2010 (PDLCS 2001-2010).

The local development plan was carried out by the local government. It was made using a participative methodology. This plan served as a base for all of the socioeconomic studies that needed to be carried out for the Reventazón EIA. The main objectives in using the PDLCS as a guide were:

- To work in conjunction with the local government and not double efforts or contradict goals which had been established at the county level.
- To insert the project and its EIA within a larger social, economic and political reality

- To take advantage of participative processes which had already begun

Incorporating EIA into local development processes

Once a baseline was established, the process of impact identification, valuation and mitigation was begun. The team in charge of the social impact assessment made an initial identification of impacts and possible mitigation/compensation measures during a 3 day workshop. All of the impacts could be seen as either exacerbating or improving some of the major socioeconomic issues such as productive and employment issues; health, education and recreation issues; infrastructure and services issues.

All mitigation and compensation measures were aimed not only at solving the problems generated by negative impacts, but also towards improving some of the negative situations identified in the county development plan.

Siquirres county has high unemployment levels. Available jobs employment are concentrated in only a few sources, such as foreign owned pineapple, banana and macadamia plantations, as well as subsistence agriculture and dairy farming. When an ICE project begins, it competes with other employers and normally attracts a lot of local unskilled labor. However, the problem of dependency on only a few sources of employment is not solved. Once the project ends, unemployment rises again. As a mitigation measure for this problem, the SIA team proposed supporting local productive projects previously identified in the PDLCS. Support from the ICE will come in the form of capacity building, training programs, and social capital creation.

The displacement of traditional subsistence activities such as dairy farming will be an important impact of the project. In an area of high unemployment and few job options, the displacement of the few existing activities will leave farmers with little or no alternatives. This impact is also connected to social impacts such as disintegration of vulnerable communities due to migration. Traditional EIAs have compensated the impact of displacement by paying landowners for their land. This traditional 'solution' does not take into account the costs of acquiring lands of similar quality, the costs of starting up a new operation, plus the social costs of migration from communities if land is not available anywhere near and landowners must move to other regions.

A new solution was proposed for the issue of displacement. The project must offer landowners two different options, to either receive a sum of money for the land affected OR to be part of a larger relocation project. The relocation offers the affected owner technological improvements to his activities through capacity building and training. Since local communities have organized a small cheese factory which takes in milk production from small local milk producers, support to this cheese factory is also part of the compensation measures. Support will come in the form technological improvements and product diversification.

Other areas in which mitigation/compensation measures have been able to contribute towards improvements in local quality of life are:

- Paving of roads and improvements in transportation infrastructure
- Support with health infrastructure
- Construction of two cultural centers which exhibit rescued archaeological and historical material.
- Improvement rural aqueducts
- Capacity building programs in topics of organization, leadership, administration and other themes related to building social capital.

- Compensation of impacts to local aquatic fauna and flora through construction of a fish reproduction laboratory and plant nursery; communities will be involved in these two projects through environmental education programs and plant/fish reproduction for commercial purposes.

All of these projects require short, medium and long term monitoring. Strong work is being done to involve the environmental management team responsible for acting during the production stage of the project. Monitoring and correction measures are key for promotion of local development. It is also one of the core features of EIA mentioned by Vanclay (2003).

A basic ingredient for development is teaching communities and organizations in a region to work together towards a common purpose. Although this seems to be a very straightforward idea, it has been one of the most challenging concepts for Costa Rican local governments and the country as a whole. The company's ability to establish connections with different stakeholders in local development is the first step towards unifying efforts.

Clear 'rules' are established regarding the execution of development measures. The most important caveat is that the ICE can build physical infrastructure but other stakeholders must also supply the human resources necessary to maintain infrastructure and make it useful. Local governments must also commit themselves to the same goals. This entire process of establishing responsibilities and common goals is perhaps one of the most vital ways in which the process of development can be supported.

Conclusions

The concept of local development has served as a guiding concept in the EIA for the Reventazón hydroelectric project. The PDLCS 2001-2010 for the county of Siquirres, the area where the project will be located, has served as a mean to insert the future project and its EIA into a political, economic and social reality. The goal has been to integrate the project into a larger medium, and respond to the necessities of the localities which will bear most of its impacts. Since resources are scarce and the project has the ability of bringing not only financial but also human resources to a region with a lot of need, it seems only logical that these resources will be invested in the areas where they are able to generate the most benefit. These areas had been previously identified by the local government and validated by communities. The EIA process simply has taken a finer, more detailed look, community per community, but always keeping clear the larger picture established by the local development.

References

Plan de Desarrollo Local del Cantón de Siquirres 2001-2010, Universidad Nacional y programa UNIR, Municipalidad de Siquirres, Siquirres, Costa Rica.

Vanclay, F (2003), International Principles for Social Impact Assessment, *Impact Assessment and Project Appraisal*, volume 21, March, pgs. 5-11, Beech Tree Publishing, Surrey, UK.