# Enhancing Development Benefits to Local Communities from Hydropower Projects

## Technical Workshop

SOCIAL DEVELOPMENT DEPARTMENT | ENERGY, TRANSPORT & WATER DEPARTMENT - WATER ANCHOR | MAY 2009

SOCIAL DEVELOPMENT DEPARTMENT &
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## Technical Workshop

Social Development Department & Energy, Transport and Water - Water Anchor
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## List of Abbreviations

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| ADB | Asian Development Bank |
| CDM | Clean Development Mechanism |
| CEO | Chief executive officer |
| DDP | Dams & development program |
| ECA | (World Bank) Europe and Central Asia Region |
| EMP | Environmental management plan |
| ERA | Electricity Regulatory Authority |
| ESIA | Environmental and social impact assessment |
| ETWWA | Water Anchor of the World Bank |
| EVN | Electricity of Vietnam |
| GEF | Global Environment Facility |
| GTZ | Gesellschaft für Technische Zusammenarbeit (German Agency for Technical Cooperation) |
| IAIA | International Association for Impact Assessment |
| IDA | International Development Association |
| IFC | International Finance Corporation |
| IPP | Independent power producer |
| MDGs | Millennium Development Goals |
| NGO | Nongovernmental organization |
| NPA | National protected area |
| NT2 | Nam Theun 2 (Laos) |
| NTPC | Nam Theun Power Corporation |
| OECD | Organization for Economic Co-operation and Development |
| OPCQC | Operations Services Quality Assurance & Compliance Unit |
| PPP | Public-private partnership |
| RAMSAR | The Convention on Wetlands of International Importance |
| SDV | Social Development Department of the World Bank |
| TA | Technical assistance |
| UNEP | United Nations Environment Programme |
| WMPA | Watershed Management Protection Authority |
| WCD | World Commission on Dams |
| WWF | World Wildlife Fund |

## Executive Summary

The Technical Workshop on Enhancing Development Benefits to Local Communities in Hydropower Projects was held in Washington, D.C., on June 26, 2008. It was hosted by the Social Development Department (SDV) and Water Anchor (ETWWA) of the World Bank. The workshop aimed to provide a platform for a discussion of past and current practices, as well as how to construct development benefits mechanisms within the specific context of hydropower projects. It also provided a forum for sharing knowledge as to how development benefits mechanisms may be applied to Bank-financed projects. The workshop had five sessions and brought together more than 60 experts from different sectors in different regions of the World Bank. Sixteen speakers gave presentations. The workshop had discussions on enhancing development benefits to local communities in hydropower projects and also covered issues pertaining to the broader range of benefit-sharing, including World Bank engagement in hydropower projects, legacy of hydropower, notion evolution, approaches and mechanisms, and good practices in benefit-sharing of hydropower projects.

**The World Bank engagement**. The World Bank Group has committed to re-engage in investing in water resource infrastructure, including single and multipurpose hydropower projects. After decades of high-profile involvement in this sector, the late 1990s and early 2000s saw a dramatic scale-down of its involvement in new hydropower developments, primarily due to concerns about the environmental and social impacts of dams. In 1999, no new lending was approved for hydropower. Between 2002 and 2004, the amount was less than $250 million a year; from 2005 to 2007, it went up to $550 million a year, and in 2008 it reached $950 million to hydropower projects and another $150 million to TA and carbon finance.

**Legacy of hydropower projects.** Hydropower has had a mixed legacy, but is increasingly recognized as providing multiple opportunities to significantly enhance local community benefits, along with regional and transboundary development if planned and implemented in a sustainable manner.

The following are the legacies of hydropower projects:

- Adverse impacts on people and livelihoods
- Lack of stakeholder and community involvement
- Unequal distribution of costs/benefits
- Benefits outside of the influence area
- Local communities were the most adversely impacted, but benefited the least.

**Notion of benefit sharing.** Benefit-sharing is a framework to maximize and distribute benefits across stakeholders, consistent with the principles of sustainability. From a social perspective, benefit-sharing is a recognition of lessons learned from hydropower's legacy, the roles of social and cultural factors in the effectiveness of outcomes, the added value of multisectoral integrated approaches, and the rights of local communities to benefit from development projects. Sharing benefits is an evolution in thinking. In hydropower, we started with eminent domain—land acquisition and trickle-down benefits to local communities. Then we moved on to mitigation and compensation, so that we were minimizing the negative impacts and addressing troublesome issues. Now the evolution is toward sustainable development, which requires:

- Moving beyond mitigation and compensation to maximizing development benefits and more equitable outcomes
- Working directly with affected communities to increase investment effectiveness and outcomes.

**Approaches and mechanisms of benefit sharing**. A range of mechanisms are available to enhance and share benefits. Benefit-sharing consists of a combination of monetary and non-monetary mechanisms adapted to specific project contexts. Monetary development benefits are linked largely to economic rent, fair distribution, full compensation, entitlements, national priorities, and optimization of opportunities, and include basically taxation, royalties, preferential rates, revenue sharing, development funds, and joint ownership. The non-monetary development benefits include, for example, allocation of fishing rights in reservoirs; priority hiring of local community members during construction; start-up support for local companies; capacity building; multipurpose infrastructure; rural electrification; and access to improved infrastructure.

## SESSION 1: Context and Purpose

**Navin Rai (chair)**
Lead Social Development Specialist, Social Development Department, The World Bank

**Hartwig Schafer**
Director of Operations and Strategy, Sustainable Development (SDN) Network Vice Presidency, The World Bank

**Abel Mejia**
Sector Manager for the Water Anchor, and Focal Point for Hydropower Re-engagement, The World Bank

**Alexandre Marc**
Acting Director of the Social Development Department, The World Bank

**Navin Rai**, lead social development specialist for the World Bank, opened the technical workshop by welcoming attendees. He then introduced **Hartwig Schafer**, director of operations and strategy, SDN, who delivered the first set of opening remarks.

In welcoming the external experts and World Bank staff to the workshop, Mr. Schafer noted the timeliness of the meeting. After more than a decade of hiatus, the Bank's lending portfolio in hydropower is scaling up. Mr. Schafer cited three significant changes that have helped to stimulate this renewed investment in hydropower. First, local communities are now more vocal, ready and willing to participate in hydropower development opportunities, and to share in the benefits. The relationships with governments and local communities are different. Governments are saying they need investment in infrastructure, particularly to tap their underutilized hydropower resources, and the private sector is coming in to invest. Second, hydropower is clearly at the center of the debate on climate change. And third, hydropower is often transboundary, so there are opportunities to look at how the benefits of hydropower generation can be shared across countries.

Mr. Schafer encouraged the participants to regard the workshop as a platform for discussion, to learn from past experience and to help the Bank to "get it right."

**Abel Mejia**, sector manager for the Water Anchor, and also the World Bank Focal Point for Hydropower Re-engagement, provided the second set of opening remarks. He thanked the organizers, acknowledging the joint work of the Social Development Department (SDV) and the Water Anchor on beneficiaries of hydropower projects.

In explaining why this initiative has significance across the regions and different areas of the Bank, Mr. Mejia noted that the International Energy Agency had just published their *Technology Perspectives* for 2008, which projects a global baseline scenario of new hydropower generation capacity additions in the range of 15,000–20,000 megawatts per year until 2050. Climate change, fuel pricing issues, and a very tight situation of supply and demand for energy has brought to hydropower a set of incentives—and incentives to do it right. The discussions at this workshop are a fundamental element in doing that.

Mr. Mejia observed that the Bank's lending in hydropower is increasing toward $1.5 billion a year, which would be roughly 10 percent of annual worldwide investment in hydropower. The Bank hopes to use the expertise and wide array and richness of experience that it has gained in managing its safeguards to bring a balanced view of social and environmental objectives to hydropower projects.

Mr. Mejia sees the Bank pursuing a double track. The first track is to engage with countries and regions for the long-term planning and assessment of local and regional implications. The development of a medium-to-large hydropower project takes 15–20 years—longer than the Bank's normal cycle. The careful analyses can be supported from trust funds and donors. The second track is at the lending level, where the regional impacts and transboundary issues of hydropower are huge. From his experience, Mr. Mejia suggested that for every dollar the Bank spends on new generation capacity and dam facilities, an additional investment of 15 to 20 cents is needed at the regional level for economic and social infrastructure.

Drawing upon the experience of his native Venezuela, Mr. Mejia noted the enormous regional impacts and benefits of hydropower projects. But experience also shows that how we define the boundaries of projects, from the local to national, to the regional and transboundary level, is important. The Bank's new *World Development Report* recognizes that development does not take place evenly. There are territorial and spatial consequences and disparities, as well as transboundary implications and opportunities. This will be an increasingly critical element in infrastructure projects, and hydropower can play a major role in placing that in the right context.

The final opening remarks were from **Alexandre Marc**, acting director of the Social Development Department. Mr. Marc began by suggesting that the biggest challenge for the World Bank in its "return to infrastructure" is to adequately address the social and environmental impacts.

Mr. Marc observed that much has changed since the Bank was last heavily involved in infrastructure, and suggested three basic paradigm shifts that need to be taken into account. First, there is less acceptance that a small group can be sacrificed for the good of the nation. Over the past 20 years, with decentralization and reinforcement of the role of the community, there has been a major change in the way that governments around the world operate. Today, everyone needs to have a share in whatever is being done.

The second paradigm change involves "sharing" itself. Sharing is no longer simply getting a school or a road built in your community by a government that you haven't seen involved, but having a say in what is being done in your community, having a chance to interact with people who are making decisions. The different members of the community want to have a say in what the community decides. This paradigm shift of participation or community-driven development has taken root in the Bank, along with social accountability.

The third changed paradigm identified by Mr. Marc is the role of the private sector. Today, corporations realize that they need to change the way they operate, that consumers care about what they do. Companies that produce electricity know that they have social and environmental responsibilities. We see tremendous innovation taking place in the private sector, not just in the North, but also in the South, as reflected in some of the presentations that will be made in this workshop.

Mr. Marc also noted that for some Bank staff, the first reaction to environmental and social issues is "But that is going to require additional work, and it is going to add additional costs." And "We are not going to compete with the private sector, and we're not going to be able to do everything that government wants." But the private sector and governments are both increasingly taking these costs into account. The Bank has a role in explaining why short-term additional costs in preparation will make huge savings in the long term. Moreover, Mr. Marc suggested that much of what is called "additional cost" simply means doing things differently.

In closing, Mr. Marc thanked the participants for their involvement, and expressed his commitment to working with the Bank's team on this huge challenge.

Hydropower Legacy and the Enhancement of Development Benefits to Local Communities
Peter Leonard, senior social development specialist, Quality Assurance and Compliance Unit, World Bank

**Peter Leonard's** presentation provided an overview of the evolution, legacy, lessons learned, and recent trends in hydropower projects, and also reviewed approaches and mechanisms for enhancing development benefits from hydropower.


**The Hydropower Legacy**

Mr. Leonard stated that, following the hiatus—a relative disengagement from hydropower investments in the past decade—and numerous debates on the pros and cons, there is a growing recognition of the contribution of hydropower as basic infrastructure, as a source of renewable energy, as a positive force in climate change, and as a component in achieving water security.

The hydropower legacy has a dark side, but there are multiple examples of good practice. One example of good practice is EM1-Rupert La Sarcelles, which represents the sum of lessons learned in 20–30 years of hydropower projects in northern Quebec.[1] When this project was being planned, it was approached completely differently than a decade or so earlier on a similar hydropower project in the area known as the Great Whale Project, which "was probably the most extensively studied hydropower project ever planned but never built." The Great Whale Project, as was common practice then, was prepared as a technical and financial project while mitigating environmental and social impacts. In EM1-Rupert La Sarcelles, environmental and social concerns were addressed directly in the project conception and design; social considerations were dealt with upfront early in project preparation. Hydro-Quebec is presently confronted with the challenge of implementing this project, but clearly the way of addressing environmental and social issues has changed tremendously and evolved for the better.

[1] A full description of the Eastmain 1-A/Sarcelles/Rupert project was presented by Real Courcelles during Session 2.

Mr. Leonard's other two examples of good practice were Nam Theun 2 in Laos, and Fortuna in Panama.[2] Nam Theun 2 is state-of-the-art in many regards, but arguably its good practices should have been initiated earlier in the project cycle. Fortuna, Panama's largest hydropower plant, may be considered both a good and not-so-good example. When Hydro-Quebec did its due diligence before acquiring Fortuna, the environmental aspects were considered to be well-addressed: a protected area was created around the watershed, and the Smithsonian and the National Audubon Society were involved in scientific research and management of the area. On the social side, however, Hydro-Quebec found that the Indigenous Peoples living in the immediate vicinity of the reservoir and surrounding area had no electricity, and there was child malnutrition and high infant mortality. Thus a series of actions and programs were initiated to rectify these issues, some of which were beyond the realm of responsibility of the proprietor.

Mr. Leonard then cited three case studies of the World Commission on Dams that were used for training at the First International Hydropower Sustainability Conference for the International Hydropower Association, held in Turkey in 2007. Participants in that training were asked to focus on the question: If we were to do these projects in 2007 with what we know today, how would we do them differently?

The first case was Kariba, a 1,350 MW project in Zambia/Zimbabwe where approximately 50,000 people were resettled. Although there is a thriving fishing industry and tourism today, there are still unresolved issues about the process by which the local communities benefit from the project. The second example was Tucurui in Brazil. The EIA was conducted after construction of the project began, and there are still outstanding issues linked to the forced displacement of people. The third case used in the training was the Pak Mun Dam in Thailand. Pak Mun is a much smaller, run-of-river project, where the livelihoods of the local populations were also an issue. Was the loss of livelihoods real or perceived? The project was being done for the greater good of the country. Who do we compensate? Why should we compensate?

These three case studies, Mr. Leonard observed, are well-known examples that illustrate both the legacy issues, and also how the hydropower and dam industry, governments, and stakeholders have begun to work together to address legacy issues and improve projects.

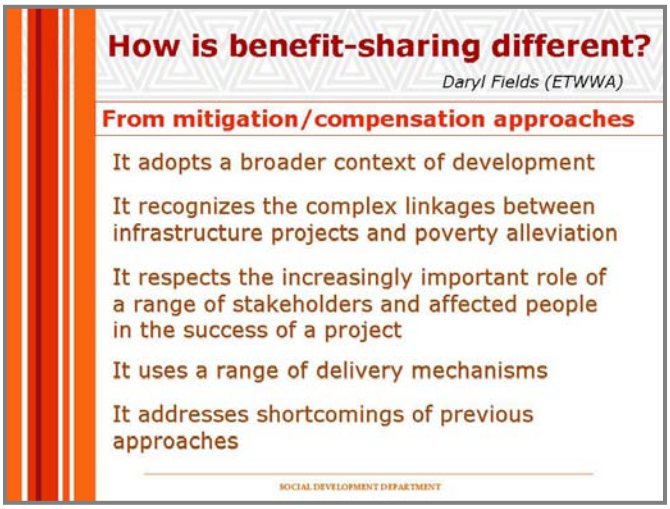
So what are the lessons learned? In a nutshell, integrated water management is a core component. Ecosystems and biodiversity are also part of the main challenges. For a project in northern Canada we are looking at 20 to 30 species of fish, but for a project on the Amazon River, we may be looking at more than 750 species of fish. The level of complexity differs depending on the type of environment in which the project is located.

Mr. Leonard also thinks that it has become clear that managing social and environmental impacts must move beyond simply preventing and mitigating to enhancing positive impacts and seeking development opportunities. He sees a continuum in efforts: in the mid-1990s, there was a realization that hydropower and dam projects were not always as good as they should be. An OECD report began a concerted discussion on good practice. Then came the World Commission on Dams followed by UNEP's Dams and Development Project, and the creation of the International Hydropower Association. The World Bank is involved in all these discussions to a greater or lesser degree.

[2] Glenn Morgan's presentation, during Session 4, focused on the Nam Theun 2 Project.

*Approaches and Mechanisms*

Within this context, there has been a changing landscape of approaches: moving beyond mitigation and compensation to maximizing development benefits and more equitable outcomes. In terms of risk management, environmental and social issues have increasingly become integral parts of investment risks. Since the 1980s, budget allocations for environmental and social issues have tended to increase, and there is a general correlation between the effort and resources used for considering social and environmental factors, and the project's social and environmental outcome.




Another part of the changing landscape is working directly with affected communities to increase investment effectiveness and outcomes. Third-party intermediaries and NGOs continue to play important roles, but a growing number of project proponents have learned to talk, listen, and deal directly with affected peoples. Free, prior and informed consultation is also becoming part of doing business. Broad community support is becoming part of assessing investment sustainability.

Mr. Leonard cited a definition of benefit-sharing from his colleague, Daryl Fields: "A framework to maximize and distribute benefits across stakeholders, consistent with the principles of sustainability." In addition, Mr. Leonard sees benefit-sharing as a paradigm shift from a social perspective. It is a recognition of (a) lessons learned from the hydropower legacy; (b) the role of social and cultural factors in effectiveness of outcomes; (c) the added value of multisectoral integrated approaches; and (d) the rights of local communities to benefit from development projects.

Why should benefit-sharing focus in particular on local communities? Mr. Leonard observed that in past projects, local communities are often the most impacted but least benefited. Local communities include not only the directly impacted communities, but also those affected by indirect or induced impacts. Part of the complexity of hydropower projects are their indirect and cumulative impacts. The combination of indirect and induced impacts is often more important than the direct impacts.

What do we mean by "enhancing local benefits"? Mr. Leonard suggested that there are a wide array of approaches—from the policy level to project design—that are made up of a diverse and evolving series of monetary and non-monetary mechanisms. Benefit-sharing consists of a combination of monetary and non-monetary mechanisms adapted to specific project contexts. Each mechanism has its advantages and limitations.

Examples of monetary development benefits include taxation, royalties, preferential rates, revenue sharing, development funds, and joint ownership. These are linked largely to economic rent, to issues of fair distribution, full compensation, entitlements, national priorities, and optimization of opportunities.

Examples of non-monetary development benefits include allocation of fishing rights in reservoirs; priority hiring of local community members during construction; start-up support for local companies; capacity building; multipurpose infrastructure; rural electrification; and access to improved infrastructure. These are often embedded or derived from environmental assessments or social assessments linked directly or indirectly to development outcomes. They broaden the scope—beyond safeguard compliance—and take advantage of project development opportunities.

Mr. Leonard concluded his presentation by offering a few thoughts on the challenges to enhancing development benefits. First, they are important. Benefit-sharing can be a controversial policy issue. Governments set the national priorities. Country legislation may limit its applicability—legislation differs enormously from one country to another on benefit-sharing. Poor governance and weak institutions can hinder implementation, which is a key component of a successful benefit-sharing program. Political interference may derail the process. Also, distributing benefits equitably raises issues of elite capture, especially at the local level. Managing the expectations of local communities and communities' perception of fairness of benefits within a project can be problematic. There is diversity of communities, and diversity within those communities. Lastly, designing and implementing an effective benefit-sharing program requires extensive community participation, and therefore the time and resources to do so.

**Scaling up Hydropower for Development**

***Daryl Fields,*** *Senior Water Resources Specialist and Team Leader, ETWWA*

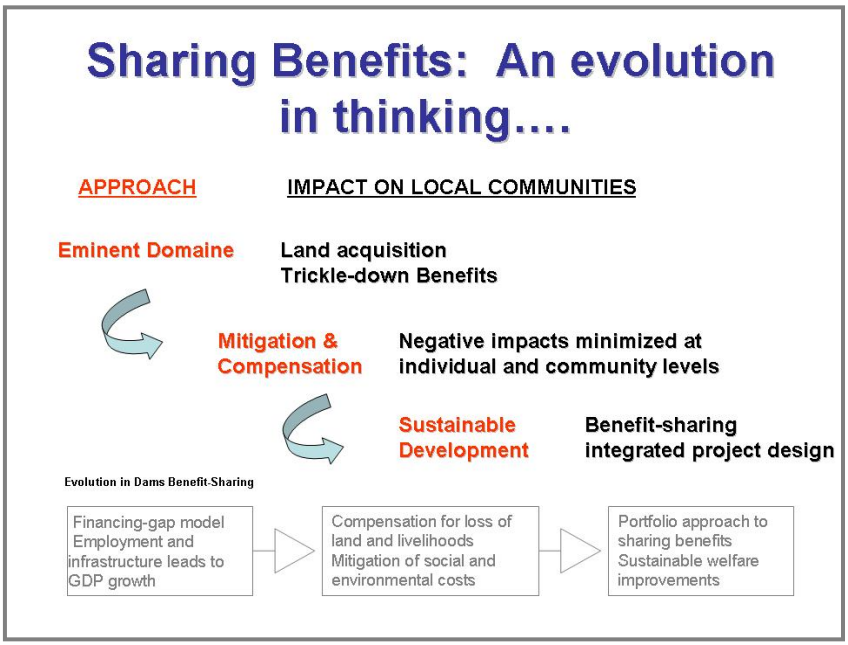
Daryl Fields began her presentation by asking three questions:

1. What do we mean by this reengagement in hydropower or scaling up hydropower from the World Bank's perspective?;
2. How much of a change is the enhancing development benefits concept from previous practice? Are we shifting directions?
3. What are the risks of adopting this approach or paradigm?

***Re-Engagement: The Bank's Perspective***

Ms. Fields suggested that the Bank's re-engagement is best explained through the lending numbers. In 1999, no new lending was approved for hydropower. Between 2002 and 2004, the amount was less than $250 million a year; from 2005 to 2007, it went up to $500 million a year; and in 2008, it topped $800 million.

In addition, she observed, the portfolio has changed. In the early 2000s, apart from China, it was dominated by small carbon-funded projects mainly in Latin America. Now, there are large greenfield projects, as well as rehabilitation projects and recapitalization: Nam Theun 2 at $290 million, Inga Rehabilitation, $300 million for Inga I and II. The Rampur Project is a medium-sized 400 MW, $400 million run-of-river greenfield site in India, and the Magat, a $100 million privatization by IFC in the Philippines.




Ms. Fields briefly described four development drivers for re-engagement: (1) greater focus on **energy security** in an increasingly complex sector; (2) more mature understanding of the cost of hydrologic variability and the concept of **water security**; (3) development programs and natural resources management based on **regional coordination**; and (4) the imperative of mitigating and adapting to **climate change**.

The bottom line, Ms. Fields suggested, is that "our landscape for scaling up is within the context that the strategic development value of hydropower is expanding. It is quite different from early years, or from even ten years ago."

Another key element of this change in the landscape, she suggested, is the new paradigm for quality. A number of people from the Bank have been involved in the World Commission on Dams, and the UNEP Dams and Development Program. We have had two intensive decades of learning about the risks and management responses and understanding about what needs to be done, so we have a very different definition of what makes for good hydropower. Ms. Fields suggested that benefit-sharing and enhancing development benefits is integral to this. "You can't get the value from water security if you don't take the broader view, if you're only thinking about energy," she said. "You can't exploit those development benefits related to climate change or related to water security equally. If you don't think about enhancing development benefits, you're not going to make this shift in the quality paradigm. So, if you look at how the World Bank is looking at re-engagement, the four drivers of value, and the change in the quality paradigm, those can't go ahead without some focus and real attention to the concept of enhancing development benefits. It is integral."

***How different is this?***

Ms. Fields suggested that sharing benefits is an evolution in thinking. In hydropower, we started with eminent domain—land acquisition and trickle-down benefits to the local communities. Then we moved on to mitigation and compensation, so that we were minimizing the negative impacts and taking care when people were troubled. And the evolution now is toward sustainable development. Within the World Bank, the establishment of the Sustainable Development Vice Presidency last year underscores this.

So, this is an evolution, it's not a turn or a shift, it is an evolution in how we are thinking about hydropower worldwide. "It is not just because we are all good people, but it is based on need. She believes that there is a strong business argument for this approach. "It isn't about doing something nice for somebody else. This is about making the business work for everybody."

*The Risks*

Ms. Fields also sees many opportunities for going from single output to multiple interests. But what about the costs sharing and risks of this kind of approach? We've heard that this calls for a broader, regional development perspective, for which appetites are huge. So, one of the risks is managing expectations, recognizing that a single project cannot bootstrap development of a whole community. It is an element in that, but not everything can be placed on one project—things can just become too complex. So, when we engage in benefits-sharing and enhancing local development, we have to pay attention to project complexity, to how much we are demanding of a project.


There are some basic minimums. This is about "sharing project benefits, not putting a project into a deficit position." And it is about synergistic effects, not just adding independent needs of a community. For example, if you have to develop roads for the project, the synergy is to develop the roads so that they benefit the community—not other roads that may not have a direct impact. We are "looking for those large benefits at small incremental cost."

The other risk that Ms. Fields highlighted is that there will be tradeoffs, balancing across objectives that may not have a common yardstick. We're going to be comparing environmental benefits with cultural resources with revenue comparisons. So, she said, "it will require more dialogue on values and relative priorities, and there is not going to be any one right answer. So it fundamentally changes the decision-making process for development of projects."

In closing, Ms. Fields made three concluding points. First, part of the risk is: How can we really be practical about implementation of this concept? It has been said that "It is striking when reading the literature that although references to benefit-sharing are numerous, little substance is discernible beyond the catch-phrase level." It is pretty hard to do practical things on catch phrases. So, one of our challenges, especially in the work that Navin Rai has outlined, is making this practical.

Her second concluding point was that we already have examples of benefit-sharing mechanisms. This is not totally new territory. But we do have a number of challenges in terms of recognizing this shift to multiple interests as an integral part of project conceptualization. We need to refine and strengthen tools for practitioners, consider how we put together the different mechanisms for benefits-sharing to something that meets the needs of the specific situation. And, as a final point, we need to address this new change to decision making.

In summary, Ms. Fields stated that she thinks that the whole concept of enhancing development is critical within the World Bank. “In terms of how we’re perceiving hydropower, we can’t go ahead without it.” There are lots of opportunities, but we need to work on making it practical, reducing the risks of doing it. “This is what we hope to do with our panel of experts over the next 18 months or so, and with the help of practitioners like you.”

## SESSION 2: Voices of Local Communities

**Walter Arensberg (Chair)**
Social Capital Group

**Indigenous Peoples: Some Perspectives on Benefit-sharing**
***Joji Carino,*** *Indigenous Policy Advisor and European Desk Coordinator, Tebtebba Foundation*
Joji Carino, who was a commissioner of the World Commission on Dams (WCD), began her presentation by noting that the report—*Dams and Development—a New Framework for Decision Making*—translated the collective learning of the Commission into a framework of priorities that could be applied throughout the strategic planning and project cycle. She said that her deepest satisfaction with the WCD report and process was its affirmation of human rights as a dimension of human development. In her presentation, she described how the affirmation of human rights and development reinforce each other.

***Human Rights and Development***
Ms. Carino noted that UNEP's *2000 Human Development Report*, published the same year as the WCD report, called for a shift in thinking about poverty eradication—from being a development goal to being social justice, fulfilling the rights and responsibilities of all actors, and upholding equality and dignity of the poorest and most vulnerable in the development process. Ms. Carino underlined that it is important to bring human dignity into the development process and not to treat project-affected peoples as being simply beneficiaries in the development process.

She said that the WCD's call for gaining public acceptance of water and energy projects, including the free, prior, and informed consent of Indigenous Peoples for dams built on their lands and waters, was the strategic priority of the commission that was most deeply debated, and was fundamental to the consensus report.

She believes that the closely related strategic priority of recognizing entitlements in sharing benefits calls for joint negotiations with adversely affected people toward mutually agreed and legally enforceable mitigation, resettlement, and development plans, which recognize entitlements, the improved livelihoods and quality of life, and making the affected people beneficiaries of the project.

These recommendations on the social dimensions of dams and the inclusion of project-affected peoples in decision making are fundamental for discussions on enhancing development benefits for local communities. She believes that the issues of equity, governance, justice, and power are at the heart of the dams debate. These are issues that underlie many intractable problems of sustainable development.

Ms. Carino suggested that reconciling competing needs and entitlements is the single most important factor in understanding conflicts associated with development processes. And clarifying the rights context for a proposed project is an essential step in identifying those legitimate claims and entitlements that may be affected by a project or its alternatives. It is also a precondition for effective identification of legitimate stakeholder groups that are entitled to a formal role in the consultative process, and for eventually negotiating project-specific agreements relating to compensation, resettlement, and benefit-sharing.

Addressing the conflicts related to dams requires greater inclusiveness in strategic planning in the project cycle. The way forward is toward negotiated decision making by the key actors and interested parties, including the most vulnerable groups in given dam projects. Any other way would be to unleash conflicts that have plagued dams in recent decades, and still today.

***Challenges for the Bank***

Ms. Carino encouraged the World Bank to be attentive to this dimension as it enters into a renewed investment in dam projects. She feels it is the centerpiece and the most difficult part of the WCD recommendation because it calls on diverse actors—with diverse and often conflicting interests—to engage in a political process toward negotiated agreements. She is concerned whether there is sufficient capacity to manage social engagement in communities when governments do engage in bringing communities on board, but is convinced that this represents the biggest opportunity for the transition to any just form of dam-building enterprise.

Ms. Carino explained that she had been deeply disappointed at the World Bank's failure to adopt the social policy underpinnings of equitable and sustainable development of water and energy resources contained in the WCD's strategic priorities. She feels that the Bank's water and resources policy promotes renewed investment in large dams while failing to uphold Indigenous Peoples' rights to free, prior, and informed consent. And while broad community support approximates what Indigenous Peoples call free, prior, and informed consent, it is not what is legally required in terms of Indigenous Peoples' rights. Also, there is the closely related policy principle of making directly affected communities better off, especially those facing involuntary resettlement.

Further, she feels that both the Indigenous Peoples Policy and the Policy on Involuntary Resettlement that resulted from the World Bank's safeguard policy review fail to address the human rights of affected communities. For Ms. Carino, this safeguard policy limitation seriously undermines the World Bank's role in poverty reduction as it pertains to Indigenous Peoples and other project-affected communities. The limitations of a safeguard policies approach became more evident to her in light of the current Asian Development Bank's safeguard policy update, which echoes the Bank's safeguards policies on Indigenous Peoples and involuntary resettlement. Ms. Carino feels that these are outdated in the light of recent developments in the recognition of the rights of Indigenous Peoples.

Ms. Carino observed that this type of challenge also applies to climate change adaptation and mitigation measures, such as reduced emissions from deforestation and degradation. The terrain of hydropower today is no longer just water or power, but is interlinked and interconnected with the biodiversity crisis, the climate crisis, and the development crisis. Addressing these crises will require a much bigger leap, not in our risk taking, but in our creativity to develop investment packages and investment projects that will take on board all of the actors who have a say on these matters. This same discussion is currently taking place about the Climate Investment Funds at the Bank in relation to their investments.

In respect to these issues, Ms. Carino believes that the safeguard policies are insufficient to deliver development, environment, and climate benefits that call for comprehensive rights-based partnerships with Indigenous Peoples in highly innovative and groundbreaking investments. She feels that it is timely for the World Bank to continue its learning on Indigenous Peoples' rights, especially in the light of the recent UN General Assembly adoption of the Declaration on the Rights of Indigenous Peoples.

*Enhancing Development Benefits*
Ms. Carino believes that the WCD's strategic priorities on gaining public acceptance and recognizing entitlements and sharing benefits, while the most challenging, are also those that will deliver on enhanced development benefits from dams. These strategic priorities, when applied alongside comprehensive options assessment and strategic environmental assessment, will ensure that only those dams that pass holistic social, economic, and environmental criteria will be built. Such dams will enjoy stakeholder participation. They will have processes for all relevant parties to negotiate benefits-sharing agreements that are contextually and culturally appropriate, including for project-affected peoples and communities.

Ms. Carino said that she appreciated the exercise that had been conducted the previous day during the Experts' Workshop for discussing a theoretical framework for entitlements and development benefits. She encouraged the group to continue that discussion, because unless we get that analytical framework right, she believes that any number of technical workshops and expertise will be unable to address the critical social dimension, which continues to be the biggest challenge to development today.

Citing a recent assessment of the water and sanitation work under the UN Commission on Sustainable Development that included a review of how far we have gone in terms of integrated water resource management, Ms. Carino observed that it was quite sobering when it was reported that the aspiration and the ambition for most countries to have integrated water resources management as a key tool or instrument in their planning is not yet very far along the road.

The other sobering statement from the review, Ms. Carino suggested, was that while integrated water resources management is a good tool, it does not automatically address social inequalities, gender, or community benefits, unless it is put as a central goal within the management exercise. So, a lot of the tools that we are counting on to help move us along a better road have stayed in a vacuum, or an absence of the necessary social work in order to get us there. Ms. Carino said that, in her conversations with Indigenous Peoples in Nepal, Southeast Asia, and Africa, they continue to tell her that they lack access to information on the various forums and the mechanisms that would allow them to engage with decision makers about dams.

Ms. Carino is worried about this situation, because when the UNEP Dams and Development Project was still in operation, it helped to initiate national multi-stakeholder processes to address issues of dams and development. This mechanism finished in 2006, and there is now no similar mechanism or body to support national multi-stakeholder processes—and this Pilot Initiative for Enhancing and Sharing Benefits will not necessarily fill that role. So she urged the participants to think about how we can fill these gaps, which she believes are the crucial elements to be addressed in this workshop.

**Walter Arensberg** (Chair)
Walter Arensberg, as chairman of the session, briefly summarized the major challenge that Ms. Carino had presented. She had framed the heart of the dams debate as having the issues of equity, justice, and power, and the challenge of establishing decision-making processes that genuinely facilitate inclusiveness. It is one thing to call a meeting and hope that people will attend, another thing to go out into the field and sit down, listen, and facilitate inclusive processes. Ms. Carino has challenged the Bank to take a close look at what it means to go beyond the catch phrases; she pinpointed some things with Safeguards Policies of the World Bank that merit a good look to make sure that they respond to the type

of inclusiveness that addresses Indigenous Peoples' issues, as well as vulnerable peoples of any sort, in a truly effective way. He then introduced the next speaker, Real Courcelles.

**Experience of the Cree with a Hydropower Project**

***Real Courcelles,*** *Senior Advisor, Hydro-Quebec, Canada*

Real Courcelles, senior advisor for Aboriginal Relations to Hydro-Quebec, drew upon his 33 years of experience to share not just an overview of the current Eastmain-1-A/Sarcelle/Rupert Project, but the remarkable transition that Hydro-Quebec has undergone in its relationships with the Cree peoples of northern Quebec.

***Background***

Hydro-Quebec is a state-owned corporation with 36,000 megawatts of installed capacity, 20,000 employees, and gross revenues of $12 billion a year. The Eastmain-1-A/Sarcelle/Rupert Project will add nearly 900 MW of generating capacity by diverting part of the Rupert into the Eastmain River, and augmenting existing power generation facilities on the Eastmain and La-Grande systems. Planning for this project started in 1998. Authorization and the beginning of construction came in 2007, with commissioning scheduled for 2012. According to Mr. Courcelles, it was the period from 1998 until authorization that was most crucial.

About half of Hydro-Quebec's power production is within Eeyou Istchee, "the land of the Cree." An area the size of France, Eeyou Istchee is comprised of nine Cree communities, four inland, and five along the coast of James Bay and Hudson Bay. These communities range in size from 500 to about 3,000 persons. The area also contains about 400 trap lines, each belonging to a family, who are owner-users.

***A New Approach***

Hydro-Quebec has constructed and operated power plants in Eeyou Istchee since the mid-1970s, generally with significant opposition from the Cree communities. In the 1980s and 1990s, there were court battles between the Cree and Hydro-Quebec. These culminated in a legal battle over the Great Whale Project, which never saw the light of day. Then, in the late 1990s, new leaders at Hydro-Quebec put forward a policy: any future project would have to be positive to the local economy, environmentally acceptable according to the principle of sustainable development, and, first and foremost, well-received by the whole community. If these three criteria were not met, a project would not proceed.

Mr. Courcelles described how, from 1998 to 2002, the chief executive officer of Hydro-Quebec and top managers met with the Cree leadership and with the local people in the communities, to explain that Hydro-Quebec was changing its way of doing things, that it wanted them involved as a partner in the project.

Hydro-Quebec had appreciated that, at the end of the day, they wanted the project to be accepted at the community and local level. Six of the Cree communities would be directly affected by Eastmain-1-A/Sarcelle/Rupert. Out of the 400 family trap lines within Eeyou Istchee, 33 would be directly impacted by the project. So the challenge was to integrate the six communities and those 33 families into carrying out the studies, the works, and the operation of the project.

Hydro-Quebec's strategic priority was to gain Cree acceptance of the project before initiating the ESIA.

*The Referendum*
The tribal chiefs decided to hold a referendum on the proposed project. This referendum was conducted by the Cree themselves. In February 2002, each community held their own referendum. The result was a 70 percent vote in favor, with 30 percent against. Through the referendum, the Cree gave their free, prior, and informed consent to the project.

Hydro-Quebec and the Cree then negotiated the Boumhounan Agreement, which differed from previous agreements in that it committed to building the capacity of the communities through a series of specific mechanisms and financing. These addressed benefit-sharing, monitoring, and compensation. Through the Boumhounan Agreement, the Cree are fully and meaningfully involved every step of the way in evaluating the impact of the project and making decisions.

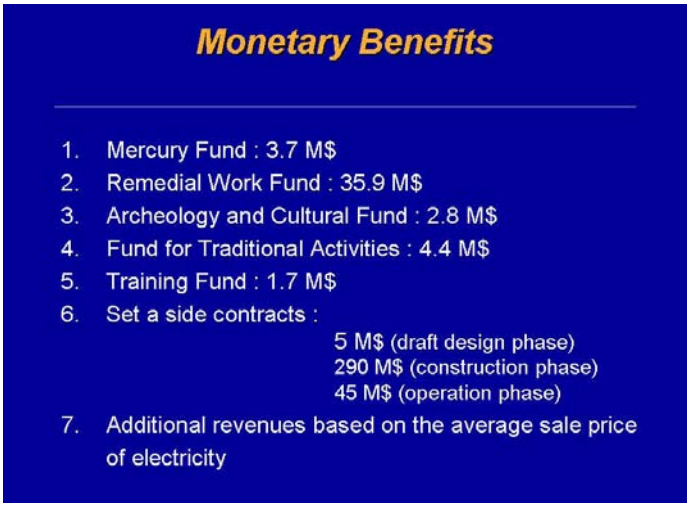
All of this was still at the preliminary phase of the project, prior to starting the environmental and social impact assessment. "Negotiating an agreement before starting the environmental and social impact assessment cleared the slate," said Mr. Courcelles. Hydro-Quebec had never had such an agreement prior to starting the environmental assessment. With 70 percent of the people in favor, all of the chiefs signed the agreement, so everyone was now willing to work for the project. The people were collaborating. Everyone was focused on optimizing the project, identifying impacts, and finding mitigations.

*Working Together*
Hydro-Quebec equipped the six affected communities with offices, and established service-contract agreements with the local communities. The communities appointed representatives to what is called the Boumhounan Committee. This was a joint committee, comprised of eight Cree representatives, one from each of the six Cree communities plus two regional entities; the Cree Trappers' Association; the Cree Regional Authority; and senior representatives of Hydro-Quebec. The mandate of the Boumhounan Committee was to:

1. review the nature and scope of environmental study mandates;
2. meet regularly and provide updates on the project and the studies, so that communities will be better informed throughout the draft design phases; and
3. settle issues related to the field studies—equipment rental rates, security, participation, etc.

At this committee level, the mandates for all the studies and field investigations were distributed for comments prior to being awarded to the consultant. So the Cree had a chance to comment and have their concerns integrated into the studies. The committee met regularly so that the information flowed back and forth with the people. Everyone knew who their representative was on the Boumhounan Committee. If someone had a question, or if someone wanted to work in connection with the project, they could go to this office and their representative would help them.

Small issues, such as the rates for renting of equipment, were significant. For example, it made better sense for the consultant fish biologists to rent boats and motors from local families rather than bring them from Montreal, a thousand kilometers away.




Each of the 33 families that will be directly impacted had a representative, so every time a consultant had to go to the field there was a contact with the community, and consultants went into the field only with a representative of the families. So, all of the studies, whether engineering, environmental, or social, were conducted in collaboration with the people to be directly affected. They were fully aware of what was going on, they could share with the consultant their traditional knowledge, and the consultants could also share with them their scientific knowledge.

Mr. Courcelles stated that it was important to have this agreement prior to starting the environmental impact assessment. Hydro-Quebec wanted to have them fully and meaningfully involved every step of the way, and also in making decisions. In fact, the Cree had options in the design of the project. For example, instead of building a power house at La Sarcelles, they could have pressed for a gate as a control structure. Their participation in the studies also helped to influence the decision on the in-stream flow in the Rupert River, which, after all of the studies, was set at 28 percent rather than 20 percent.

As a result, the 2,000 page Environmental and Social Impact Assessment (ESIA) had been thoroughly reviewed and commented on by the Cree even before it was submitted for formal review. When it came to the public hearing, it was a transparent process. Individuals could make their point in front of the review committee. The Cree had two seats on the review committee. there were also two representatives of the provincial government, and two representatives of the federal government.

Although a series of development funds were established, Mr. Courcelles felt that involving the local people was more valuable for the families immediately affected than all the funds that would be provided to the community as a whole.

From 2005 to 2007, he personally met with each of the 33 families, to have their recommendations about mitigation measures. They participated in these studies, and they knew about the project and its impacts. In fact, the Cree already knew about the impact of hydropower. You had to open the territory, so roads would bring a major impact. Then there were reservoirs, dam impoundments, the mercury issue, and transmission lines. All this was well known. Even the partial diversion of the Rupert River was known, because during Phase 1 and Phase 2 of the La Grande Project the river had been diverted.
So, basically they knew what the big impacts would be on their land and on their trap lines. Hydro-Quebec wanted to know what mitigating measures they would require in order to pursue their traditional activities both during and after construction of the project.

Hydro-Quebec did not rush the process. It took two years. They went over preliminary draft mitigating measures. Once Hydro-Quebec had received authorization to proceed from the provincial and the federal government, a letter signed by the director of Hydro-Quebec went out to each individual family describing the mitigation measures that would be carried out at the expense of Hydro-Quebec.

The Boumhounan Committee, continuing with the same membership, was transformed into a Monitoring Committee. A separate entity, the Niskamoon Corporation, manages all the funds established under the Bouhouman Agreement, as well as for Hydro-Quebec's other projects in Eeyou Istchee. There are five Cree representatives and three Hydro-Quebec representatives. All decisions can be taken by the majority, but so far, since its inception, all decisions have been on a consensus basis.

At the start of construction, in August 2007, 397 Cree community members were working for the project, building dikes and dams, as slashers, laborers, heavy equipment operators, and truck drivers.

***Trust and Continuity***

This new relationship shows what can happen once trust is established. Thinking becomes creative, and this leads to further improvements and optimization of the different aspects of the project, and better acceptance of the project by the local community.

Is this applicable to other countries? Mr. Courcelles acknowledged that it was a long, slow process. They started in 1998, and commissioning will be in 2012—some 14 years. Some countries have urgent needs for electricity or water resources. Also, the Cree have many facilities and institutions—their own school board, their own health board, airline companies, and gasoline companies.

In concluding his presentation, Mr. Courcelles suggested that "Continuity is the name of the game. If you want to get the confidence and the trust of the local people, you've got to be there all the time, and have the same team."

Walter Arensberg. Before opening the floor to discussion, Mr. Arensberg underscored three points from Mr. Courcelles presentation. First, recalling the previous day's discussion about the need to think through issues in detail before a project begins—the policies and programs, what the committees are, how they are organized, who sits on them, and all the nitty-gritty stuff that institution building is about—this case certainly did that. It used high-level contacts at the beginning, and an early referendum. In effect, these were scoping procedures in which you agreed on where you were headed and how it was going to happen. Second, the presentation laid out a list of specific activities—reviewing TORs, permanent offices, rental agreements—that were practical, down-to-earth, and evidence of how to translate our favorite catch-phrase—"public-private partnerships"—into real life. It was not just the government with the private developer, it was the government with the private developer and the community in a genuinely practical role in the project. And finally, there was the statement about "continuity is the name of the game," about how you have to persist, you have be patient, to put this all together.

***Discussion***

A Participant asked: When you do it this way, what is the additional time and cost for Hydro-Quebec? Was it an excessive burden, or, in fact, has it really paid off?

Mr. Courcelles replied that Hydro-Quebec invested millions of dollars in the feasibility phase. "We learned drastically from that experience, and this is when we got on board new leaders with new policies. The result is East Main 1-A Rupert, where the acceptance of the project was the priority." It was in the common interest of Hydro-Quebec and the Cree to have a good relationship not only during the feasibility study and construction, but also after, during operation of the project. "Hydro-Quebec now

regards the Cree as partners and intends to keep them as good partners." So, yes, he is confident that it is worthwhile to take the time to take all these steps.

Another Participant asked about two related issues. First, considering the previous experience of the company during the 1970s and the 1980s, what was the key in recovering trust with the communities? And, what criteria did Hydro-Quebec use to measure acceptance, simply the percentage of supporters? Indigenous Peoples have norms and rules that are not necessarily the conventions of democracy that we are used to. Did they involve women? What were the criteria for voting, and to consider the acceptance as valid?

Mr. Courcelles replied that the turnaround point for Hydro-Quebec was the failure of the Great Whale Project. Also, the energy market in North America was changing, and Hydro-Quebec wanted to be part of that energy market. This all came together with the appointment of new management. "This is important; you have to have the leadership in the corporation to accomplish this." Previously at Hydro-Quebec, an engineer would climb the corporate ladder, and end up as chief executive officer. In the late 1990s, the government of Quebec—Hydro-Quebec's sole shareholder—appointed a chief executive officer from private business to develop Hydro-Quebec as a business. They saw this as key to participating in the North American energy market.

From a business perspective, it was clear that Hydro-Quebec needed local acceptance of the project. This was a major turnaround in Hydro-Quebec. Since then, the three criteria—economic benefit, environmental sustainability, and acceptance by the local community—are at the heart of any project.

About the criteria for measuring the local communities' acceptance, Mr. Courcelles noted that the 70 percent favorable vote in the referendum was sufficient. Without a prior agreement, it is not clear for the local people themselves whether the project will be accepted or not by their community, so they are reluctant to use their traditional knowledge or to be seen as collaborating with Hydro-Quebec. But after the referendum, the Cree said, well, we have 70 percent in favor, all of the chiefs have signed the agreement, so we should all work for the project. Again, this made a huge difference.

Joji Carino commented that from her experience in meetings with communities, they can be very reasonable. When there is a real promise of partnership and development that will go to the communities, they are open. But they can get very stubborn if they feel that they are being taken for a ride, or if they think their rights are being violated. Gaining trust is actually communication, talking things over, coming to agreements. She observed that this is the same with people anywhere, not just for Indigenous Peoples.

Another Participant asked about the timing of the ESIA and the referendum. The referendum was held before starting the environmental impact assessment, when nobody has a clear idea of the impacts of the project. So should not there be a new referendum after the results of the environmental impact assessment is published, when everyone really knows more about what will happen?

In reply, Real Courcelles said "I have lived with having an agreement signed after or at the start of construction, and I have lived this experience, having the agreement signed before the impact assessment and to me, it is a huge difference." The stakeholder already knows about the major impacts. "If, in their world, having a reservoir, a transmission line, a road system doesn't fit with how they see they are going

to use their land in the future, than you don't have to go further ahead. The rest of it is really details." He went on to say, "There is nothing that can mitigate a reservoir, nothing is going to mitigate a transmission line. But let's say that there are fishing sites that are dear to the people, we can help the people, and we do that. If a fishing site would be no longer usable after the diversion of the Rupert River, we could work with them in mitigating to find a way for the family to continue fishing, maybe not in this spot, but to continue fishing."

Mr. Courcelles added that the monitoring aspect of this agreement took about five minutes to negotiate. "But that was not the heart of the negotiations. The heart of the negotiation was how to involve the people, how to have this project accepted by the local people. We put mechanisms and financing in order to achieve that." And, "Monetary compensation was not the biggest issue. On the contrary, all the social aspects, linked to the land, linked to how the family would be able to continue to hunt, trap, and fish during the construction and after the construction of the project… these were the issues that took time to negotiate."

## SESSION 3:
## Benefit-sharing: Literature Review

**Maninder Gill (Chair)**
*Sector Manager, ECSSD*
Maninder Gill, social development sector manager for the World Bank's Europe and Central Asia Region, expressed his pleasure to be "among practitioners and people who are interested in the issue of sustainable hydropower development." Noting the contentious issues of resettlement and Indigenous Peoples that are often involved, he observed that the only way to implement a sustainable hydropower project is to make sure that the social impacts are adequately addressed, that the communities that are affected by it are partners in the development process, and that they become stakeholders who want the project to succeed.

Mr. Gill also noted many hydropower projects have significant environmental impacts, but environmental issues tend to be flagged by someone from outside of the country, such as an international NGO. On the other hand, social issues are taken up within the country, and "absolutely have to be dealt with in this day and age to build large scale hydropower."

Because hydropower can yield significant income, there is an opportunity to allow sharing of benefits with communities. In comparison, an irrigation dam provides direct benefits to the community for irrigation but not much more. However, hydropower can not only supply electric power to the local community, it also generates revenues and resources that can make people equity holders in a project. It offers potential for sharing benefits in different ways.

Mr. Gill cited his own experience more than a decade ago in the Bank's work on the Narmada River in India—a project that displaced more than 100,000 people. It became so contentious that it was difficult to do anything on the ground; the engineers could not go to the site and the project staff could not conduct consultations. Only after the project was completed, and benefits began to flow and be shared with the communities, did faith begin to be established. Today, if you go to the project and see what has happened, it is a best practice model in terms of sharing benefits.

By contrast, the Narmada Sagar, a larger dam just 200 kilometers upstream on the same river, was constructed more recently without much contention. People were excited about the project, they were rooting for it, they were asking when can they move and how can they help? The main determinants were the resources that were brought to the effort and institutional factors: they made the communities a beneficiary of the project and a partner in its progress.

Mr. Gill also noted the dilemmas that practitioners face. We want to do something, but what and how? How do I turn the revenue stream back to help the people? There are places like Laos, where hydropower could be the main driver of economic growth—it could make a big dent on their poverty and economic development. How do you view a dam in that context, for the local community, for an expanded set of stakeholders, and for the country at large?

**Literature Review Presentation:**

***The Literature Review on Enhancing and Sharing Benefits from Hydropower***

***Marielle Rowan,*** *project manager and social sustainability team leader for Mott MacDonald's Energy Unit*

Over the previous six weeks, a team from Mott MacDonald conducted for the World Bank a review of the literature on enhancing and sharing benefits from hydropower. The team reviewed more than 60 documents, and prepared abstracts on each. **Marielle Rowan**, the literature review's manager and social sustainability team leader for Mott MacDonald's Energy Unit, presented an overview of the team's findings. (For the full report, see World Bank. 2009. *Enhancing Development Benefits to Local Communities from Hydropower Projects, A Literature Review.* Washington, DC: World Bank.)

Ms. Rowan reported that the literature review had concentrated on two key questions: What are the past and current contributions to local community and regional development that hydropower projects make in a range of different settings? And what are the constraints to enhancing direct and indirect development benefits in hydropower projects?

***Past and Current Contributions of Hydropower to Local and Regional Development***

When the team looked at the past and current contribution of hydropower to development, they found several main areas to consider: First, economic rents as the main source of benefits. Second, as mentioned previously by several workshop participants, the shift from mitigation and compensation to positive impacts and benefit-sharing for sustainable development. Another driver for hydropower in recent years has been climate change mitigation and adaptation under the Kyoto Protocol, so the third area the team looked at was carbon financing as a source for enhancing benefits. Last, the team reviewed existing case studies with benefit-sharing information.

In terms of **economic rent as the main source of benefits**, Ms. Rowan said that the review team found that a variety of practitioners have looked at monetary benefits and how they can be transferred to local communities. The potential source of monetary benefits is economic rent—the surplus returned over and above the value of the capital, labor, materials and other factors of production employed to exploit a resource. There are several reasons—economic, ethical, and developmental—put forward for why sharing of economic rent is important. The economic rationale is that, as Maninder Gill had just mentioned, hydropower projects can generate large amounts of economic rent, so there is large potential for economic revenue to be shared. The ethical considerations center on the idea that people who sacrifice their access to natural resources should not have to pay the price for other people to get the large majority of the benefits. Because project-affected peoples are giving up their use of resources that are essential for their livelihoods, they should get some of the monetary benefits, not impoverishment. This reflects a modal shift in thinking within development circles. Project-affected peoples should have an opportunity for development, and hydropower projects can act as catalysts for that development.

With economic rent as the main source of monetary benefits, there are a variety of ways to redistribute revenue. The key options discussed in the literature are royalties, as either a fixed percentage of the revenue or per unit of power produced, that can be channeled into specified development funds. Real Courcelles described several such funds. It is also possible for project-affected peoples and local communities to be equity sharers. Other mechanisms include property taxes and preferential rates for water or electricity services.

Ms. Rowan reported that throughout the literature, there seems to be a distinct preference for royalties as a mechanism, although it is highlighted that to prevent inequities and injustices in the sharing, there needs to be guidance on how much those royalties should be and how they should be introduced. Some authors suggest that different rules are needed for mega projects.

Another issue put forward in the economic rent literature is that rent-sharing should not just benefit the neighboring communities or the project-affected people, but also the upstream and downstream communities and the region as a whole.

***The Shift from Mitigation and Compensation to***
***Positive Impacts and Benefit-sharing for Sustainable Development***

The literature also addresses the integration of the economic, environmental, and social pillars of sustainable development. This portion of the literature looks at the continuum of disbenefits toward benefits. Whereas previously the emphasis was on how projects address negative impacts, practitioners now see that safeguards are in place and there is experience in providing compensation and mitigating negative impacts. The literature suggest that projects need to address not just what has gone wrong, but also what can be done better to improve the benefits. The concentration is on looking at development opportunities, and how to maximize the positive impacts.

During the "hiatus," not just the World Bank but many industry players moved away from hydro. But the extractive industry carried on, and has developed knowledge and methodology for involving communities and meeting their needs. There is consensus that lessons can be learned from the extractive industries.

Some of the sustainable hydropower development literature focuses on the benefits of water resources. Particular attention is given to transboundary and international rivers, with the main interest on cooperation. One group of authors looks at a continuum from unilateral efforts to cooperation to coordination to joint action. By working together, it is felt that more benefits can be shared.

A part of the literature looks at micro-hydropower. In several cases, micro-hydropower programs have made significant contributions to developing local technical and managerial capacity. There are examples of micro hydropower working well that is being scaled up for wider use and greater impact.

***Carbon Financing as a Source for Enhancing Benefits.***

Within the carbon finance literature, there is very little on the mechanisms to enhance community benefits, but there are two main opportunities. The first is to apply the carbon finance mechanisms themselves and the second is to use the revenue that they generate. In terms of methodologies, there are about ten different standards. Two in particular, the World Wildlife Fund Gold Standard and the Social Carbon Methodology, are helpful for looking at additionality and enhancing benefits.

In terms of the use of carbon savings that hydropower projects generate, there are experiences at the global, national, and project level where carbon has been used to contribute to project benefits. At the national level for instance, China has a carbon fund that is accessible to Chinese contractors to develop CDM projects, and explicitly supports capacity building.

*Existing Case Studies with Benefit-sharing Information*

Regarding **existing case studies**: What do we know and what do we not know? Ms. Rowan reported that there are not many case studies that focus on benefit transfer mechanisms or benefits. There are some short case studies on monetary benefits but little on non-monetary benefits. There are some detailed examples of measuring rent in Canada and in Lesotho. There are short case studies on financing hydropower. The International Energy Agency has produced sixty "good practice" studies. Fourteen of them focus on benefits, but most of them are related to technical aspects, and provide less in terms of social or environmental benefits. Also, there are the World Commission on Dams case studies that Peter Leonard mentioned, and there are 5-10 page micro hydro studies for Sri Lanka, Nepal, Peru, Zimbabwe, and Mozambique that were financed by the World Bank in 2000. There is also some useful GTZ work on Tibet.

*Constraints to Enhancing Benefits in Hydropower Projects*

Ms. Rowan reported that the team found that the major constraint is the gap in knowledge on how much to share. How do we compare sharing in one area to sharing in another region? Another constraint is that measuring economic rent itself is a challenge.

In addition, there are political dimensions to benefit-sharing, because of conflicting interests, goals, and stakeholder values. This was very clear yesterday, during our last session, when we all took on roles of different stakeholders. The absorptive capacity of recipients responsible for managing development funds routinely comes up as a constraint.

Finally, there is the risk profile: hydropower has risks because of the high capital expense at the beginning and the uncertainties around the final actual cost, as well as the uncertainty of hydrology, and even of purchase agreements.

*Summary of Key Findings*

Ms. Rowan reported that the key finding of the literature review was that making benefit-sharing operational is recognized as being important, but there is little practical information. As Daryl Field had quoted, "It is striking when reading the literature that although references to benefit-sharing are numerous, little substance is discernible beyond the catch-phrase level."

In terms of **information about benefits-sharing mechanisms**, we know more about monetary-sharing mechanisms than about non-monetary mechanisms. There is more on developed countries than on developing countries, but there are a fair number of countries for which information is available.

Legislation as a precondition for benefit-sharing: Most of the literature suggests that legislation helps to insure benefit-sharing, but there are issues. Is the legislation itself adequate? And if it is, can it be used as an excuse not to do more benefit-sharing? Legislation may be an impediment or an enabler.

Additionality: It is clear from the literature that looking at benefits leads to additional funding. It can happen through project sharing, by partnering, or it can happen by saving costs related to time and expense, and building trust.

Resettlement as a development opportunity: The literature clearly recognizes that resettlement can be a development opportunity, but monitoring would show that some excellent resettlement plans may not be

implemented as such. Resettlement can provide many benefits by understanding and discussing what peoples' actual needs are, and addressing an approach that is development-centered and improves individual and community resilience.

Monitoring and Evaluation of benefits-sharing is very limited. We do not know what is being collected on benefit-sharing or how much is happening. There are no common indicators that allow us to look systematically at what works, and why across projects.

Last, the value of a **holistic approach** continues to be reinforced. In benefits-sharing, there is an emphasis on planning early and integrating it into the design. Everyone seems to agree that if you look at benefits sharing and at a project holistically, things will be done better. How to do that, however, is not as clear.

***Reflections on the Meeting of Experts***

Ms. Rowan also made some observations as a means of reporting on the meeting of experts, which was held the previous day. Out of many stimulating exchanges and discussions, she drew several points: First, there was recognition that useful project-specific information on benefits-sharing is generally outside of the public domain. One of the reasons that this is not publicized is the confidentiality related to economic rent and the revenue amounts that get shared, and how they get shared. Benefit-sharing does not seem to be an area that is monitored either systematically or otherwise. Yet we know that there are lots of useful project experiences with benefit-sharing that are worthy of review and learning.

She found that there was consensus in the meeting that information on benefits-sharing needs to be disseminated more widely within the industry. If there is more information about how to do things, benefits sharing may happen more regularly. However, in the journals that influence most hydropower technical specialists, there is little written about benefit-sharing. Getting experience and other information about benefit-sharing out to those in the wider industry is necessary.

The meeting of experts discussed the importance of the tripartite relationship among the sponsor, the government, and the local communities. The sensitivities around the relationships, how benefit-sharing gets into the middle of those relationships, and what linkages are needed were debated. The group believed that there needs to be more information on what those relationships should be, and on what other role players have to offer to strengthen the relationships among those three important players. For instance, the role of the World Bank was briefly explored.

Ms. Rowan emphasized that practitioners need to build benefit-sharing into project objectives. She referenced Real Courcelles' point that it makes a difference to do benefit-sharing from the beginning and to have it as an identified objective. Rules for benefit-sharing would help. Not everyone is as open to benefit-sharing or sees the value of it in the same way, but if there are rules, they will be followed. If there is policy and guidance, it will get done.

She also highlighted that flexibility is essential in the implementation of benefit-sharing and that the portfolio approach can support that. To be flexible, a variety of approaches and menu of options is helpful. And within the project itself there needs to be flexibility in the way benefits-sharing is both planned and managed, so that monitoring and evaluation can improve practice. The case studies have received a lot of interest because they can help contribute to knowledge about various approaches and options.

***Discussion***

Glenn Morgan, noting that in his experience the private sector still has a long way to go on the acceptance of some of these principles and ideas, asked Ms. Rowan to comment in more detail on how the literature is distributed across the perspectives of various stakeholders—civil society, government, the private sector, and financial institutions.

Marielle Rowan responded by stating that the main stakeholders discussed in the literature are the project-affected peoples. There is a fair amount of information related to resettlement for displaced peoples, but livelihood restoration is a weak link. Most of the benefits-sharing information still focuses on mitigation. There is attention to safeguards policies and the lenders' role is highlighted through their policies, which are providing guidance. Ms. Rowan said that this is why she believes that rules and guidance on benefits-sharing would be helpful. It seems that industry players have found that rules and guidance on mitigation are useful, and now they would like some rules and guidance on enhancement and benefit-sharing. Also, the literature focuses on benefits and impacts on environmental and social issues, and not about the relations among the different stakeholder groups.

Another Participant commented on the gap in knowledge on how much to share. Ms. Rowan observed that, because every situation is different, it could be hard to make guidelines. Also, in practice, it seems to be about who has more bargaining power, so perhaps the topic needs to be examined from that perspective rather than as specific guidelines on how much to share.

Maninder Gill noted that a concern often heard from private sector developers and from governments is that they do not know where this is going to end—what is the cap? Guidelines would be helpful, because we hear time and again, "Let's try to get it done without talking about these issues; if we get stuck in terms of opposition, okay, then let's open up." Such an approach does not help either side.

Marielle Rowan: With regards to equity, it may depend on where the project is located. If the project is transboundary, equity is an issue among the countries. In other projects, the equity issues may be among communities. If some local communities are getting royalties, what does that mean for the downstream and upstream or surrounding communities? There can be equity issues within the basin catchment area.

With regard to guidance on how much to share, you have to look at the value of a royalty for a specific area. In rent sharing, the literature showed that even sharing a small amount can have significant development impact. For example, roads produce development benefits and usually they are part of a project. Larry Haas mentioned the figure of $800,000 for roads connected to a project in Vietnam. That amount can do a lot for development in a place like Vietnam.

The question of who has power in terms of the equity sharing often depends on who is at the table. Who is making the decisions? How are the decisions about what gets shared being made? It's not only a question of how much to share, but also how the decisions about how much to share are made. Legislation provides some guidelines in terms of how much to share. But there are cases where money is not going to the local communities despite the legislation.

Daryl Fields, commenting on that point, suggested that there is a gap in the literature, a lack of knowledge of what the actual costs are. Consequently there is a fear that these costs are perhaps much

higher than they actually are. In some of her own previous work on reauthorization of hydropower plants, they had a notional budget in terms of lost power, but the actual result was that in 90 percent of the consensus agreements the costs came in at less than a quarter of what they had expected. Ms. Fields agrees that it can be tricky to say we are going to allocate X percent of the rent, but she thinks that there is also fear or lack of knowledge of what this is going to actually cost, relative to what the needs are in the communities.

Robert Lanari mentioned that three years ago an agreement was signed between the government of Quebec and the Inuit. For any future hydro project, the Inuit will get 1.25 percent of the revenue. Without knowing what the projects are, it has been set in the agreement. But how this is going to be distributed afterwards is still a question.

Maninder Gill suggested that sometimes we forget that our budgets are extremely important to us and we do not think of the importance of very mundane and bureaucratic concepts on the other side. When we were working on Nam Theun 2, the cost of mitigating downstream was tremendously important to the private sector. We were supporting some studies and would have some answers only after several years, but they wanted some certainty about cost. It is hard to say that we do not really know how much this is going to cost, but we are doing some studies so that we can know in a couple of years.

## SESSION 4:
## Enhancing Development Benefits to Local Communities: Emerging Practices

**Malcolm Cosgrove-Davies (Chair)**
Senior Energy Specialist, AFTEG

Before introducing the session's speakers, **Malcolm Cosgrove-Davies** offered some observations on the particular challenges faced in developing hydropower projects in Africa. He acknowledged that "We all here agree that benefit-sharing is a critical component of making hydropower successful. But having said that, benefit-sharing is only one of the many elements that must be taken into account—as the next set of presentations are sure to demonstrate."

Mr. Cosgrove-Davies briefly noted some of the constraints faced in developing hydropower projects in Africa. The first of these is time. Uganda is in a very difficult situation because the initial Bujugali project did not proceed, and they are paying a tremendous amount of money for the thermal power that had to be put in place until Bujugali is completed and commissioned. Money is another significant issue. Benefit-sharing is important, but in some countries the tariffs are extremely high, and suggesting to the government that they provide a little bit for anything additional is a difficult sell. Capacity, at both the government and beneficiary levels, is another significant issue that has to be taken into account. The level of capacity that exists in the Cree Nation (Canada) is probably above that of some African governments, much less of the villages or local communities. These are all constraints that have to be taken into account as we move forward trying to make benefits-sharing work.

**Emerging Practices in Latin America: Colombia**
***Ana Maria Arias Loaiza and Claudia Alvarez Tobon,*** *ISAGEN*
In their joint presentation, **Ana Maria Arias Loaiza** and **Claudia Alvarez Tobon** described the legal environmental context for power generation in Colombia, and reviewed the company's (ISAGEN) efforts to share benefits while fulfilling environmental and social requirements.

***ISAGEN***
ISAGEN is Colombia's third largest power generator, providing approximately 17 percent of the national grid's capacity from four hydropower plants and one thermal plant. It is a mixed public utility company. There are 72,000 shareholders, with the government the 58 percent majority shareholder. ISAGEN has 513 employees, 192 large customers, and more than 1,500 suppliers. The company manages nearly 10,000 hectares of forest. Most of their power plants and land are in impoverished communities, and in areas affected by armed agents operating outside the law.

***Legal Context for Power Generation in Colombia***
Ms. Loaiza and Ms. Tobon reviewed the laws that regulate the electric power sector, since these laws also address environmental issues and benefits for communities.

Law 56 of 1981 covers public works for power generation, water supply and irrigation systems, and regulates the expropriation and rights for property affected by such works. Public utilities can obtain land either by compensating the local communities, or the families can be relocated to places with comparable

conditions. The law also specifies that 4 percent of gross sales is to be invested in rural electrification and reforestation projects.

Law 142 of 1994 (The Public Service Law) also governs public utilities, and Law 143 of 1994 (the Electricity Law) created the Ministry of Energy and Mines (MEM). Before these laws, a company could be a generator, transmitter, and distributor; but with these laws the government has unbundled these activities to different companies, and encouraged the entrance of foreign investors into the electricity sector. ISAGEN is a generator, selling its electricity to commercial clients.

There are three different funds and programs that support rural electrification in Colombia, each established at a different time with different purposes, and all administered by the Ministry of Mines and Energy.

- The Fund for the Electrification of Non-interconnected Zones (FAZNI) was established in 2000 to assist isolated regions in the zones outside the grid. FAZNI supports both the expansion of the grid and off-grid solutions.
- In 2003, the Rural Electrification Fund (FAER) was established. Similar to FAZNI, it subsidizes investment in rural areas of the grid.
- Electrification projects also receive support from PRONE, the Program for Network Normalization, which draws its resources from National Development Plan funds.

Law 99 of 1993 (The Environmental Law) created the Ministry of Environment, Housing and Territorial Development and established the National Environmental System, or SINA (its acronym in Spanish). By defining responsibilities between regional and national institutions, SINA resolved one of the main problems in Colombia's public environmental management. Under SINA, the Ministry of Environment oversees the regional autonomous corporations, other urban center authorities, and finally the departments and municipalities.

Since the approval of the Environmental Law (Law 99 of 1993) and Presidential Decree 1220 of 2005 on environmental licensing, environmental impact assessments have become a central part of the project cycle. In addition, the Environmental Law prescribes that companies that generate electricity should pay fees to municipalities and to regional autonomous corporations. Municipalities use these funds to develop urban and rural water supply, solid waste management, sewage systems, and waste water treatment plants. Regional autonomous corporations are responsible for environmental protection and management of the watersheds above the hydropower plant, and funds can be used for erosion control, forest conservation and reforestation, efficient use of natural resources, and for environmental education. Since 1994, ISAGEN has paid more than $123 million for these transfers, including $18 million in 2007.

| | | |
|---|---|---|
| Hydropower Generation<br>6% of gross sales | 3% to regional autonomous corporations | |
| | 3% to municipalities | 1.5% within the basin<br>1.5% within the reservoir |
| Thermal Generation<br>4% of gross sales | 2.5% to regional autonomous corporations | |
| | 1.5% to municipalities | |

*Evolution of the Company's Environmental Management Program*
Within ISAGEN, environmental management has evolved over time. This can be looked at in three periods: 1984–91, 1992–2000, and 2000–05. In 1984, when the company was simply called ISA, it established a community relations office. This office provided "good neighbors" services such as medical care, ambulance, telephone service, materials for construction, road maintenance, and loans of equipment for road repair. It was created as a window to address complaints and requests, and the first elements of social management were formulated. In 1991, the new Constitution of Colombia was approved.

In the second period, from 1992–2000, there were advances in environmental regulations. The Environmental Law, Law 99 of 1993, and the Electricity Law, Law 143 of 1994, were approved. A methodology for community participation was established. But social management at the power plants was reactive, waiting for complaints or requests from the communities, and the pressure of armed agents operating outside the law was increasing.

In the more recent period, from 2000–05, there have been severe problems with armed agents operating outside the law. During this period there was reflection about the "window" management approach. The company decided to be more proactive in working with communities, and developed new policies and programs in order to enhance participation and strengthen capacity within the communities.

The policy picture now is that ISAGEN applies to its environmental management a long-term perspective that aims for a better future for the communities and for their environment, not only as part of its commitment to sustainable development, but as a core strategy to keep its power generation and commercialization activities viable.

*Environmental Management Programs: Mandated and Voluntary*
Ms. Loaiza and Ms. Tobon also described the environmental management programs of the company. Under the Environmental Law, environmental management plans (EMPs) are mandated to address the impacts from construction or operation of power plants. ISAGEN evaluates, prevents, minimizes, corrects, mitigates, or compensates for negative impacts and enhances positive impacts. It also informs the appropriate authorities about the impacts, and works to fulfill any legal requirements.

Beyond meeting its legal requirements, ISAGEN conducts voluntary investment programs to educate communities to be the architects of their own development processes through participation, training, and co-management.

There are four social programs:

- There is a Social Investment Program of participatory projects for education of communities within the influence area of the power plants. These are projects for productivity, education, health, and culture-recreation-sports that aim to enable communities to self-manage their own sustainable development.
- Peace Initiatives support actions through local institutions to establish the economic, social, and cultural foundations for building peace and providing humanitarian support to victims of the armed conflict. These programs include: education, civil initiatives, governmental initiatives, and humanitarian assistance.

- Good Neighbor Actions are developed by ISAGEN to establish and maintain good relations with the communities near the power plants. These programs support creation of local employment, response to medical emergencies and ambulance services, telephone service, and lending of road repair equipment.
- Institutional Cooperation Programs support initiatives designed by institutions such as private companies and the Catholic Church that operate the power plants.

On the environmental side,

- A Conservation and Restoration of Watersheds Program works through agreements with other institutions interested in improving environmental conditions of ISAGEN's power plants and watersheds, particularly through reforestation, agroforestry, and basic rural sanitation.
- Actions for Conservation and Sustainable Use of Natural Resources are supported by the company to preserve the resources present in watersheds of the power plants and to stimulate community initiatives, for example through utilization of forest products, bee-keeping, and support to wildlife rehabilitation centers.
- Environmental Education and Sharing of Scientific Information includes working with the schools in the communities and with national academic institutions to support school environmental programs, and to disseminate environmental information from research related to environmental assessments and planning work.
- Basic and Applied Research helps to solve questions associated with the impacts of ISAGEN's power plants and better understand the natural resources and ecology of its reservoirs.

In 2007, ISAGEN contributed more than $2.2 million to social investment programs, and nearly $500,000 to environmental programs

ISAGEN's commitment to environmental and social management for the future is based on several key principles:

- The company is viable only if the country is viable, therefore corporate social responsibility is fundamental;
- Corporate social responsibility is more than legal obligations; and
- Collaboration between the company and stakeholders' groups is essential.

Ms. Loaiza and Ms. Tobon summarized the attitude of ISASGEN as, "We must be citizens responsible for the planet through collaborative networks that allow union and interchange of efforts between the public and private policies."

**Emerging Practices in Asia: Vietnam**

***Lawrence Haas,*** *Consultant*

Larry Haas is currently team leader for an ADB-financed technical assistance (TA) project that is preparing comprehensive draft legislation for benefit-sharing on existing and new hydropower projects in Vietnam. The initiative started as an ADB TA in 2006 to prepare guidelines to orient and familiarize the new Electricity Regulatory Authority in Vietnam with the theme of benefit-sharing. The guidelines that were developed have now become a Draft Decree and Inter-Ministry Circular, the final steps before being

passed as legislation. In August, pilot testing of the guidelines will begin. Mr. Haas' presentation summarized how the project reached this point, and issues encountered along the way.

***The Vietnamese Context***

For context, Mr. Haas briefly described Vietnam's situation. A country of 80 million people, it is experiencing exceptionally rapid electricity growth—10 percent annually. It has become one of the world's major hydropower countries, with thirty large projects already in place and another sixty identified. Of those sixty sites, 13,000 megawatts are to be developed by 2020, and about $2 billion a year must be mobilized for these investments. The critical issue is that many of the hydro sites are coincident with Indigenous and impoverished people—some of the poorest in the country. Ethnic minorities (Indigenous Peoples) enjoy special constitutional protections, although translating those protections into practice is a concern.

Mr. Haas also noted that Vietnam has progressive legislation in its water resources and environment sector, but the social policy in regard to hydropower focuses on resettlement only, and it is time-limited. "If they move ahead with benefit-sharing, this will be a significant increment in their policies in that area," Mr. Haas said.

Vietnam, like many other countries, is undergoing power sector reform. The country is making a staged transition toward competitive retail power markets. They are in the process of equitizing all of the Electricity of Vietnam (EVN) power stations and inviting independent power producers (IPPs) to invest. Toward the end of 2009, possibly slipping to 2010, the new rules will come into effect for the competitive generation markets. "There is a train to be caught here," Mr. Haas said. The Electricity Regulatory Agency (ERA) would like to get the revenue sharing component into the legislation at that time. "It is difficult to run after the train once it has left the station." They have set up a formula for transfer of money from the market transactions to a central reserve fund, which will be held by the ERA. From there, it will be distributed according to project-specific funds.

***From TA to Legislation***

How did they get to this point? It began as a normal ADB technical assistance for policy review. The team reviewed existing legislation, and then prepared the draft legislation, using a collaborative approach. Since the Vietnamese government likes to test things, they have also prepared a test run on a project that has just become operational.

In terms of the policy review, they looked at all of the national laws—forestry sector, RAMSAR, the Mekong Agreement, and power legislation. They found that benefit-sharing principles were already incorporated into some laws, so the issue was to bring these principles into the power sector. There was a choice between royalties and revenue sharing, but from the literature review they concluded that revenue sharing was the better option.

Drafting of the legislation was a participatory process, and the key was to get the provinces and the local communities involved. As Mr. Haas observed, Vietnam's fifty-nine provinces have responsibility both for matters of local and provincial development and for implementation of all national laws. So it was very important to get them behind this policy.

Borrowing from the World Commission on Dams approach, the team established a shared knowledge base while the elements of the decree were being drafted. Then they went to the field to see projects in various stages of development. ADB is focusing on the Gia-Thu Bon Basin in the Central Highlands, supporting integrated water resource management and working toward basin planning. The Song Bung 4 Project had just been approved by ADB's board, so the A'Vuong Project, which feeds into Song Bung 4, was selected as the pilot. They also reviewed projects that have been in operation for 5–6 years. This proved to be helpful when they went to the steering committee, where they were asked, "Why do we need this? This has already been done." But they had the evidence to show that was not the case.

There was a multi-agency steering committee, as well as TA working groups, a provincial-level pilot project consultation group, and the national-level consultation group. To make the case, they had to generate a shared vision. For the government, it was important to demonstrate that this was in line with their policies. They have a legal definition of sustainability that includes present and future generations and balanced social economic growth and environmental protection. This made benefit-sharing important, especially since livelihoods in these areas are ecosystem-based.

***Key Issues and Results to Date***

Mr. Haas team chose to work with existing institutions rather than try to create new ones. They recognized early on that community voices were important in deciding how to develop the delivery mechanisms. Mr. Haas mentioned several of the key issues that were raised and had to be addressed during the development of the draft legislation. These included:

- that benefits sharing is part of the risk reduction strategy—the objective isn't to delay hydropower development, but to increase the quality and attractiveness for financing for hydropower development;
- that there is international support for this;
- that this is a long-term revenue sharing arrangement between the consumers and the local people, linked through revenue sharing; and
- that this is about longer term arrangements financed under the tariffs, not compensation and resettlement that must come from the capital budget of the project.

Also, "Who should participate?" was a major issue, requiring considerable debate. Many wanted to focus on the group to be affected by settlement relocation, but they eventually got agreement to encompass all of the communities in the watershed. Finally, Mr. Haas said that there were concerns about the competitiveness of hydropower. Using avoided-cost formulations, they were able to show that relative to other forms of generation, they could afford to apply 7.7 percent of the tariff.

The outcome of all this is that there is a project revenue-sharing fund, provincially based with a Revenue Sharing Council. Grant administration procedures have also been established, so that people can apply for the funds. The draft legislation is now in a decree, with inter- Ministry Circular. Many of the subjects that we have been discussing these past two days were addressed in the laws.

The pilot project will start shortly, in collaboration with WWF and the ADB Trust Fund. The first objectives of the $300,000 pilot are to field-test the guidelines and prepare the capacity building tools to scale up and roll out the program nationally when the legislation is approved.

Mr. Haas summarized the lessons that his team has learned. First, they found that a partnership approach with multiple stakeholders was essential. Pressure from the provinces was key to getting the national groups to act. Also, consultation with the communities was essential for defining the types of mechanisms that they want to see—and since it is a grant application procedure with a menu of options, they will have choices. Finally, transparency and accountability were key.

In closing, Mr. Haas mentioned the challenges they face in moving ahead with the pilot. First is to see that the elements of the decree are not diluted as they go through the process. The percentage of tariffs will be an issue. Also, to assure that it is not a "bad pilot," they have to put in some safeguards. And finally, in parallel to the pilot testing, funds are being raised for the capacity building exercises that will help the guidelines go nationwide when they come into law.

**Lao P.D.R., Approaches to Community Risk Mitigation and Enhancement of Benefits in Nam Theun 2**

***Glenn Morgan,*** *Lead Environmental Specialist, LCSEN*

In introducing his presentation about the Laos Nam Theun 2 Hydropower Project, **Glenn Morgan** made several disclaimers: First, he said, it should be kept in mind that many people have been involved—a large team of dedicated, professional Bank staff, colleagues at the Asian Development Bank, partners with the company, and others. Many of the people in this meeting, and many others have worked on this project. So this presentation is an amalgamation of many years of many people's experience. Also, we should be careful about using this—or any—project as a model. There are things from Nam Theun 2 to learn from, and there are things to be critical of. Finally, this is a very complex project. The benefit-sharing aspects are just one element of a complex social, economic, and political context. So this presentation covers just a small slice of what Nam Theun 2 is all about.

***The Project***

Mr. Morgan described the project's background and features. Nam Theun 2 is a $1.25 billion hydropower project in the Lao Peoples' Democratic Republic. It is designed to generate power for sale to Thailand within a public-private partnership framework. The goal of the project is to generate revenues for the government of Lao, so that they can use these funds for social, economic, and environmental development programs. This is something we have to remember in these projects: the objective is to generate revenue, and then to use the revenue. Getting resettlement right and distributing some of the benefits to affected people are not enough to justify Bank involvement. If we don't get the use of the revenues, and we don't generate those broader, deeper benefits, then we have to think about our role.

The project itself involves construction of a 38-meter-high dam that will create a reservoir of about 450 square kilometers surface area, and about 1,100 megawatts of generating capacity. The associated civil works include a series of saddle dams around the reservoir, a headrace channel, downstream regulating pond, 27-kilometer conveyance channel, access roads, 165 kilometers of transmission lines, work camps—all of the things that we would normally expect to see in a hydropower project of this type.

***Issues***

The reservoir is set on the Nakai Plateau. The water will be brought over an escarpment, down to the powerhouse on the plains below, where the power is generated. The power will be evacuated through transmission lines to Thailand, and within the country. The project involves a large inter-basin transfer of water.

Nam Theun 2 happens to be in an area of high biodiversity value. The watershed area comprises the Nakai-Nam Theun National Biodiversity Conservation Area. Downstream is the Khammouane Limestone National Protected Area. To the south is the Hin Nam No Biodiversity Conservation Area. There is a connecting corridor to Phou Hin Poun Biodiversity Conservation Area, and an additional national biodiversity protected area to the north. So it is a rich region from a biological point of view, and rich socially and culturally.

This complex social and political environment spans three provinces and multiple districts. Almost 300 villages are in some way impacted or involved with the project.

The project involves the direct resettlement of about 6,000 people on the Nakai Plateau -- 1128 households in 17 villages. Downstream of the powerhouse, there are up to 70,000 people in more than 220 villages who would be affected by the changes in quantity and quality of the water that will flow into the receiving river, the Xe Bang Fei.

In the watershed catchment, there are about 5,800 indigenous Ethnic Minorities. These are people who would be indirectly affected. They don't need to be resettled but they clearly have a very strong interest in the performance of the project. These are among the poorest people in Laos -- among the poorest of the poor in Southeast Asia. Most of them are Ethnic Minorities (Indigenous Peoples) living traditional subsistence lifestyles. There is the added social context of high population growth rates in this area. What are the problems that we're going to face in ten or fifteen years with population growth? We'll just have to wait and see.

In addition, with 6-8,000 new workers coming into the area to work on the project, there are potential issues related to public health, spontaneous development, and construction of work camps.

***Strategy***

Mr. Morgan explained that the principal strategies for providing benefits under the project were designed through the lens of the Bank's safeguard policies, and specifically the issue of resettlement of people. So there is the resettlement program for the Nakai Plateau and all of the downstream areas affected by the construction. There are livelihood restoration and enhancement programs for those who are resettled, and also for those who would be affected by project operations.

The developer is providing a project to support technical assistance for all aspects of the project, including the physical establishment of the resettlement sites, research on crops and agricultural practices, commodity marketing, social organization, etc. Also, there is a program for integrated rural development in those downstream areas that will be affected by the transfer of the water. In the watershed, the main strategy for benefits is through an Integrated Conservation and Development Program. There is also the Nam Theun Environment and Social Development Project, a parallel Bank-financed instrument. So, there is the Nam Theun 2 Project itself, and a parallel World Bank-financed

rural development activity to fill in some of the gaps where clearly the developers don't have the responsibility to do everything.

So, what are the main benefits expected? First, there is a high expectation for improving living conditions on the plateau for the resettled villages. There is a commitment to raise household income levels not just to where they were when the project started, but to reach the national poverty threshold within nine years. This is an important commitment. It's one of the outcomes defined in the concession agreement. They are stretching, going beyond just replacing assets and lost income.

There would also be improved access to the regional infrastructure, particularly roads.

Nearly $17 million from the project will support the rural development program downstream of the powerhouse. Initially, the developers were offering $1–$1.5 million for a monitoring program in the downstream area. This concept of a rural development program downstream was the result of a lot of difficult negotiation among the Bank, the government, and the project developer.

The project is already providing employment for 3–4,000 workers at fourteen major construction sites. This is great for local employment during the 5-year construction period.

One million dollars a year will be allocated from project revenues to management of the Nakai-Nam Theun NPA. This is a significant contribution not only to conservation but also to the development of the communities who live within the protected area.

In the national protected area, integrated conservation development will test alternative land uses to try to stabilize shifting agriculture and also provide more secure tenure. The people living in the protected area have long been at risk that at any time the government could decide to move them out of that area or force them to relocate. So the watershed protection program will address tenure security. The main elements of the plateau livelihood programs are community forestry, reservoir fisheries, household gardens, livestock husbandry, and small-scale irrigated rice farming. In the downstream areas, the livelihood programs involve alternative livelihoods from a menu of different integrated farm models, mostly based on conventional agricultural production and aquaculture. There will be support for village flood protection works as well as rehabilitation of some of the minor irrigation works that are downstream of the powerhouse.

A host of new community institutions need to be established to manage all of these programs. There is a Resettlement Management Unit under the central government, a district resettlement working group, an Environmental Monitoring Unit, Village Development Committee, Village Forestry Association, village forest committees, Watershed Management Protection Authority (WMPA), Reservoir Management Committee, and village fisheries committees. This new and greatly expanded institutional framework reflects the anticipated demands of the newly complicated social and development context, when suddenly there is a large reservoir, fisheries resources, community forestry, access to traditional areas that were used for hunting, and the use of new resources. It is complicated, and it will take time to develop.

*Challenges to Benefits Sharing*

Mr. Morgan described several challenges in formulating the benefits-sharing programs. First, as he had mentioned before, the conceptual foundation of this benefits program was the Bank's safeguard policies, which is an incomplete framework on which to address this complex set of issues. The government of Laos had no legal or institutional framework to work in. So the program was developed incrementally as they went along.

Another challenge was that many of the impacts of the project, such as downstream impacts on fisheries, will not be known for at least several years—after construction is complete and operation has begun. So we don't know yet whether the compensation or livelihoods programs are appropriately designed to address those potential impacts.

The flip side is that many benefits won't be known for some years. For example, the reservoir's fisheries are a main part of the benefits package for the resettled communities, but we won't know for at least 4–5 years what the real productivity of the reservoir is going to be.

So, there are questions about the sustainability of these livelihood programs. Because of the timeframe and the changes underway, this creates uncertainty. This must be coupled with the issue of the effectiveness of the new institutions. How are the various committees going to work? Are they sustainable? Will they really be able to address the livelihoods benefits-sharing? Will they be able to create the management frameworks that are needed?

Finally, there is the use of project revenues. This was the main justification for the project, but the project has not yet generated a dollar of revenue. Nothing has flowed to the government, and the government has not created any new environmental or social programs—which was the basis for the Bank's participation in this project. So, we won't know for many years whether those revenues are being used in the way that we originally envisioned.

*Elements of Good Practice*

Mr. Morgan reiterated that he didn't want to hold Nam Theun 2 up as a model, but he thinks that it demonstrates some elements of good practice that can be applied to other projects.

First, the approach to the definition of the project's area of impact included the downstream affected areas, *a* comprehensive approach that was appropriate in this case. We look at it now and say, "Well obviously that is the way that we should deal with that." But over the ten-year preparation period of the project, there were many arguments about which areas will be affected and who would be eligible for benefits and livelihoods support. The end result is a comprehensive regional approach.

Another good practice in the project was the clear articulation of roles, accountabilities, standards, and budget commitments within the Concession Agreement. These defined the responsibilities among the government, the project developer, and the financiers of the project. These specific commitments made among all of the parties provided a good foundation on which to move forward.

Third, the resettlement programs were designed as development interventions as opposed to simple compensation programs.

Also, there was time to develop pilot villages to test assumptions and technical options for the resettlement. Many lessons came out of those pilot villages, which were than incorporated into the final design.

In addition, there is a lot of allocation of contingency funding for the project. This is in the form of project insurance, letters of credit, cost overrun allowances, and allowances for unexpected impacts. These create a financial safety net in the event that some of these programs don't work. It also gives some flexibility to introduce new things, or if some programs cost more than was anticipated, there is a financial resource there.

There is a commitment to outcomes, not just to inputs of resettlement program.

There was strong multi-stakeholder consultation in the preparation and a continuous monitoring program is in place. This monitoring means that the programs can be adapted to events. All of this has been facilitated by the fact that there is strong willingness on the part of the developer to mobilize technical assistance in all these different, complex areas, rather than simply rely on government.

As final thoughts, Mr. Morgan returned to his first point about the project development objective, which is to generate government revenues from the sale of electricity to fund priority poverty alleviation programs. In his view, the real success of Nam Theun 2 will be known only when revenues start to flow and we see how the government uses those revenues. Successful implementation of the resettlement program should be the minimum expected. "If we can't get that right, we shouldn't be in this business. What we have described as livelihoods resettlement is in my view the minimum, the real test of the project is what is done with the revenues to develop future programs."

***Discussion***

A **Participant** asked Mr. Morgan about the new institutions. Who do they report to? How are they financed, by the government or private entity? And what is the time frame for their operation? Are they all integrated into the monitoring program that will be put in place?

**Glenn Morgan** replied that who reports to whom was spelled out in the concession agreement. The Nam Theun Power Corporation (NTPC), the developer, has a well-defined corporate structure, and the government has a well-defined reporting structure. The working relationships between NTPC and the government are also defined. As you can imagine though, there is sensitivity on this. The developer doesn't always want the government there. On some things, the government doesn't have the capacity. But the reporting relationships are all well laid out.

Regarding revenue management, Mr. Morgan said that this was the subject of an additional program during project design. There were detailed evaluations of the government's accounting procedures, their resource flows, and how they use the money. A structure was established to manage income from the project. This was very sensitive, and there was a lot of push back on how far the Bank should intervene in how the government uses the revenues. So a lot of work was done on structure. The overall program supported training to government staff and modernization of their revenue management. So that issue received significant attention.

Another **Participant** asked Mr. Morgan whether a monitoring system was set up to measure changes in the level of income for those who are displaced? Does it go up or go down—what is their status after a few years?

**Glenn Morgan** replied that "This is probably the most monitored project that you are ever likely to see." The monitoring takes place at many different levels. There are monitoring responsibilities within the company, particularly for the Resettlement Management Unit. There is also the Government Resettlement Management Office. There is independent monitoring of the performance of different programs. There is some monitoring done by an independent panel of experts. All of the international financial institutions have monitoring. So there is a very comprehensive program to follow the success and the ebbs and flows of these livelihood programs.

Mr. Glenn Morgan was also asked about accounting for the natural resources. A **Participant** noted that considerable biodiversity value would have been submerged by the reservoir, so how was that cost included in the assessment of benefits?

**Glenn Morgan** said that while evaluations of the resources were made, the amount of benefits really came from negotiation—what the company was willing to pay, what the Bank could get from them. He suggested that "This is not something that a Bank is particularly good at. We're not very often in the position of having to negotiate with private companies about how much of their revenue stream should be allocated for things like conservation of the watershed area." In the end, it was a compromise. The unit costs are something like $8,000 per household, which is about average for such projects. The Chinese have spent more than that on some of their own projects. "This is a good, solid program, but I would not say that it is gold plated" he said.

Mr. Morgan noted also that there is $1 million a year for thirty years from project revenues going to protection of the watershed. "Over thirty years, that's a $30 million commitment—more money than the Global Environment Facility (GEF) has put into conservation in all of Southeast Asia combined. This is a strong level of commitment."

**Daryl Fields**, noting that the ISAGEN program is very comprehensive, asked Ana Maria Arias Loaiza and Claudia Alvarez Tobon, whether they had feedback on a regular basis for their full program from the communities? What is that feedback mechanism? How does ISAGEN maintain the dialog, and at what level in the company does that happen?

**Ana Maria Loazia** responded that ISAGEN has structured surveillance of the programs, with visits to the communities every six months. They have standard indicators, to measure progress in each program. But they also feel that their regular contact with the communities enables them to keep in touch, and know when there may be problems or opportunities. "We don't work in the office, but from these places," she said.

**Daryl Fields** then asked **Larry Haas** about his team's review of the Vietnamese legislation— specifically whether looking at the legislation in other sectors was useful for designing the benefit-sharing for their work.

**Larry Haas** replied that "the policy review was crucial," it set the stage both for design and passage of the legislation. This legislation will generate $20 million a year for benefits-sharing under hydropower projects in the country. The pilot project will generate $800,000 a year. The policy review was able to show four things. First, was the critical role of the province in the management of a benefit-sharing trust, and how to establish the benefit-sharing council, which includes local representatives, provincial representatives, and representatives from the communes that are impacted. So the trust is a multi-stakeholder approach, modeled on a trust created under the environmental legislation. "It was crucially important to show that this was all grounded in existing legislation."

The second point is that existing legislation provided models for several types of benefit-sharing. One is the equitable access to electricity, which is in the Electricity Act. Although the official figures show 90 percent or even close to 100 percent electrification, in these upper villages it is sometimes closer to 30 percent. And it is usually the poorest groups in the community that have no electricity access, because these households cannot afford the connection to the house. So, the Electricity Act provided a model for that. They found models for non-monetary benefit-sharing in the forestry legislation, the land acquisition act, and the fisheries legislation, all of which provide for programs and measures that you can incorporate into a benefits-sharing program.

The third thing that they found in the laws from other sectors was models of how to integrate with the local development planning system—it has to be integrated and supported with the local development process.

The final point was the level of benefit-sharing. The current Water Resource Act allows for 2 percent to go to watershed protection, so they set 2 percent for benefit-sharing, 2 percent for water resource protection, and 2 percent for environment protection, and this was acceptable.

Another **Participant** asked whether NT2 would supply electricity to rural areas in Laos now or in the future, or is it all to be exported to Thailand to earn revenues?

**Glenn Morgan** explained that Nam Theun 2 will provide some local electrification, both through the resettlement programs and the downstream programs and also through local transmission. But the major objective of the project is to be an enclave project to sell power to Thailand. "That's the way this particular project is structured, although it does have some rural electrification benefits," Mr. Morgan stated. "There is a lot of debate about whether it was the appropriate kind of project for Laos to be developing, but in the end I think the consensus was that it was at this time appropriate to support a project that is primarily revenue-generating in nature."

He added that it should be noted that the government of Laos is a 25 percent shareholder in the project, and over the next 25 years, the project will gradually be handed over. So in year 1, expected revenues for the government of Laos are on the order of $30 million. Gradually those revenues will increase; they would get the entire revenues from the project after year 25.

A **Participant** observed that the presentations suggest that we are moving away from simply replacing assets and going into more sophisticated benefit-sharing exercises. But, the participant asked, do we have a clear picture of what this should look like? "Because there are so many parameters that one could

suggest that the best we could get out of this is a basic framework that would replace the safeguards of the World Bank."

**Larry Haas** responded by saying that in Vietnam this approach places the responsibility, authority, empowerment, and opportunity in the hands of the local communities working with their local government, so the project manager from the Bank or the developer does not need to get involved in those details. He needs to be there, and support the process, but it is self-running by the local community. So the framework is provided by the government, but there is plenty of flexibility for people to do things locally. "This empowerment of the local communities goes beyond safeguards, because we're talking not about mitigation and compensation, but about development. It is another development instrument."

## SESSION 5
## Benefit-sharing: Closing Session—Moving Forward

**Stephen Lintner (Co-Chair)**
Senior Advisor, OPCQC

**Navin Rai (Co-Chair)**
Lead Specialist and Team Leader, SDV

**Daryl Fields (Co-Chair)**
Senior Water Resources Specialist and Team Leader, ETWWA

**Daryl Fields** outlined the structure of the session: first, Marielle Rowan would present the draft framework on benefits-sharing, then Stephen Lintner would offer suggestions on how we keep this practical and implement the concept of benefit-sharing. Comments from the floor would be addressed. Ms. Fields underscored that this is a work in progress, and that this session is intended to help guide the team working on the Enhancing and Sharing Benefits Initiative to produce tools that are useful not only to Bank staff in the field, but to anyone working on hydropower development.

**The Draft Analytical Framework for Enhancing and Sharing Benefits from Hydropower**[3]
***Marielle Rowan,*** *Project Manager, and Social Sustainability Team Leader for Mott MacDonald's Energy Unit*
**Marielle Rowan** began by explaining the structure of her presentation. She would begin with the objectives of the analytical framework, and then move through the key questions that focused the team's work: Who receives the benefits? What are the benefits that are there to be enhanced and shared? How can benefits be enhanced and shared? And when should we be including benefits enhancement and sharing in the project cycle? She would present some thoughts on how the analytical framework could be used to structure a new set of case studies that would provide new information.

***Objectives***
The objectives of the Analytical Framework are to understand the relationships and extent of benefit-sharing that takes place among the various local and regional stakeholders. This involves understanding the direct and indirect, short- and long-term benefits at the local and regional levels that enhance development outcomes. It also involves looking at the policy, institutional, and contextual factors that constrain or contribute to development benefit-sharing.

To focus our work, we worked through the following questions: Who gets which benefits, how and when?

To answer these questions, it is important to be clear about the terminology that we are using. The concepts that have been adopted include:

[3] The Draft Analytical Framework has been prepared for the Bank by the Mott MacDonald team as a companion study to the Literature Review.

- Looking at development benefits as benefits that are valued as an advantage, help, or empowering;
- Looking at beneficiaries as people, organizations or individuals to which development benefits accrue;
- Looking at benefit-sharing as being a framework to maximize and distribute benefits across stakeholders consistent with the principles of sustainability—this is consistent with Daryl's definition; and last
- Looking at beneficiary mechanisms as instruments, processes, or agents that help achieve development benefits.

***Who Receives the Benefits?***

When looking at who benefits, there is the "local" area, host communities, project-affected area, and basin catchment. The concept of "local" can be misleading, particularly in large projects, where "local" may cover a vast spatial area. The concept of "host communities" may either be those receiving relocated people or being where the project is located

The "project-affected area" can include the area where people are directly impacted, the host communities at the site and for relocation, and the area from which employment is derived. Our research team found that term "basin catchment" was more appropriate than "local" or the other terms because it puts more emphasis on the cumulative impacts and represents a systems approach.

In addition to the basin catchment area, we also looked at the "national" scene, because often the benefits of the project are going to people who live a long distance away from where the project occurs, as often electricity is going into a national grid. And we looked at "transboundary" because some projects are based on transboundary sites and there are cases where the off-takers, i.e. the electricity users, are in other countries.

In terms of receiving the benefits, we looked at a typology of stakeholders, including:

- community—neighboring communities; project-affected peoples; downstream and upstream communities; and local leaders
- government—local, national, and transboundary governments
- civil society—local NGOs, national NGOs, and international NGOs
- project proponents—sponsor, lenders, equity shareholders
- off-takers—utilities, consumers representatives, individual consumers
- regulatory stakeholders—utility regulatory players, environment permitting players, and health and safety inspectors.

All of these stakeholders have reasons for being involved in benefit-sharing. It is important to understand why people are interested in benefits-sharing. Yesterday, someone asked, "where is the 'why' in all of this?" The why is about what reasons stakeholders have to be interested and involved in benefits-sharing and enhancement; different stakeholders will play different roles. Looking at the the relationships between different stakeholders, we decided to define beneficiaries. This is because not all stakeholders are going to be beneficiaries, but often beneficiaries are going to be stakeholders. We looked at beneficiaries who just happen to be there serendipitously, such as tourists who come into the area to use

the reservoir for fishing or to visit the area. We looked at beneficiaries who are proactive and believe they have a claim to be beneficiaries, for instance a local leader who says, "Our community needs X from this project." We think it is important to better understand the relationships between beneficiaries and stakeholders because they can have different interests in making benefit-sharing work.

***What Benefits are to be Enhanced and Shared?***

The next part of who receives what benefits how and when is: What benefits are to be enhanced and shared? The literature showed a variety of existing typologies. These include:

- Monetary and non-monetary benefits.
- Direct and in-direct benefits. Direct benefits would be the electricity, water supply, and irrigation water. We do not have time to discuss flood and drought control, but a lot of reservoir projects have an essential role to play in water resource management.
- Primary and secondary benefits. Primary benefits are what can be derived from electricity supplies. Secondary benefits come from providing electrification, for example to hospitals and schools, which means people can have medication that is refrigerated and can study longer, resulting in health and education outcomes.
- Benefits that do not affect core investment, that do affect core investment, or that require add-on investment. Key project components such as roads can provide additional benefits in themselves.
- In the environmental literature, and the water literature, a basic typology is: Benefits to the river, benefits from the river; reduction in costs because of the river, and benefits beyond the river.
- Benefits from power generation and dam functioning, the improvement of infrastructure, and development of regional industries.
- The final one is a bit more of a spatial typology with off-taker, project area, downstream, transmission corridor, regional benefits, and extra-regional benefits.

When you look at these, the focus is on where they come from; that is, what is the source of the benefits? We are proposing in the analytical framework that it would be useful to look at benefits as contributors to development capital. Because of the prevailing use in the literature of the terminology monetary and non-monetary benefits, we believe it would be helpful to look at what the benefits are in terms of development capital. Development capital (human, social, natural, physical, financial) is terminology used for sustainable livelihoods and for human development.

***How can Benefits be Enhanced and Shared?***

We have reviewed briefly who receives what benefits. Now we will look at how. There is a range of mechanisms for enhancing and sharing benefits. The relationship between mechanism and benefit is not always linear or causative. One mechanism can provide several benefits, or benefits can have different mechanisms. Looking at the idea of monetary and non-monetary and benefits, we think monetary and non-monetary goes with benefits, rather than monetary mechanisms or non-monetary mechanisms. That might be something else to discuss.

In terms of non-monetary benefit transfer mechanisms, we looked at action plans, stakeholder forums, institution creation and strengthening, community investment programs, iterative design, technology transfer and technical assistance, and tourism. The talks we have had today are useful for looking at some

of these. For instance, the ISAGEN presentation talked about their action plans and social investment programs, so we have some good examples about how they work for providing benefits.

We heard about the Nam Theun project and the different types of committees that have been created. Those were special purpose vehicles. But the important point is they have been created and are used for benefit-sharing. Yesterday when talking about institution creation I gave the example of basin authorities. But the Nam Theun example shows there are more institutional arrangements than just basin authorities that support benefit-sharing.

With regard to technology transfer and technical assistance, preparatory studies provide a full range of information about the area and potential impacts. That information can also be very useful for communities so it is not only technology transfer, it should also be information transfer. Seismic information, for instance, can feed into developing building codes; environmental information can be used for local museums, academic programs, and supporting university lessons.

Not much has been mentioned about tourism, but it should not be underestimated because of its multiplier effects. Tourism jobs generally do not require high levels of education. As an industry, tourism requires a range of people with a range of skills to be a source of employment.

***When to Include Benefit Enhancement and Sharing during the Project Cycle? The Case Study Approach***

The last part of the question—Who gets what benefits how and when?—that still needs answering is when. Many believe it is critical to address benefit-sharing early on. One can integrate benefit-sharing into project objectives or address them along the way. There are cases for both approaches, depending on the setting of the project. However, I think it should be clear that we should not stop at planning benefit-sharing at the beginning.

I just had a rousing conversation with Malcolm; I asked "what about benefits-sharing later on during operation?" We just heard the example from Nam Theun about not being sure about what the impacts are and what the benefits such as fishing productivity would be. There should be mechanisms for looking at benefits later in the project cycle. He replied that the World Bank's authority ends when the agreement is signed. But maybe, in Nam Theun for instance, if we know that revenue is going to increase over the years, why is it not possible to say over those years that benefit-sharing is reopened as an issue and looked at when there is more certainty about what the impacts and benefits are? I raised the issue of tariff reopeners with him and he does not think that it is possible. But I am still of the mind that if it is well thought out, there should be opportunities created to re-open the issue of benefit-sharing, and planning for benefits, later on when projects are operational.

Part of the when is when benefits accrue, not just when we plan benefit-sharing. During pre-operation, benefits can accrue from capital expenses, taxes, and planning gain. During operation, benefits can accrue from operating expenses, service benefits, discounted electricity, royalties, and dividends. These may be non-monetary benefits—which tend to be less represented—not because of importance, but because less is known or written about them.

Now that we have this preliminary analytical framework—focused around answering: Who gets what benefits how and when?—it is helpful to look at next steps. A main next step is producing case studies.

*Case Studies*

The Bank's Benefits Sharing Initiative has proposed to develop a set of case studies. What is the aim of these? How are we going to make another set of case studies stand out from what we already know?

The case studies will help us to build on the literature review and collect information that is lacking. We are proposing, and this is where your feedback here is important, to use the analytical framework to guide the data collection analysis for case studies. I would like to discuss initial ideas on how the question—Who gets what benefits how and when?—will feed into data collection for the case studies.

Looking at the Who, we believe there is a need to understand institutional arrangements with stakeholder mapping and showing it visually so people can see, for instance, what are the special purpose vehicles, who are the institutions involved, and what are the relationships among them.

It would also be useful to look at it this way: Who are the stakeholders and who are the beneficiaries? Why are the stakeholders interested in benefit-sharing? What role can they play in benefit-sharing? We have presented a generic format via the typology in our study. A case-by-case basis might provide some information that would help understand how benefit-sharing could be enhanced.

We need to look more at the functions of stakeholder forums. The idea is to take a list similar to the Nam Theun 2 committees that have been created and ask who are the participants, how regularly do they meet, how long do they meet for, what is their mandate, who do they report to, and who are they financed by? These are the kind of questions that would lead to learning for implementation.

Now we turn to the What. There is a fair amount of information about monetary benefits and less about non-monetary benefits. Increasing the menu of options, especially of non-monetary benefits, would be a useful contribution from the case studies.

Finally, there is the How. Some of the important questions that we would want to answer with the case studies can be gleaned with interviews and desktop research. For instance, what mechanisms were used to transfer, share, and enhance benefits to basin catchment communities? Who championed the idea of benefit-sharing within the project? How it was decided how much would be shared with local communities? Why were benefits not enhanced more for basin catchment communities? If you could improve the project to enhance benefits for local communities, how would you do so?

An important part of the How is identifying the enablers and the constraints. What were the political considerations and what were the institutional arrangements, project sponsor characteristics, beneficiary characteristics, economic and financial considerations, and the regulatory and legislative framework. A table could present these results.

And last we need to look at: When was benefit-sharing and enhancement planned and when did benefits accrue? One way of doing this is by developing a project cycle time line for the complete project, and then overlaying that with a benefit-sharing activity timeline. Such an approach might provide some relevant answers for task managers. We want results that are useful for World Bank task managers and others who are looking at how to enhance benefits in their hydropower projects

In summary, each case study could identify who the beneficiaries are, what the benefits ar, and the type of development capital they contribute to, the source and transfer mechanism for sharing the benefit, and when the benefit was planned and accrued.

***Stephen Lintner,*** *Senior Advisor, Quality Assurance and Compliance Unit, World Bank*

**Mr. Stephen Lintner** began his remarks by posing the challenge: "How do we evolve the way we do business? Not just the way that the World Bank does business, but the multilateral development banks and the bilateral donors. How do governments, by choice, and the private sector, by choice, evolve the way we work?" Marielle Rowan's presentation of The Draft Analytical Framework provides a good starting point to ask, How do we present this as an evolutionary approach? "How do we position benefits-sharing and enhancement, not as a requirement, but as something that people should think about, something that is desirable? And then, by example, by experience, have this start to grow."

Mr. Lintner suggested that the development community is saturated with mandatory environment, social, and public consultation and disclosure requirements. "We are probably at the high tide of requirements." The formal frameworks—the World Bank safeguard policies, the IFC performance standards, the Equator Principles—basically say "think before you act." This is a mandatory baseline. Now we need to make the transition from what is required to what would be desirable. The Nam Theun Project, for example, mixed requirements and innovative approaches.

His next point was that clarity of concept and approach should be paramount. Mr. Lintner mentioned his recent experience with environmental flows, a complementary activity that is getting attention in the hydropower sector and in water management more generally. The problem is to come up with messages that government officials, bankers, task managers, and engineers can understand. The Bank social and environmental agenda is now so complicated that people do not understand what it is about. "We've got to be able, within one page, within two minutes, to explain what we mean by benefits-sharing and enhancement." We need to get to where people can say, "Yes, I understand what that is. I understand why it is important. I don't really understand how it works, but there are people that I can talk to."

Mr. Lintner then recognized the need for a diversity of approaches. In the workshop presentations and discussions, diversity has been shown to be a good thing. "Diversity means we do not have one approach, but we have some broad objectives, with many ways to realize those." In making this a structured evolution, he suggested that, rather than trying to codify what is good practice, we want to point out experiences and opportunities that can be taken and adapted. As the diversity of settings are enormous, to prematurely codify what we think is good practice would be disastrous.

He also warned against trying to make lending operations of the World Bank, or investments by government or the private sector, bear all of the costs for benefit-sharing and enhancement. Referring to Glenn Morgan's presentation on Nam Theun 2, he highlighted the point that a large hydropower project can be complemented by other investments. A single project cannot carry all of the costs for benefits, but it can be a mechanism to get people to focus on, and act as a magnet for generating benefits

Mr. Lintner then suggested that in addition to a project's zone of impact—where the environmental and social policies apply—there is also a "zone of expectations." The question of managing expectations is critical. This is an issue, for example, for the Bujagali hydropower project in Uganda, where people from all over Uganda expect that they will get a job. Every project has this larger zone of expectations. It may

be adjacent to the project zone of impact, it may be within it, it could be subregional, or it could be national. We need to look at how benefits-sharing fits into this, and make the zone of expectation a positive concept.

Another potentially sensitive issue that Mr. Lintner called attention to was the need to use line ministries and normal government structures to do our work. This would support the Paris Declaration's commitment to move away from specialized project-based units, and help make government line agencies work effectively. "There will continue to be a need to create new government structures, such as watershed management authorities, but if we are going to implement benefit-sharing, we need to use traditional, authorized government structures that already exist to deliver these benefits rather than create new structures, unless there is a very good reason," he said.

We also want to get the creativity of the private sector, including parastatals, involved. Many of the utilities are parastatals that work in an autonomous manner. In India, the World Bank is working with PowerGrid, a progressive transmission company where innovation is being led by the CEO. He wants to build an Indian-based world class power transmission company with good environmental and social standards. In the case presented today from Colombia, we also saw a utility that has a modern approach. These groups have a vision and leadership, which makes them easier to work with than governments.

Mr. Lintner said that he believes that adaptive management is important for benefits-sharing. You want to be able to respond when reality has changed on the ground. This is easy to say and extremely hard to do. Again referring to Nam Theun 2, he noted that the concession agreement defined the private sector responsibilities. "It's powerful, because you can hold them to it. But it also means that it is pretty hard to do adaptive management, because you've laid everything out." An adaptive management approach, unless thought out carefully, increases the risk level, which is not often something that the private sector wants. To be innovative and to use adaptive management, there needs to be a structure where both the government and the private sector have some sense of control. We may need to look more at contingency mechanisms, which will require the work of skilled lawyers.

Based on his experience with the issue, and reinforced by the day's discussion, Mr. Lintner believes that the case studies are going to be important for the Sharing Benefits Initiative. But the case studies need to be light and use a format that people will read, for instance a modular format of five to seven pages where people can find what they want about benefit-sharing. Such documents should "capture what we are talking about, in a way that gives you confidence that it is doable… to buy down the challenge threshold."

The case studies will help show that where benefit-sharing is done, the projects get built, "and you don't have demonstrations and riots when you do it this way." Benefits sharing, if it is done well, and expectations are managed, leads to less social tension. Projects get implemented on schedule and time is not wasted dealing with upset politicians, outraged NGOs, or, even more importantly, citizens who feel they have been treated poorly. The bottom line is that these approaches support basic development values and make life better for people.

Mr. Lintner suggested that the most effective dissemination mechanism for benefit-sharing would be targeted seminars within the World Bank and with colleagues from the other banks and development agencies, and the private sector. He also suggested building on the success of discussions such as those

held at the International Association for Impact Assessment (IAIA) meetings. He believes it is important that while work is in process, we need to start getting messages about benefit-sharing out piece-by-piece to a diversity of audiences to allow us to learn more from others.

In closing, Mr. Lintner acknowledged again the high level of interest and participation in the two days of meetings—and the good mixture of social scientists and task managers. The meeting has helped to make the case that "there is a better way to do things that can achieve development objectives, that can promote sustainable development and poverty reduction, and at the same time make projects better, more easily implementable, and in the long run, more sustainable."

***Discussion***

**Claudius Thomas**, in agreeing with Mr. Lintner's point, said that he thinks managing expectations is the greatest problem that benefit-sharing procedures have. "If the expectations are managed correctly, then the tensions are lessened and project objectives get achieved," he said.

**Stephen Lintner** quoted Ian Johnson, the Bank's former vice president for environment and sustainable development, on how to manage expectations: "underpromise, overdeliver." When we design and implement projects, effective communication strategies are needed. "We tend to focus on the affected people, but we need a multi-audience message. We need to be very clear what the project is and what it is not, what the expectations can be about benefits and what they cannot. Unless we effectively communicate the scope, objectives, and timing of these operations, we frequently see folklore taking charge." Since engineers, environmental or social scientists, and economists are not communication experts, Mr. Lintner recommends bringing in the external affairs people. But the key is to underpromise and overdeliver, be clear about what will happen, and try to minimize the amount of oral history, which creates so much of these expectations.

Also, Mr. Lintner suggested, we need to move fast in implementation. Projects that get stalled tend to have problems with expectations. Stalling has been a major problem with Nam Theun 2 because of the East Asian economic crisis, as it has been on many other projects. If a project stalls, which does happen, particularly on large projects, we need to redouble the communication efforts.

A **Participant** commented on the planned case studies, indicating that although this workshop has focused largely on social concerns that were neglected in the past, there needs to be balance in the case study presentations across economic, environmental, and social issues, in particular that the economic development is sustainable. She queried whether the focus would be to look at impacts of projects that have been implemented in the past, or on current, ongoing projects. She suggested that for older projects the net economic, environmental, and social impacts could be assessed to produce summaries of best practice on the institutional front.

**Daryl Fields** clarified that the case studies would include both old and existing projects. Another World Bank study under way is looking at environmental and social aspects of rehabilitation and re-operation.

**Stephen Lintner** pointed out that the World Commission on Dams and most others have focused on new dams, but there is also a challenge for both reoperation and rehabilitation on existing dams. Many of the dams that were built in the past will function differently in the future, not just due to climate change, but because of social and economic developments. There is shifting from irrigated agriculture to municipal

and industrial use where the same structure has different operating procedures. The economics also change since there are less subsidies in those uses than in irrigated agriculture. This shift opens new opportunities for benefit-sharing. Also, there will be rehabilitations or upgrades that raise the crest and provide more water. We need to think about how to use those changes for benefit-sharing.

**Marielle Rowan** suggested that there will also be changes as major industries look at energy alternatives. For example, aluminium smelters traditionally use thermal power plants, but we know of one major project looking at hydropower to provide its energy.

A **Participant** asked whether the analytical framework will include a comparison between enhancing benefits and current Bank policies. If there are changes to requirements, it will be important for teams to know. Also, since the role of foreign investment is critical, will there be a legal analysis of countries and the implications for foreign investments?

**Stephen Lintner** agreed that it will be important to distinguish between what is required and what is mandated by the Bank's Board-approved policies. World Bank safeguard policies are subject to extreme scrutiny by the Board as well as by public debate. "We will need to lay out in a simple manner what is required and then we can talk about enhancements to prevent confusion."

Mr. Lintner also noted that in the past there have been problems when staff claimed that certain things were required under safeguard policies where they clearly were not. Moving from a purely regulatory approach, where the safeguard policies act as *de facto* laws, to a position where they are terms for dealing with impact risk and mitigation, we can say that enhancing benefits goes beyond that. It would need to be carefully constructed between consultants, the Quality Control and Compliance Unit, and the Legal Department's environmental law practice.

On the issue of national investment frameworks, Mr. Lintner noted that large emerging economies—China, India, Brazil, and others—are starting to come into international hydropower investing and equipment supply. In terms of small technology, the Vietnamese are all over Southeast Asia selling very small units. We are going to see much more of this in the next few years. Legal regulatory frameworks may go beyond the scope of this benefits initiative, but it is something that we need to recognize as an issue; in many countries, unless they get good advice, it will be a problem. For Nam Theun 2, the government of Laos retained some very skilled Australian lawyers who were a real match for the investors. The World Bank has offered to support a number of governments on agreement negotiation with international investors, but most have refused. This relates to transparency and accountability. Whether for a new investment or for privatizing an existing investment, there is reluctance to bring in lawyers. This is going to become a bigger issue.

**Sanjay Srivastava** observed that institutional delivery mechanisms are the weakest link in the delivery of benefits. There should be examples from the minerals, mining, and oil sectors. These could be included in the study, to look at examples of how and why it has worked or not worked. As a separate point, he suggested that the assessment should try to make a distinction between incremental investments for benefit-sharing and regular developmental budgets. When an investment comes in, it is often the case that that the government's regular developmental budget is replaced.

**Daryl Fields** replied that the Benefits Initiative is focusing on the hydropower sector, "but we recognize there are lessons to learn, especially from transportation and mining. Our challenge is to manage the scope of the exercise and we are hoping that as we involve experts, like we have in the past few days, they will bring in lessons from other sectors." She recognized that focus on institutional mechanisms would be useful.

Ms. Fields also noted that during the Meeting of Experts there was a long discussion about the increment of government versus project investment. They concluded that we have to keep in mind a triumvirate—the communities, the government, and the sponsors/developers. "In talking about benefit-sharing it is hard to pull out any one of those because they are all integrally linked. We want to look at it from many layers, and the many participants and their roles."

**Marielle Rowan** added that there had also been discussion during the previous day's meeting about legislation for benefits-sharing and whether we are seeing results from it. There may be cases where project investments duplicate what is expected to be done through the legislative framework.

***Concluding Remarks***

**Daryl Fields** offered some closing remarks. She summarized that we know that benefit-sharing is needed and it has to be practical. She then recapitulated several key points that had struck her during the presentations and final session:

- There is little practical information and we should focus on the implementation side, working to clarify the concepts, particularly as they relate to current projects.
- Flexibility is needed—no "one size fits all." We need options on mechanisms and on how beneficiaries are defined.
- We are dealing with perceptions both about the principles and the overall topic of benefit-sharing. In addition to thinking in terms of governments, developers, and project-affected peoples, it may also be useful to think about the concept of consumers and host communities.
- Ongoing learning is a part of the Bank's business. Even after this exercise is over, we need to keep learning and growing.
- Finally, what may be the most fundamental concept for benefit-sharing came from Joji Carino during the discussions yesterday, when she said "If you're not at the table, then you are likely on the menu."

Ms. Fields thanked all of the participants, those who worked to prepare, organize, and enable the workshop, and the consultants. She closed the session and the workshop by saying, "I feel that we are drinking from a fire hydrant that is on full bore. But we can do some water management!"

## APPENDIX 1: Agenda

SOCIAL DEVELOPMENT DEPARTMENT & THE WATER ANCHOR

**Enhancing Development Benefits to Local Communities in Hydropower Projects**

Technical Workshop Agenda

Thursday, June 26, 2008
9:00 am – 4:30 pm
Renaissance M Street Hotel
1143 New Hampshire Ave., N.W. | Washington, D.C. | Tel: 1-202-775-0800

### Workshop Purpose

The Social Development Department (SDV) and the Water Anchor (ETWWA) of the World Bank are hosting a Technical Workshop on *Enhancing Development Benefits to Local Communities in Hydropower Projects.* This workshop aims to provide a platform for discussion on past and current practices, as well as approaches of development benefits mechanisms within the specific context of hydropower projects. It also provides a forum for sharing knowledge as to how development benefits mechanisms may be applied to Bank-financed projects. It will bring together international experts and World Bank staff to discuss experiences and lessons learned from cases around the world.

### Context

After a hiatus of roughly a decade, investments in hydropower are being scaled up. Lending for hydropower is broadening geographically and by project type. As a renewable source of energy, hydropower plays a key role in climate change mitigation. The scaling up is to meet a variety of development needs, including energy access, water security, and regional cooperation. Poverty eradication and the Millennium Development Goals (MDGs) cannot be achieved without providing developing countries with the needed infrastructure, among which hydropower is a basic component in several different parts of the developing world.

Hydropower is increasingly recognized as providing multiple opportunities to significantly enhance local community benefits, along with regional and transboundary development, if planned, designed, and implemented in a sustainable manner. Enhancing development benefits and expanding their distribution beyond energy consumers is a necessary component of sustainable hydropower.

The Technical Workshop will focus its discussion on enhancing development benefits to local communities in hydropower projects and will also cover issues pertaining to the broader range of benefits-sharing.

## Agenda

| | |
|---|---|
| **9:00 AM TO 9:30 AM** | **OPENING SESSION** |
| | **Hartwig Schafer**<br>*Director of Operations and Strategy (SDN)*<br><br>**Abel Mejia**<br>*Sector Manager (ETWWA)*<br><br>**Alexandre Marc**<br>*Acting Director (SDV)* |
| **9:30 AM TO 10:15 AM** | **SESSION 1 : CONTEXT AND PURPOSE** |
| | • **Workshop Objectives and Expected Outcomes**<br>***Navin Rai**, Lead Specialist and Team Leader, SDV*<br>• **Hydropower Legacy and Enhancing Benefits to Local Communities**<br>***Peter Leonard,** Senior Social Development Specialist, QACU*<br>• **Scaling Up Hydropower for Development**<br>***Daryl Fields,** Senior Water Resources Specialist, ETWWA* |
| *10:15 AM TO 10:30 AM* \| *BREAK* | |
| ***10:30 AM TO 11:30 AM*** | **SESSION 2: VOICES OF LOCAL COMMUNITIES** |
| | **Chair:** ***Walter Arensberg**, Social Capital Group, LLC*<br>• **Indigenous Peoples**<br>***Joji Carino,** Former Commissioner, World Commission on Dams*<br>• **Experience of the Cree, Québec with a Hydropower Project**<br>***Réal Courcelles,** Senior Advisor, Hydro-Québec, Canada*<br>• **Discussion** |
| ***11:30 AM TO 12:15 PM*** | **SESSION 3: ENHANCING DEVELOPMENT BENEFITS TO LOCAL COMMUNITIES: LITERATURE REVIEW** |
| | **Chair:** ***Maninder Gill,** Sector Manager, ECSSD*<br>• **Literature Review Presentation**<br>***Marielle Rowan,** Project Manager, Mott MacDonald (Consulting Firm)*<br>• **Discussion** |
| *12:15 PM TO 1:15 PM* \| *LUNCH BREAK* | |
| ***1:15 PM TO 3:00 PM*** | **SESSION 4: ENHANCING DEVELOPMENT BENEFITS TO LOCAL COMMUNITIES: EMERGING PRACTICES** |
| | **Chair:** ***Malcolm Cosgrove-Davies,** Sr. Energy Specialist, AFTEG*<br><br>• **Emerging Practices in Africa**<br>• **Emerging Practices in Latin America: Colombia**<br>***Ana Maria Arias Loaiza and Claudia Alvarez Tobon**, ISAGEN*<br>• **Emerging Practices in Asia: Vietnam and Laos**<br>***Lawrence Haas, Consultant***<br>***Glenn Morgan, Lead Environmental Specialist, LCSEN***<br>• **Discussion** |
| *3:00 PM TO 3:15 PM* \| *BREAK* | |

| *3:15 PM TO 4:30 PM* | **SESSION 5: CLOSING SESSION, MOVING FORWARD** |
|---|---|
| | **Chair:** ***Navin Rai,*** *Lead Specialist and Team Leader, SDV*<br><br>• **Draft Analytical Framework**<br>***Marielle Rowan****, Project Manager, Mott MacDonald, Ltd.*<br>• **Observations on Making Benefits Enhancement Practical**<br>***Stephen Lintner****, Senior Advisor, OPCQC*<br>• **Discussion**<br>• **Closing Remarks**<br>***Daryl Fields, Senior Water Resources Specialist, ETWWA*** |

## APPENDIX 2: Participants

**Nilufar Ahmad**
SASDS
The World Bank

**Claudia Lucia Alvarez**
Social Communicator/Environmental Department Director
ISAGEN

**Walter Arensberg**
Managing Director
Social Capital Group

**Ana Maria Arias**
Environmental Engineer
ISAGEN

**Asmara-Lua Achcar**
AFTWR
The World Bank

**Nina Bhatt**
EASSO
The World Bank

**Joji Carino**
Indigenous Peoples Policy Advisor and European Desk Coordinator
Tebtebba Foundation

**Bhaskar Chatterjee**
Additional Secretary, Department of Land Resources
Government of India

**Rumjhum Chatterjee**
Managing Director
Feedback Ventures

**Asger Christensen**
SASDS
The World Bank

**Elena Correa**
SDV
The World Bank

**Malcolm Cosgrove-Davies**
AFTEG
The World Bank

**Réal Courcelles**
Senior Advisor, Aboriginal Relations
Hydro-Quebec

**Claudia Croce**
ENVCF
The World Bank

**Maria Cruz**
SDV
The World Bank

**Maitreyi Das**
SASDS
The World Bank

**Yvette Laure Djachechi**
AFTCS
The World Bank

**Amy Faust**
LCSDE
The World Bank

**Daryl Fields**
ETWWA
The World Bank

**Ann Glauber**
LCSEN
The World Bank

**Maninder Gill**
ECSSD
The World Bank

**Francis Griffin**
Hydropower Divisional Manager
Mott Macdonald Group

**Lawrence Haas**
Consultant
U.K.

**Bjorn Hamso**
ECSSD
The World Bank

**Michael Haney**
SASDE
The World Bank

**Mary Judd**
EASSO
The World Bank

**Karin Kemper**
SASDN
The World Bank

**Jeff Kerr**
Project Director
Mott Macdonald Group

**Shaheena Khan**
ECSSD
The World Bank

**Afshan Khawaja**
OPCQC
The World Bank

**Will Knowland**
Senior Environmentalist
Mott Macdonald Group

**Robert Lanari**
Consultant
Canada

**Peter Leonard**
QACU
The World Bank

**Antonio Lim**
ECSSD
The World Bank

**Stephen Lintner**
OPCQC
The World Bank

**Alexandre Marc**
SDV
The World Bank

**Juan Martinez**
LCSSO
The World Bank

**Abel Mejia**
ETWWA
The World Bank

**Glenn Morgan**
LCSEN
The World Bank

**Lars Oedegaard**
ETWWA
The World Bank

**Donal O'Leary**
Senior Advisor
Transparency International

**Daniel Owen**
SDV
The World Bank

**Carolina Pizarro**
ETWWA
The World Bank

**Wolfhart Pohl**
ECSSD
The World Bank

**David Post**
SDV
The World Bank

**Juan Quintero**
EASRE
The World Bank

**Navin Rai**
SDV
The World Bank

**Denis Roux**
Manager, Consultation and Negotiations
Aboriginal Relations
B.C. Hydro

**Marielle Rowan**
Project Manager
Mott Macdonald Group

**Seemeen Saadat**
SASDS
The World Bank

**Hartwig Schafer**
AFRVP
The World Bank

**Avjeet Singh**
SDNLR
The World Bank

**Mridula Singh**
SASDS
The World Bank

**Radhika Srinivasan**
ECSSD
The World Bank

**Sanjay Srivastava**
SAROQ
The World Bank

**Suzan Tack**
AFTWR
The World Bank

**Claudius Thomas**
Bumbuna Project Implementation Unit
Sierra Leone

**Hugo Us**
LCSSO
The World Bank

**Varalakshmi Vemuru**
SDV
The World Bank

**Kimberly Vilar**
LCSSO
The World Bank

**Per Wam**
SDV
The World Bank

**Warren Waters**
AFTQK
The World Bank

**Marieke Van Der Zon**
EASTE
The World Bank

## APPENDIX 3: Speakers

In order of initial presentation.

**Hartwig Schafer,** *Director of Operations and Strategy, SDN, World Bank*

Mr. Schafer is currently Director of Strategy and Operations in the Sustainable Development (SDN) Network Vice Presidency, where his top priorities include overseeing the World Bank's engagement in the areas of climate change, sustainable infrastructure, and agriculture and food, as well as coordinating external partnerships with governments, international organizations, the private sector, and the civil society organizations. Previously Mr. Schafer held the positions of Director for Operations and Strategy, in the Africa Regional Vice President's Office overseeing the implementation of the Africa Action Plan, with its focus on results and scaling up development impact across the Sub-Saharan Africa. He has served as Country Director for Malawi, Zambia, and Zimbabwe and he also was Chief Administrative Officer for the Africa Region. Mr. Schafer, a German national, has been with the Bank for 18 years. His academic background is Economics (PhD) and Agricultural Economics (MA and M.Sc).

**Abel Mejia,** *Sector Manager, ETWWA, World Bank*

Mr. Mejia is Sector Manager for the World Bank's Water Anchor; he has been Sector Manager in Latin America for Environment, and also Sector Manager for Water. He is also the World Bank Focal Point for Hydropower Re-engagement.

**Alexandre Marc,** *Acting Director of the Social Development Department, World Bank*

Mr. Marc is Acting Director of the Social Development Department. Previously he has been Sector Manager of Social Development in the ECA Region. Before joining the World Bank in 1988, Mr. Marc led research and consulting on Africa at Oxford University and for The Societe D'Etude Economique et Sociale. He began work at the World Bank for the Social Dimension of Structural Adjustment unit, assessing the impact of the structural adjustment policies on the poor in Africa. Mr. Marc holds a doctorate in Political Science.

**Navin Rai,Indigenous** *Peoples Adviser, SDV, World Bank*

Mr. Rai is is the World Bank Indigenous Peoples Adviser. In this capacity, Mr. Rai oversees implementation of the World Bank strategy and policy on Indigenous Peoples. He provides technical advice on the Bank's corporate vision related to Indigenous Peoples, conducts quality assurance reviews for complex development projects affecting Indigenous Peoples, and supports capacity building for Indigenous Peoples' organizations and borrower agencies on Indigenous Peoples' issues. Mr. Rai is also Lead Specialist for the Inclusion and Social Safeguards Team in the Bank's Social Development Department, where he coordinates implementation of the Bank's social safeguards policies as well as the program on Indigenous Peoples and Climate Change. In addition, he leads the World Bank Pilot Initiative on Enhancing Development Benefits to Local Communities in Bank-financed Hydropower Projects and the new initiative on World Bank Direct Engagement with Forests People in Forests and Climate Change Operations. A Nepali national, Mr. Rai joined the Bank in 1999. Previously Mr. Rai worked for the German Agency for Technical Cooperation (GTZ) for twelve years as team leader for multinational teams in the Philippines and Nepal. He holds a PhD in ecological anthropology.

**Peter Leonard,** *Senior Social Development Specialist, World Bank*

Peter Leonard is presently the Safeguards focal point and Senior Social Development Specialist at the World Bank Beijing Office. He has degrees in Social Sciences, Law and Urban and Regional Planning. Prior to joining the World Bank, Mr. Leonard worked in Hydro-Québec's Environment and Social Development Unit for 23 years. He has been involved in environmental and social assessment, environmental management planning, capacity building, institutional strengthening and technical assistance in several countries throughout the Middle East, Asia, North and Sub-Saharan Africa and Latin America. As Hydro-Québec's project coordinator for the Fund for Sustainable Development he has lead or participated in various CDM demonstration projects and capacity building programs in environmental and social assessment. Mr. Leonard is the past president and board member of the International Association for Impact Assessment (IAIA).

**Daryl Fields,** *Senior Water Resources Specialist, ETWWA*

Ms. Fields is a Senior Water Resources Specialist in the Energy, Transport and Water Department of the Sustainable Development Vice-Presidency. She leads the Bank-wide hydropower and multi-purpose water infrastructure functions, including development of strategic plans and monitoring of lending. Her project and analytical work focuses on sustainability issues. Ms. Fields represents the World Bank on the multi-stakeholder Hydropower Sustainability Assessment Forum and coordinates knowledge sharing and learning for hydropower and water infrastructure. She supports planning and lending projects in South Asia, Africa, and Latin America. A Canadian national, before joining the World Bank in 2004, Ms. Fields was Manager of Operations Planning at BC Hydro, Canada. She holds a M.Sc. in Economics.

**Walter Arensberg,** *Washington Representative, Social Capital LLC*

Mr. Arensberg is a Managing Director of the Social Capital Group. Until 2003, he was Chief of the Environment Division of the Inter-American Development Bank, and has been the Deputy Director of the Center for Environment and Development of the World Resources Institute and a General Partner at the international architecture, engineering and planning firm of Skidmore, Owings and Merrill. In each of these positions, Mr. Arensberg has had broad policy-making and management responsibilities involving public and private sector programs and projects.

**Joji Carino,** *Former Commissioner, World Commission on Dams*

Ms. Carino is presently Policy Advisor and European Desk Coordinator with the Tebtebba Foundation. Previously, she was a commissioner on the World Commission on Dams, and subsequently served as a Steering Committee member of the UNEP Dams and Development Project. Her work has included facilitating Indigenous participation at the World Summit on Sustainable Development, and the World Bank's Extractive Industries Review. An Ibaloi-Igorot from the Cordillera region of the Philippines, Ms. Carino has worked on the promotion of Indigenous Peoples' rights for nearly 30 years, spanning community education and organizing, building alliances, research, publications, and global advocacy.

**Réal Courcelles,** *Senior Advisor, Hydro-Québec, Canada*

Mr. Courcelles is a senior advisor for Hydro-Québec in Aboriginal community affairs. Since 1989 he has led teams assigned to the negotiation of agreements for hydroelectric development between Hydro-Québec and aboriginal communities. He represents the utility on several joint Hydro-Québec-Aboriginal boards of directors, and, on many occasions he has represented Hydro-Québec before Canadian and

International committees. His academic background is biology, teaching, and business administration, and holds a M.Sc. in Ecology.

**Maninder Gill,** *Sector Manager, ECSSD*

Mr. Gill is presently Sector Manager in the Europe and Central Asia Region, Social Development Department. Mr. Gill led the revision of the Bank's Involuntary Resettlement Policy, and is the lead advisor in the World Bank on Involuntary Resettlement. Prior to joining the World Bank, as senior staff of the Indian Administrative Service, he was responsible for planning and implementing the resettlement program for the 3,500 families belonging to Indigenous groups affected by the Narmada project in Maharashtra State.

**Marielle Rowan,** *Project Manager, and Social Sustainability Team Leader, Energy Unit, Mott MacDonald Group*

Ms. Rowan was Project Manager for the Literature Review on Enhancing and Sharing Benefits prepared for the World Bank. She is Principal Social Scientist and has led the Social Sustainability Team in the Energy Unit of Mott MacDonald, in Brighton, UK, since 2005. Ms. Rowan has more than 15 years of experience on social sustainability and community development issues, especially in relation to energy but also for transportation and water. She holds an MSC in Rural Extension Studies.

**Malcolm Cosgrove-Davies,** *Senior Energy Specialist, AFTEG, World Bank*

Mr. Cosgrove-Davis is a Senior Energy Specialist for the Africa Region. Until 2002, he was part of the team that laid the basis for mainstreaming renewable energy on commercial terms in Sri Lanka. Those two programs in particular have set the bar for quality and for involvement of the private sector.

**Ana Maria Arias Loaiza and Claudia Alvarez Tobon,** *ISAGEN*

Ana Maria Arias is an environmental engineer, responsible for coordinating and implantation of of environmental management plans on three of ISAGEN's hydropower stations. Claudia Alvarez is an anthropologist and social communicator, Director of ISAGEN's Environmental Department.

**Larry Haas,** *Consultant*

Mr. Haas is currently leading a Technical Assistance project for the Asian Development Bank in Vietnam, to introduce concepts of benefits-sharing to the new Electricity Regulatory Agency there. He was previously a team leader in the secretariat of the World Commission on Dams. As an independent consultant, he has led multidisciplinary teams working with water and energy utilities and commissions in both Africa and Asia. His previous work for the World Bank includes preparation of the Bumbuna Trust, to provide benefit-sharing in Sierra Leone.

**Glenn Morgan,** *Lead Environmental Specialist, LCSEN, World Bank*

Glen Morgan is a Lead Environmental Specialist with the World Bank's Sustainable Development Department. He's now working in the Latin America and Caribbean Region, and has more than 20 years working with natural resources and environmental management in Canada and in South and Southeast Asia, and now in Latin America. He has worked not only on hydropower projects but also on other large investments.

**Stephen Lintner,** *Senior Advisor, OPCQC, World Bank*

Mr. Lintner is the Bank's senior professional and advisor on issues concerning the environmental and social safeguard policies. His responsibilities include coordination and oversight of Operations Services Quality Assurance & Compliance (OPCQC), which provides bank-wide support for implementation of safeguard policies and associated disclosure requirements, and for the Bank's Inspection Panel. Since joining the Bank, he has worked as senior environmental specialist in the Europe, Middle East and North Africa region and lead specialist for freshwater, coastal, and marine resources in the Environment department. Previously Mr. Lintner held positions at the University of Chicago's Oriental Institute, United States Geological Survey, and United States Agency for International Development. He holds a Ph.D. in Geology.