BACKGROUND

Water infrastructure development in the Amazon is to be an issue of growing importance for the countries of the region: according to Brazil’s National Energy Plan for 2030, 70% of the necessary hydro electrical power generation of the next decades (ca. 60,000 MW) will come from the Amazon; similar plans are set for investments in Ecuador whereas feasibility studies of the hydro electrical potential and long-term energy plans to affect the Peruvian Amazon are underway. Bolivia also entertains the possibility of building two large hydroelectric projects in the Madeira River system, upstream from where Brazil is planning the construction of the Santo Antonio and Jirau dams as part of its Madeira hydroelectric complex.

Latin American countries have experienced a period of economic growth and development with ever increasing demand for energy. Regional energy crisis such as the “apagão” of 2001 led to an in-depth discussion regarding the mix for the energy matrix in Brazil. This has caused, for example to a significant expansion of thermal plants (some of them to burn sugar cane bagasse), the reengagement of the GOB with plans for the expansion of nuclear energy production at Angra dos Reis, as well as a renewed interest in the implementation of new hydroelectric projects. Argentina currently faces a strong energy crisis and the recent politically driven gas crisis in Bolivia has triggered other concerns related to vulnerability and resiliency of the energy matrices in the Southern Cone.

In this context, where there could be strategic and economic pressure to new infrastructure investments, the potential for the implementation of a complex portfolio of large-scale hydroelectric proposals to the Amazon is very high. Some of these projects are new and daring, like the unusual run-of-the-river bulb turbines technology of the two proposed Madeira river dams in Brazilian territory, others more traditional, although revised and renamed, such as the Belo Monte dam in the Xingu River. However, in a world of growing concerns with the potential severe economic impacts of climate change, the links with deforestation as an important contemporary

1 Unusual for Brazil and at the scale proposed with over 40 machines working in parallel
2 The idea of building a dam in the slope of so-called “big bend” of the Xingu River dates of the early 80’s, when it was named Caracarao.
driver of global warming, and the recognized need for the development of adaptation strategies, any hydropower development in the Amazon basin remains a highly controversial and divisive issue.

While it is legitimate to assume that a discussion regarding hydropower development in the Amazon requires a broader national and regional investigation of alternatives for challenging and meeting energy demands, in particular the need to invest more and more consistently in conservation and efficiency measures, it is equally safe to establish as a working hypothesis that no matter what solutions or alternatives are found to tackle the supply needs and adjust the composition of energy sources which shall better fulfill them, some significant level of hydropower generation in the Amazon will remain as a priority item in the expansion plans in Brazil and in other countries of the region.

This process of growth in the regional energy demand combined with the imperative need to mitigate climate change, to protect unique biodiversity, and to ensure the rights of indigenous communities and traditional populations increases the demand for guidance and means of maximizing benefits while reducing adverse impacts of hydropower generation.

**GOAL**

To ensure sustainable hydropower development in the Amazon region based on ecologically sound planning and scientific and transparent decision-making processes.

**OBJECTIVES**

The main objective of the current proposal is to address the highly complex and difficult challenge of hydropower development in the world’s largest and most biodiverse rainforest region through the construction of a proactive - solutions oriented - dialogue amongst key stakeholders with the goal of developing a work agenda grounded by: (i) transparent information exchange; (ii) consolidation of existing technical and scientific information - and when necessary development of additional information – into a consistent and commonly trusted knowledge base; (iii) honest debate and discussion of differing ideas and perspectives; and (iv) development of a decision matrix including areas of agreement, points of divergence, and working agenda to bridge the gap in those issues for which differing views are recognized. The ultimate result would be to create the right environment and participatory processes that lead to agreements on sustainable hydropower in the Amazon.

The proposed initiative would bring together key stakeholders - from industry, governments, developers, non-governmental organizations and other representatives from civil society – interested or concerned with hydropower development in the
Amazon basin in an attempt to forge agreements on options, sustainable hydropower criteria, best practices and realistic instruments and alternatives for their implementation.

**KEY ACTIVITIES**

It is proposed that the first stage of this process would start in September 2008 and take three years to be completed through the implementation of the following phases:

a) **Identification of key stakeholders and interested parties** - the first stage of the work involves the identification of stakeholders that would be willing and committed to working together for development and implementation of the proposed dialogue / process. These stakeholders include Governments that are the main sponsors for the implementation of hydroelectric projects, conservation organizations that are mostly concerned with the preservation of biodiversity and with the reduction of human footprint, social groups that seek to ensure the preservation of rights and cultural values of indigenous peoples and traditional communities, private sector and industry that are the main drivers of economic development, academia with the focus on the scientific and technical objectives, professional associations that represent important stakeholders, amongst other directly involved groups.

b) **Engagement with identified stakeholders to reach agreement on phases of the process, rules of engagement, and milestones** – once the main group of stakeholders is identified each one would be contacted to confirm their willing and ability to participate. This would lead to the identification of sponsors or participants. Sponsorship would be characterized by strong level of involvement and leadership in the process. Sponsors would hold regular roundtable meetings. It is hoped that Governments in the region (e.g. Brazil, Bolivia, Peru, etc) would agree to be the leaders of this process. WWF would serve as a catalyst and facilitator to the process.

c) **Preparation of working plans and agreement on division of responsibilities and tasks** - a work agenda would be developed and agreed with. This would include specific commitments by different parties to assist in dialogue implementation through the development of knowledge, sharing of information, funding activities, etc.

d) **Engagement of facilitator for consultation and assessment of needs and interests** - a consultant would be contracted to facilitate the launching of the dialogue. This would include individual meetings with sponsors to assess needs and expectations. An institutional map of objectives would be developed indicating the main motivation and goals of each stakeholder. The consultant would identify main areas of agreements as well as the principal differences between the views and aspirations of each group of stakeholders;

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3 The different stages within the process are not all consecutive and some of them main take place in parallel.
4 These would be limited to entities with legitimate and direct interest in the issues such as the International Hydropower Association (IHA); International Water Resources Association (IWRA); World Water Council, etc.
e) Preparation of technical information, whitepapers and strategy proposal – an information database would be developed. This would be complemented by the preparation of whitepapers dealing with issues that need to be better understood or that have not be seriously or systematically considered in the Amazon. For example, WWF is committed to producing a paper on a “go and no go river strategy” to assess the feasibility, pros and cons of such an approach for hydropower development in the Amazon. Strategic choices and alternatives would have to be enlisted during this phase so that agreements could be reached in subsequent stages of the work;

f) Organization of a workshop in the Amazon region to bring together dialogue participants, review technical work and proposal and agree on first level (first version) decision matrix – dialogue participants would meet at a mid-term workshop to review the institutional map, to evaluate the matrix of agreements and differing views, to present technical information, to share knowledge, to evaluate alternatives and to agree on a working agenda for the following year.

g) Consolidation of workshop agreements, dissemination of results, and development of work agenda for the second year – following the workshop a paper would be prepared summarizing the process and the agreements of the workshop. This paper would be shared will all participants and it would be the blueprint to guide the continuation of the work.

IMPLEMENTATION AND TORs

A position of a Hydropower Specialist will be supported for three years within the proposed initiative. The role of the post-holder will be to take the lead in implementing the above objectives in coordination with WWF Brazil, Dams Initiative, Amazon NI and International staff from the freshwater, climate change, sustainable livelihood and regional programs (as well as relevant field offices). Specifically, the work program will include:

1. Coordinate the development of an overall strategy on sustainable hydropower based on best practices in Amazon countries (Brazil in particular) and overseas
2. To produce an assessment and or feasibility study of hydropower retrofitting opportunities in Brazil/Amazon
3. Study economic impacts of climate change in Amazon hydropower generation and logistics alternatives
4. Develop policy/position papers on sustainable hydropower and communications materials for engaging with Governments and other decision makers
5. Promote the usage of tools and models that explain the links between infrastructure and impacts, including climate change among key stakeholders
6. Work with industry, government, financers and civil society to develop and agree on sustainable hydropower criteria and protocols for the whole Amazon
7. Work in advocacy for the incorporation of socio-environmental criteria into national and regional energy policies
8. Advocate capacity building of relevant government institutions, civil society and technical institutes to be more involved at various stages during the environmental licensing process
9. Advocate the strengthening of legally binding mechanisms for public participation in energy policies (example, membership of national planning committees)

10. Interact with the global WWF network’s hydropower program to promote lessons and best practices from the region and bring in global perspectives to the regional context.

LOCATION AND REPORTING

The position will be based in the WWF Brazil office in Brasilia. The infrastructure thematic leader of the Amazon NI will be the immediate administrative supervisor. Work programmes will be agreed cooperatively between managements of WWF Brazil, the Amazon NI and the Dams Initiative.