

WORLD RIVERS REVIEW

INSIDE

Special Focus: Women, Rivers and Dams

Water Supply

Helping rural African women find better solutions to clean water. Page 3

Profile

Wang Yongchen has fought the good fight for China's rivers. Page 5

Clean Energy

We talk to women working in solar energy and clean stoves. Pages 6-7.

Our Rivers, Our Lives

Women activists talk about the rivers they love. Pages 8-9

Why We Cannot Keep Silent

Women Speak Out for Rivers

by Latha Anantha and Susanne Wong

How do women feel when their rivers are dammed, their forests and villages submerged? What are their main concerns when facing the huge social changes and trauma that these projects bring to their communities? What inspired them to resist large dams and join the movement against all odds? How can they build more strength into their struggles?

These were some of the questions we brought to a special women's forum at the third international meeting of dam-affected people, held in Temaca, Mexico in October.

Under an open tent, some 60 women gathered in a sharing circle to discuss our personal connections with rivers and our motivations for joining the international struggle to protect rivers and human rights.

What made this experience remarkable was the authenticity that each woman brought to the circle, and the inspiring stories of strength they shared. Across the world women have long been at the forefront of the dams struggle, confronting the dam companies and government officials who are pushing large dams in their communities, organizing events to call attention to these projects, and bringing people together in creative actions to protest dams. Many of the women



Women have long taken action to protect rivers. These women would be affected by the Sardar Sarovar Dam in India.
Photo: Karen Robinson

who came to Mexico for the Rivers for Life meeting said this was one of the first times they had shared their innermost feelings and internal struggles about trying to balance their family needs with the call to save their rivers from damming.

The stories we heard in Mexico were sad, moving, inspiring. The clear message was that these women simply could not keep silent anymore about the injustices that large dams cause.

Maria Chuy is from Temaca, which faces submergence by the El Zapotillo Dam. "My inspiration has been my town," she says. "I could not stay still. I realized that I am not only good for cooking and staying home and raising children, and had

to do something to save my town. I had to tell my children how to protect their rivers, defend their territories. This faith pushes me forward against all odds."

Dora Gauto Rios from Paraguay brought the group to tears when she told us her story of being forced out by Yacyreta Dam. "Today our river is silent. We know what our river tells us. In 17 years three dams have been built on our Parana River. It is completely polluted. It is gone! Our children will no longer be able to enjoy it. We are impoverished. Today, we do not have land; we do not have a place of birth."

The women were connected to their rivers – like an umbilical cord, their river

Continued on page 15

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Commentary

DAMS ARE A WOMEN'S ISSUE

There is wide recognition that the development of big dams has been especially harmful to women. Those behind the construction of dams have failed to protect the rights and welfare of those who are affected by these projects, and particularly have failed to resolve the problems caused to women and children. Many countries are signatories to the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), which holds signatory countries accountable for specific actions to promote women's rights and legislation to ensure equal treatment and participation. These agreements have not been taken into account in the planning, construction and operation of large dams.

The consequences associated with the construction of these projects for women are long-lasting. Women become further impoverished and marginalized, with very little capacity to improve their lives or those of their children. What follows are generations of deprived lives.

This special issue reflects on the broad spectrum of "women's issues" that arise from the building of large dams on the world's rivers. Some authors describe what women face when they lose their lands, homes and livelihoods. Others talk about their vision for their rivers. We also profile women taking charge, and being a force for change in their communities and the wider world.

As a woman who has worked to protect rivers for many years, I would like to give thanks to all the women in my life who have taught and guided me. Over the years, as I traveled to meet communities affected by dams, I have seen how these huge projects bring new hardships to the world of women and children. In Latin America, where I work, the leadership against these projects was historically mostly men, but in the past 15 years or so, women have found their voices and have argued sharply and effectively against projects that rob them of their lives, rivers, forests and rights.

Up on Chile's Bio-Bio River, I met Nicolasa Quintreman, a Pehuenche indigenous woman who lost her land to the Ralco Dam. She fought against the giant energy company Endesa for years, until finally she was the only person from her community who refused to give up the fight. Strong pressure from Endesa and the Chilean government forced the Pehuenche out. Nicolasa was the last one to move. She received a better settlement, but her first choice was to remain living at her house by the Bio-Bio. While she lost her fight, her courage and fortitude left their mark on me and many others.

Lupita Lara's home stood in the way of plans by the government of Mexico to dam the Santiago River, near Guadalajara City. "I saw them knocking down houses and finishing off my community and I felt that they injected me with strength and courage," she recalls. "It's nothing more than arming yourself with courage, valor, and defending what's ours, defending our environment, defending our communities." Lupita's fight paid off, and the Arcediano Dam was stopped.

Sometimes, after the social trauma of forced resettlement, women find they are up against their own menfolk, not just the dam authorities. Members of Asprociog, the organization of downstream communities affected by the Urra Dam in Colombia, found out that their goal to revitalize their communities (who still suffer impacts from the dam) was better accomplished if women played vital roles in leadership, and handled the money at the organizational and household levels. This solved the problem of men using money earned from fishing and crops to buy beer or prostitutes. Women used the money to educate children and put food on the table. Fighting *machismo* is on their agenda, and the men know it.

Overcoming the barriers to women's participation and influence in the developing world will require huge amount of work and change. But through capacity building, organizing, getting involved, using the media, and speaking out, women are becoming increasingly empowered. The improvement of women's lives is essential for achieving a healthy life and environment for present and future generations.

Ultimately, development decisions that do not include the people who are most directly affected by them is a road to nowhere. Women need to be sitting at the table – and not just at the kitchen table – when decisions on dam building take place.

Monti Aguirre

No Plot of One's Own

How Large Dams Reinforce Gender Inequalities

by Lyla Mehta

Large dams have enormous consequences for people's lives and livelihoods. Their far-reaching consequences can affect women and men quite differently.

Large dams lead to massive shifts in the ways in which men and women access and control resources across a river basin. In some cases, women might gain access to markets and urban facilities that were not available to them prior to resettlement, thus enhancing their set of economic choices and activities. Positive gender impacts can result from an increased or improved supply of water or electricity that can result from a large dam. However, having access to resources might not mean that women might have control over them. For example, enhanced irrigation possibilities might not lead to women having more control over water if men control water pumps and irrigation channels.

Largely, the spread of pains and gains has not been equal between men and women. To some extent, this is because of existing gender and male biases. Societies even in pre-dam contexts are often marked by high levels of inequality in terms of access to and control over resources. But based on almost two decades of research on gender, displacement and dams, I can safely say that new dams tend to aggravate existing inequalities and increase rather than close gender gaps. An engineer might argue that these problems have very little to do with the physical structure of the dam on the river, but instead with existing gender imbalances and patriarchal structures. However, technology is neither gender-neutral nor apolitical. The findings of the World Commission on Dams (WCD) and other studies reveal that planners rarely have the interests of the project-affected, the poor or the marginalized up front while planning and building dams.

Saying goodbye to home

One of the most tragic consequences of large dams is displacement. It is usually forced on vulnerable populations (often indigenous communities) living in remote but resource-rich areas. Resettlement is a traumatic experience for both men and women, re-ordering gender relations across a wide spectrum. However, planned resettlement processes are too often based on flawed understandings of gender roles and how they are affected by displacement. Typically, both the family and the community earmarked for either compensation or benefits are viewed as homogenous, with male members usually being targeted as the main recipients. These assumptions often serve to worsen existing inequalities.

Since 1991, I have been following the lives of several families who used to live in tribal and multi-caste villages on the banks of the River Narmada in India. After the construction of the Sardar Sarovar Dam started, they were resettled to several resettlement sites all over



The Narmada struggle in India empowered rural women like these to stand up to big dams that would drown their communities. Photo: Karen Robinson

Gujarat state. Almost 20 years on, they still have not forgotten their old homes. Due to the widespread practice across South Asia that women cannot own property, women were not made co-owners of the land. Even some widowed women were denied access to land and those who had received land were vulnerable to land grabs from their own men. This led to several unanticipated consequences for the overall family's well-being and health. As Baliben, a mother of four young children from the Vasava tribe, told me a few years after her family was forced to move: "The state has done absolutely nothing

for us women. How are we to survive here in this hostile environment? Money is always short. The land is stony and unproductive. We can't cook properly because we no longer have logs from the forest. Our babies are dying due to the absence of good nutrition from the forest and due to the terrible water. Our menfolk did not pay any attention to things like fuelwood, water and common land, usually considered to be women's responsibility. As a result the whole family is suffering."

In some cases, resettlement can lead to more egalitarian gender relations (for example, at a resettlement scheme in Zimbabwe women reported they were less constrained by past kinship patterns and had better relations with their husbands). My research in India revealed that resettlement for some tribal women gave them greater leisure time. However, their economic activities were severely curtailed due to the loss of forests and other common property resources. Compensation was not provided for non-monetized resources (such as women's use rights over forest and common property resources). Says Baliben, "I lost my independent income and am totally dependent on my husband for money. He sometimes taunts me and says, 'this is my money and my land. Don't ask me for anything.'"

In many communities around the world, women are less mobile than men. Displacement can have severe implications for the already restricted mobility of women. Often women are vulnerable to sexual and physical violence. In a number of relocation schemes I have studied, the increased availability of alcohol has led to a marked increase of domestic violence. As the men face powerlessness, women become handy scapegoats. Additionally, displacement is often accompanied by the covert or overt use of force. In India there have been cases where women protesting forced evictions have been subject to sexual molestation as a means of intimidation by the state.

Leading the Charge

It would be misleading to only portray women as the victims of male-dominated policies and programs in the context of large dams. In reality, women have often been at the forefront of movements to overcome forced displacement and the other dark sides

Continued on page 15

Watering the Grassroots

Training African Women to Solve Water Problems

by Women's Earth Alliance

More people die from unsafe water than all forms of violence, including war. Africa faces some of the most acute and devastating water problems in the world. African women must endure the worst of these challenges, yet they are often left out of development schemes and policies. The FAO recognizes that the “exclusion of women from the planning of water supply and sanitation schemes is a major cause of their high rate of failure.”

Comfort and Georgina were from a community in Ghana where water-borne illness and inaccessible safe drinking water were a reality; girls were missing school to collect water for their families, compromising their education and future potential. In 2010, these women leaders participated in a Global Women's Water Initiative (GWWD) training, a Women's Earth Alliance program in partnership with Crabgrass.

Over the course of the year, Comfort and Georgina learned appropriate technologies designed to address issues of water and sanitation in their community, including solar cooking and rainwater harvesting. They also mastered the principles of action planning, and refined their ability to teach others the importance of water, sanitation and hygiene (WASH). With the support of seed funding, ongoing refresher trainings, and a peer network of African colleagues, Comfort and Georgina successfully translated their new skills into action, launching a rainwater harvesting system at three schools in their community, and teaching others to do the same.

Prior to their efforts, these schools were not equipped with water or sanitation facilities – a problem that is all too typical across much of Africa. Students and teachers frequently have to bring water from home or fetch water during class time to provide for the school. Comfort and Georgina's rainwater harvesting systems transformed their community's local schools, providing teachers and students with improved access to clean water, and reducing the arduous, and sometimes dangerous, treks that students used to walk in search of water.

As caregivers and water harvesters, women spend countless hours fetching water for drinking, irrigation and cooking in developing countries. The United Nations Development Fund for Women estimates that “women and children in Africa alone spend approximately 40 billion hours every year fetching and carrying water – a figure equivalent to a year's labor for the entire work-

Fast Facts: Water Supply

- Women produce 45% of the food in Latin America, 65% in Asia, and 80% in Sub-Saharan Africa, but globally own just 1% of the land.
- In Southeast Asia, women provide up to 90% of the labor needed for rice cultivation.
- Women in Sub-Saharan Africa spend 40 billion hours a year collecting water.



These women (including Comfort and Georgina) have just been trained in improved water and sanitation practices by the Global Women's Water Initiative. Photo: Women's Earth Alliance

force of France.” Despite their long search, the water that women collect is often unsafe to drink. Access to clean drinking water is a human right, yet globally 1.1 billion people continue to suffer from inaccessible safe drinking water. The participation of women in developing solutions to issues of clean water and sanitation is essential to their success, yet women are often left out of policies related to these issues. Grassroots women leaders understand the needs of their community – but they need the resources, training and confidence to improve their community's health.

The Global Women's Water Initiative, a program of Women's Earth Alliance, works in 13 African nations to improve water supply through training and funding African women leaders as water and sanitation technicians. Our trainings empower African women leaders with water technologies, livelihood opportunities, seed funding, and leadership skills so they can design appropriate and long-term solutions to water and sanitation crises in their communities.

This March, our West African Women and Water Training Initiative equipped 15 teams of West African women leaders from Ghana, Liberia, Togo, Cameroon, Nigeria to provide over 75 communities with clean water and sanitation through their innovative water and sanitation projects. In 2011, 60 more African women will become GWWD Grassroots Graduates and will bring safe water solutions to their communities. ●

More information: www.womensearthalliance.org

Wang Yongchen, A Warrior for China's Free Flowing Rivers

by Katy Yan

A growing environmental movement has taken hold in China. Since the late 1970s, more than 3,500 Chinese NGOs have been formally registered, bringing positive change and a sharpened focus on major environmental challenges in China. A new book, *Stories of China's Environmental NGOs* (Foreign Languages Press), follows some of the movement's more charismatic leaders. One of the few women profiled in the book is Wang Yongchen, a senior reporter with China National Radio and founder of Green Earth Volunteers.

Wang has been called an "environmental poet," as she has spent her lifetime making poetry out of the places she visits with her camera, pen and recorder. She says: "I am often regarded as a woman who is building a grand environmental-protection project. But I think that I am part of nature. And I am only doing what everyone should be doing."

According to Wang, women have been critical to the growth of NGOs in China, and indeed are the majority of those participating in NGO activities. Women in China are also often the most negatively impacted by large dam projects. Wang says, "They lose the land, their cultural tradition and their livelihood, particularly those who are part of ethnic minorities. Their lives are urbanized, and they shoulder more of the burdens after the men have gone to work in cities."

Wang led an unprecedented public campaign to save the Nu River, which flows from the Tibetan Plateau, and becomes the Salween in Burma and Thailand. It is one of China's last free-flowing rivers.

In July 2003, China's "three parallel rivers region" – encompassing the basins of the Jinsha, Lancang and Nu rivers – was added to UNESCO's World Natural Heritage list. In August, the National Development and Reform Commission passed a plan to construct a cascade of 13 hydropower stations on the Nu. In response, Wang rallied support for protecting the Nu by organizing seminars, engaging fellow journalists, distributing pamphlets, and organizing a petition to call for an environmental and legal evaluation of the hydropower projects. In 2004, she organized a nine-day river expedition for reporters, which resulted in strong media coverage of the issue within China, and ultimately a photography exhibit in Beijing.

That year, Chinese Premier Wen Jiabao wrote: "Given the high level of social and environmental concerns over the large scale hydro project, further careful research is required in order to reach a scientific decision" – effectively halting the Nu River projects.

In an essay to mark the twelfth anniversary of Green Earth Volunteers in 2008, Wang wrote about her biggest challenge: "After



Wang Yongchen at the 2010 Rivers for Life meeting in Mexico.

six years of continuous action over the Nu River, we are still uncertain of its future. At the end of the day, will it flow freely as it does today? Will there be the same torrents, the gatherings of bathers, and the lovers on the beach? Will our faith, our participation, and our action keep the river rolling as it does today?"

Despite their victory in 2004, China's upcoming Five-Year Plan, due to be published in March, calls for ramping up large hydro projects like those on the Nu River, which have lain dormant for several years. The government proposes to approve 140 GW of new hydropower capacity – almost twice what the US, Brazil or Canada have built in their entire histories.

According to Wang, "A deteriorating environment makes economic development a 'mission impossible.' It is just like when people sacrifice health to make money and then have to spend that money to recover their health."

The new push for massive damming has her concerned, but she has not given up hope. "China's rivers are facing a huge challenge," she says. "We are now pushing for information disclosure and public participation so that China's rivers can have further protections." Her group and others will continue fighting to keep these rivers free flowing for generations to come. ●

For the Next Generation of Women River Activists...

by Katy Yan

Blues and greens swirl on the page and around a young girl who shares her love for her river. The river cools her in the summer, holds her up when she dives in, and takes care of her as she takes care of it. While rivers around the world are being threatened, polluted, and dammed, Maya Christina Gonzalez's book *I Know the River Loves Me* is a tribute to the relationship people, and especially children, continue to have with their rivers.

Each beautifully illustrated page carries a message, in both English and Spanish, about the personal relationship one

can have with their river. While never talking explicitly about water pollution, one of the pages shows the girl with bottles and a six-pack ring beside her, as she says, "The river takes care of me and I take care of the river. I only leave behind what already belongs to her."

This is a great book for young children, but it also reminds the rest of us about the power that comes from combining words and art, poetry and paint. The author was inspired by the Yuba River in California – and rivers in India, Puerto Rico, Brazil, and Mexico – to share her love of rivers with her daughter and a new generation of river protectors.

As you share this book with a child, it will remind you that no matter how threatened your river may be, it's never too late to protect, restore or fall in love with it again. ●



Interview

A Woman of Light and Hope

Laurie Guevara-Stone is the International Program Manager for Solar Energy International, a Colorado-based group that provides hands-on training in renewable energy around the globe. She shared her insights from her more than 20 years' experience in the field of clean, decentralized energy.



Laurie Stone, solar activist.

WRR: Describe what you do. What motivated you to enter the field of clean energy?

LGS: I coordinate all of our international workshops and trainings. We have five different workshops in Latin America each year, and we also train in-country organizations and technicians in renewable energy around the world. I first became interested in renewables when I was living in Nicaragua back in the 1980s. I saw so many people living without access to basic services that I realized that renewable energy technologies could make a huge difference in these people's lives. I decided to return to the US to learn about renewable energy, which eventually led me to SEI, and then to return to Central America to bring this information to places where it could help improve people's lives.

WRR: In your experience, what are key energy challenges for women in the developing world?

LGS: In the developing world, women are the main educators, health care providers, and food providers. They perform many chores that are made even more difficult by lack of access to modern energy services. For example, in rural areas of developing countries it's almost always the women who gather firewood, collect water, harvest crops, grind the grain and cook the food. In some areas women spend up to eight hours gathering firewood to cook with, and respiratory diseases are among the biggest killers of women in developing countries, from standing over smoky cooking fires all day. By teaching women how to incorporate renewable energy technologies into their lives, such as solar cookers or fuel-

efficient stoves, solar water pumping systems, solar, wind or water-powered rural electrification projects, these can all help alleviate some of the difficulties women face.

WRR: How can electricity change the lives of women particularly? How can having, say, a solar panel change a woman's life?

LGS: Access to electricity can dramatically improve the lives of women in the developing world. One small solar panel can provide enough electricity to run some lights and a small appliance. Having electric light means not having to breathe the toxic fumes from kerosene lanterns, and not having to strain their eyes under poor quality light to get work done. It means women who have never had a chance to study can go to school at night, and their children can study at night. It means safely being able to walk to meetings at night due to solar powered street lights. Access to electricity also means access to new information from radio, television, and computers. It is also a way to help women start micro-enterprises and earn a much-needed income. Energy from one small solar panel is enough to run a small "licuado" stand, jewelry workshop, weaving workshop, video center, and many other small enterprises.

WRR: Can you give an example of how women you know have been able to use solar in creative ways to improve the lives of their families or communities?

LGS: There is a group of women that we work with in Nicaragua, called the Mujeres Solares de Totogalpa, who have used solar energy technologies to drastically improve their lives. They live in a rural area of northern Nicaragua, in a small community of about 200 homes. They all cooked over fires, and when introduced to solar cookers by a Nicaraguan NGO, Grupo Fenix, realized the potential that solar cookers had in their community. They now construct, use, and sell solar cookers, and they built their own solar center out of adobe blocks that they made themselves. They sell solar products such as solar roasted coffee, solar dried fruits, and solar baked goods, and are about to open a solar restaurant. They also have an alternative currency system which is based on the volunteer hours they work, and through that program have almost all installed solar lighting systems in their homes.

WRR: What women particularly inspire you?

LGS: There are so many women around the world who are doing amazing work for their communities. The ones who inspire me the most are the ones who are not afraid to fight for their rights and beliefs, under very harsh circumstances, such as Meena, the founder of the Revolutionary Association of the Women of Afghanistan. All of the women who refuse to sit back and accept the unjust fate life has dealt them, but who stand up and fight their way out of poverty, whether through legal rights, renewable energy, education or governmental change – all are an inspiration to me to keep doing my small piece. ●

Spotlight on Clean Stoves

Andree Sosler, Executive Director of Darfur Stoves Project, talks about the importance of clean stoves

Improved cookstoves are critical to improving both the energy and health needs of women in developing countries. Almost half of the world's population – three billion people – cook their food and heat their homes by burning coal and biomass, including wood, dung, and crop residues, in open fires or rudimentary stoves.

According to the World Health Organization, exposure to smoke from traditional cookstoves and open fires causes 1.9 million premature deaths annually, and is the fourth worst overall health risk factor in developing countries. As the household members most likely to cook meals, women and children are most affected. Cookstove smoke contributes to a range of chronic illnesses and acute health impacts (especially respiratory diseases). Reliance on biomass for cooking and heating forces women and children to spend many hours each week collecting wood. In humanitarian displacement settings, such as where we work in Darfur, women also face severe personal security risks when they collect fuel and some must trade their food aid rations for cash to purchase wood. Cooking over open fires also increases pressure on the local environment and contributes to climate change at the regional and global levels.

Improved cookstoves reduce the negative effects of cooking by burning fuel more efficiently and reducing the amount of wood (or other fuel) needed to cook each meal by at least half. Improved stoves also reduce the harmful emissions by as much as 90%, which translates to healthier women and a healthier environment.

On involving women in the design of stoves they will use.

We involve women in the design process for many of the same reasons that consumer goods companies here in the US survey their potential customers. People are much more likely to embrace new technologies if the technologies come with a perceived benefit and if they do not require significant behavior changes. In the case of Darfur, we needed to make sure that the stove is adapted to the pot shapes and sizes, the types of food, cooking methods, and the windy conditions and sandy terrain in Darfur. The women even named the stove in Arabic, calling it the “Five-Minute Stove” because it cooks food quickly. This collaborative approach ensures that the stove meets women's needs, which in turn leads to widespread adoption.

One great example from our work in Darfur was the need for feet and a tapered collar on the stove. The Berkeley-Darfur Stove



Women demonstrate an improved cooking stove in a Darfur refugee camp. Photo: Darfur Stoves

was originally modified from another stove, which was made for flat-bottom pots common in the region of India where it was developed. When our focus group of women in Darfur tried to make their traditional porridge using the round bottom pots ubiquitous in Darfur, the pot and stove would tip over. One woman was needed to steady the stove with a stick while the other stirred, but this was not an ideal solution. We changed the stove design to accommodate the round bottom pots – all four sizes of them – so it would no longer require a second person to steady the stove

and pot. For further stability, we also added feet to the stove and holes to stake the stove into the ground. We would have never known about the need for these modifications if we hadn't asked Darfuri women.

On progress.

This fall Hillary Clinton announced the launch of the Global Alliance for Clean Cookstoves. The Alliance's “100 by 20” goal calls for 100 million homes to adopt clean and efficient stoves and fuels by 2020. The Alliance will work with public, private, and non-profit partners to help overcome the market barriers that currently impede the production, deployment, and use of clean cookstoves in the developing world. Darfur Stoves Project is a member of the Alliance, and we are optimistic that the it will help raise public awareness about the importance of cookstoves and attract more funding to cookstove projects. So far, we are very pleased with the Alliance members' commitment to honest discussion about the failings of past cookstove campaigns, as a result of engineers designing stoves that they liked which too often were not used by the women in developing countries for which they were intended.

On inspiration.

I have been so inspired by all the women I've met in Darfur during my field trips there. Despite the grave circumstances of poverty and conflict they face every day, they continue to persevere, to laugh, and to hope. ●

More information on Clean Stoves:

The Partnership for Clean Indoor Air (<http://pciaonline.org>)

Global Alliance for Clean Cookstoves (<http://cleancookstoves.org>)

Darfur Stoves Project (<http://darfurstoves.org>)



Our Rivers, Ou

The movement to protect rivers and rights is full of amazing women leaders. We asked just a few of them to talk about the rivers they love. Their inspirational essays give us hope that the link between humans and healthy rivers is not yet irreparably broken.

Our River Is Our Name

by **Caleen Sisk-Franco**,
Tribal Chief and Spiritual Leader,
Winnemem Wintu Tribe, California

The name of my tribe, Winnemem Wintu, translates to Middle Water people and is taken from the name of our river, the Winnemem Waywakit, which is bounded by the Upper Sacramento to the West and the Pit River to the East.

Now known to most as the McCloud River, it rises from glacial waters in the Cascades, and it runs so clean you can clearly see the rocks, sand and insects that populate its bottom. A series of well-known waterfalls cascade over its basaltic lava beds in feathery ribbons of white and foam.

Because of its beauty, most people here in Northern California probably believe the McCloud is healthy and pristine. But that is only because they don't remember, as my tribe does, how it used to be before it was butchered by dams and left clinging to its life.

The Shasta Dam was built during World War II and flooded the lower 26 miles of our river under its reservoir. It also blocked our sacred relative, the salmon, from traveling to its traditional spawning places. In 1965, the McCloud Dam was built on the upper river and started diverting water to the Pit as part of a lucrative hydroelectric project.

Because of these diversions, our once powerful and rushing river, which once had a winter flow of 6,000 cubic feet per second, now trickles at a mere 200 cfs.

Our river is starved on one side and swollen on the other. And yet they are not done with it. As we fight to bring our salmon back, we also fight against a proposal to raise the Shasta Dam as well as a McCloud Dam relicensing that could sustain the crippling diversions for another 50 years.

Just as they have carved up our river, so too have they tried to break our bond with it by extricating us from our traditional lands and refusing to acknowledge our history and right to exist. But they underestimate our resilience: our spiritual connection to our river remains strong and unbroken.

Our river is our name. And we are willing to die to defend it.

Dams Equal Death

by **Larissa Elena Duarte (Panama)**

The Rio Cobre is our earthly paradise, our joy, our pride, our support, our identity and especially our home. The river does not belong to the community, we belong to it.

That is why when we learned they want to dam it for electricity, which is not for the benefit of our communities but for the profit of private businesses, we get angry. We will fight so they don't deal with the river as a commodity.

It has been almost eight years since rural women, with their children and husbands, began their struggle to give voice to the small but brave Rio Cobre. This voice has been heard nationally and internationally.

We feel responsible for not quitting this fight, we feel we are guardians of the Rio Cobre. There is



Larissa on the Rio Cobre

a spiritual connection between the mind and the heart that pushes us to continue this fight despite adversity. Every time we see the little ones bathing, fishing and enjoying the water in the river, our hearts and minds again are filled with new energy and hope.

Rivers are living beings that have a voice, but not all have learned to listen and understand it.

It is our responsibility, as guardians of the river, to raise its voice and made it understood by all. The source of life transmitted by rivers has to be preserved, today and tomorrow, always. It does not matter if we lose because we maintain the flame of resistance to defend life. We should not be afraid of repression, to the indifference of people and the loneliness of the struggle. We build the future with the actions we take on now, and fear is not our ally, it is our enemy. Solidarity and conviction in our ideas are our best allies. The brave never give up, they move forward.

Love at First Sight

by **Dipti Bhatnagar**

The first time I saw her I was awestruck. She was everything I had heard about, and more. I had just turned a corner and reached the top of the hill near Village Mal,



Caleen Sisk-Franco

when I looked down and saw the mighty Narmada River. It was monsoon 2002, and it had been raining all night, causing the river to slowly rise at the banks. The river was also welling up inside me. Only later did I realize how much my life was changed at that moment by the Narmada, and the historic struggle to save her, which I have been a part of since that momentous day.

The Narmada Bachao Andolan (NBA, or Movement to Save the Narmada River), recently commemorated 25 years of constant struggle against the Sardar Sarovar Dam project and other large dams that threaten to turn a vibrant river valley into nothing but a series of reservoirs. This one dam, which is still under construction, is slated to directly submerge the hearths, homes and farms of almost 100,000 people, including thousands of indigenous people of central India. This movement has shaken up behemoths such as the World Bank and the Indian government, helped insert the voices of the most marginalized people into



Liane interviews people who would be affected by Mphanda Nkuwa Dam on the Zambezi.

water policy decision-making in India, and continues to speak truth to power.

Today, thousands of homes and lands are already under water from this dam, and the people that lost everything are still waiting on higher ground for justice, for fair and dignified rehabilitation. However, hundreds of thousands more homes and lands and thickly populated villages have been spared the horrors of flooding and displacement. The only reasonable step forward is to permanently stop the dam at its current height, and provide rehabilitation to all affected.

Large dams have come under immense criticism worldwide in the last two decades. Yet the dam industry continues to spread

its tentacles of outdated dangerous technology, today under a new guise of providing “clean hydropower energy” in a changing climate. The ongoing Narmada struggle against impending submergence is a constant reminder to me of the importance to continue the fight against dams, and to protect rivers.

The Rivers Will Rise Again

by Liane Greeff

The earliest river I remember was the nameless one across the road from our house where I grew up – just a small stream flowing through the leafy suburb ironically named Bergvliet, which means mountain stream. One day they came with bulldozers and concrete pipes, and when we woke the next day, the river was gone, completely gone. Similarly, my sisters used to visit the wetland around the corner from our house to sneak a cigarette until that too was concreted over and became the M3 – the main motorway from the Southern Suburbs into the center of Cape Town. Neither the people who live in my old street or the majority of those who commute daily to the city center have any idea of the stream and the wetland that have disappeared in the name of development and urbanization.

Not knowing what is lost is part of the tragedy of rivers for me – that they are destroyed or compromised and the new people don't even know what once was. So much of our planet shares this fate, but the rivers are a special symbol of both the flow and the web of life, which we as a species are destroying river by river, and most of us have no idea what has gone. I am strengthened, however, by my belief that despite the destruction, the rivers are strong and will return in time, and all that humanity does is temporary.

My vision for rivers in the 21st century is to safeguard and celebrate our remaining rivers, restore degraded rivers, and raise awareness of the valuable contribution rivers make to life on Earth. Through my organization EcoDoc Africa, which I started with my partner Roy MacGregor, we aim to achieve



Dipti speaks out to protect the Narmada River.

this by producing documentary videos and photographic essays, and work in solidarity with river activists throughout Africa and around the world who stand united behind the cry “Rivers for life, not for death! Agua para la vida, no para la muerte!”

Homage to Colombia's Sogamoso River

by Consuelo Acevedo

I woke up and felt my body wet, floating in the river, gently rocked by the water and listening to a dream induced like music born of her womb. Time does not exist, not even the certainty of existence. Here everything is diluted.

I've been wondering, how will the river change when they build the Hydrosogamoso Dam? I've heard that they are calling the great mass of cement that will divide up the river “La Tora,” which in the language of the Yariguí Indians means “place overlooking the river.” It's a mistake to call it that way, because they are destroying this place. That is the way of the cynics who have the money. They take the language of our ancestors to confuse us. To fill us with doubts.

Everything will change. Neither the papayas, the lemons, the avocados or bananas will grow in this fertile valley ever again; it will be under water. Even the cattle grazing in the pastures are being forcibly evicted. What will happen to the manatee that live in the wetlands of the lower river? They are already predicting the decline of the wetland, as it were a natural process; they are not complying with the Ramsar Convention agreements which are agreements to protect these rich ecosystems, and which the Colombian government ratified. We already know what is going to be the future for a great number of families, they will be statistics of the poor in the cities.

Suddenly the wind ceased. I don't know if I am in my mother's womb or in the riverbed. It is easily confused, the two areas are different yet the same. ●

Where Are Women's Voices in Uganda's Dam Planning?

by Betty Obbo

"The Bujagali dam project will bring tremendous opportunities you cannot afford to miss! It will transform your lives – it will provide good jobs for you and your children, your houses will be lit by electricity, clean running water will flow in your bath taps, good schools for your children, modern health centers and good roads running through your community." These were the tantalizing words told to the project-affected people by the Ugandan government and the Bujagali Dam developers to lure them into accepting the project, now under construction on the Nile River.

The Bujagali dam-affected people viewed this as the kind of life they deserved in exchange for their land for the project. Without a clear understanding of the implications of the project on their long-term livelihoods, they readily surrendered their land and excitedly anticipated a better life. Little did they know that the promises made to them by the dam developers and backed by the Uganda government would be unashamedly broken, leaving them hapless, hopeless and at the mercy of fate.

All that government and the developer wanted was a hydro-power project. The project-affected people were just something to deal with as quickly as possible, and in the process many shortcuts were taken. Consequently, consultations in the project development process were carried out more as a formality to secure approval of World Bank funds than to ensure that ultimately, the project delivers development to those said to be the beneficiaries of development, Uganda's poorest. The people largely remained ignorant of what was going on. Their culture, rights, democracy, ethics and morality were not taken as critical to the success or failure of the project.

Women's participation in the project development process was limited. When project developers wanted views on issues regarding land and compensation, they targeted mainly men, leaving out women who play an important role to ensure food security for the family, and are the real managers of environmental resources. Yet one of the recommendations of the World Commission on Dams emphasizes the involvement of all stakeholders as a core element for meaningful dam development processes.

Women's involvement and effective participation in all stages of project development would have ensured a more gender-sensitive development with a much higher chance of meeting the needs of affected communities.

Bujagali failed to meet the African Development Bank's policy on gender (among other areas of non-compliance with required policies at that institution). According to the independent inspection body at the AfDB, "it does not appear that there was adequate consultation with affected women or that all their concerns have been adequately addressed in the resettlement and compensation plans."

Women's experiences

Rukia Kauma, now living in Naminya resettlement village, offers a firsthand view of how people's livelihoods were affected: "As the pivot of production in my family, I now have to work for long hours on poor soils, which produce so little compared to the rich yields I used to realize from the fertile productive soils by the riverside."

"When it comes to clean water and fuelwood, I now have to walk for about two hours, through sugar cane plantations and forest to fetch water and firewood," she continues. "I expose myself to risks of rape and harassment from unscrupulous men who have made it routine to waylay women and young girls on their way from the forest. I am forced to carry a heavy bundle of firewood to keep me for a few days. Sometimes I choose to prepare one meal a

day, or light foods that do not require a lot of energy to cook. Sadly, this is to the detriment of my family's health."

Bujagali resettlers had to face so many changes that were disruptive and stressful. One large group of people were resettled years before dam construction started, as the company that was then going to develop the dam – the US-based AES – left Uganda abruptly after resettlement had begun. This left about 100 families in limbo, in a resettlement camp far from their traditional lands, without many promised amenities, and living in houses that did not meet their families' needs.

One major problem for this community was the lack of primary schools in the area. Left with no option, the community turned one of the houses in the resettlement camp into a school. But this "school" could neither accommodate the growing number of children in the community nor offer a good learning environment. Florence Nyombi, the founder of the school, led the community in pushing the developer to provide a proper school.

Christine Nabwire, also affected by the project, described the difficulties that resettlement brought: "There is no shop or market nearby. It now takes me not less than one and half hours to walk to the market. Public transport is not available in the resettlement village. Occasionally, commuter motorcycles ride through the community, but you can only be lucky to catch up with one, and the cost is too expensive for me.

"Sometimes, when I realize a good yield of tomatoes and cabbages from my small garden, beyond what my family can consume, I have to sell the excess and use the money to buy other necessities. But it is a pain to get the fresh vegetables to the market as there is no reliable transport – so I have to carry it for a long distance on my head.

"Fishing was our mainstay by the riverside, before we were shifted to the resettlement camp. My husband was a fisherman. Every day I was assured of enough fish for my family's meal. Today, the main free source of proteins for my family is no more! If we have to eat fish, we get it at a cost. My husband and I also used to support our family from the sale of fish. Now we have to devise an alternative source of income, and work double hard to make ends meet."

The Bujagali Dam has been championed by government and its construction has been overseen by heavy military gear. The project was widely criticized by civil society organizations inside and outside for its environmental, social, economic, spiritual and cultural impacts. Despite all these concerns, the Uganda government, the World Bank and African Development Bank marketed the project as the best option for the country to escape energy scarcity and spur development.

In fact, for most Ugandans, the dam is not the best option for meeting energy needs. As the project begins producing power (expected later this year), electricity prices are on the rise, and the dam is likely to lead to further tariff increases. What seems clear is that the people who were resettled for the dam will never see any electricity from it, and will continue to suffer from its poor planning process and lack of attention to benefit-sharing for generations to come. ●

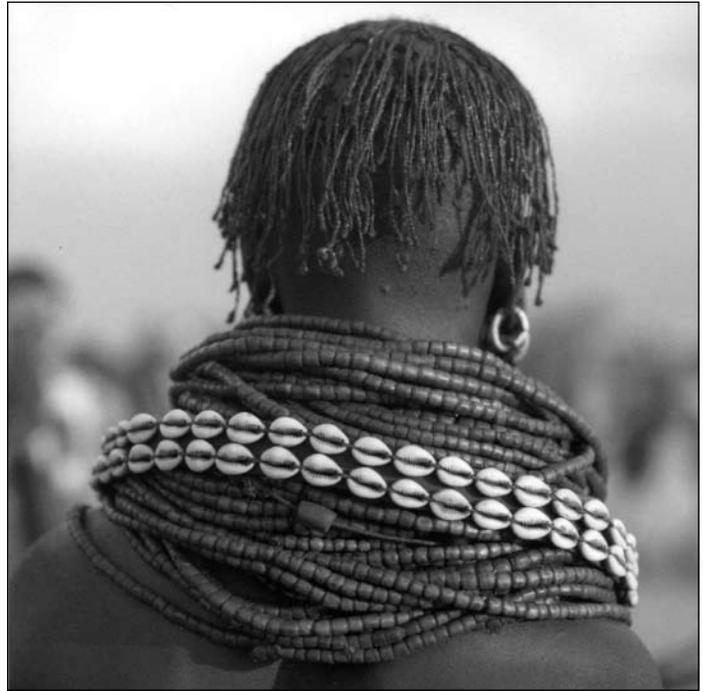
The author is the Information Officer for the Ugandan NGO National Association of Professional Environmentalists, which for many years worked to defeat the Bujagali Dam and promote better alternatives to large dams.

This River Provides for Us: One Woman's Story

More than 500,000 indigenous people in two countries are threatened by the construction of the Gibe III Dam on the Omo River in Ethiopia. If built, the dam would destroy the fragile ecosystem of the Lower Omo Valley and Kenya's Lake Turkana region. This is one woman's story from that struggle. For safety reasons, her identity and tribe have been changed.

We live here because of the Omo River. No other reason. Our culture is here. This land belonged to our fathers and father's father's father. All Omo people grow up here along the Omo River, get married here and have their children here. We depend on the Omo River for our fish, for planting our sorghum, to water our cattle and goats. We are busy with our own river working and feeding ourselves. All the Omo people, Dassanach, Mursi, Nyangathom, Kara, Kwego, this river provides for us, like mother's milk for our babies, it feeds us. Without talking to us, to any of the tribal elders, the government makes the decision to build the dams and to take our water. Last year the river was low, low, too low, and we did not get much sorghum from the banks of the Omo. The harvest was not enough to feed us. We are OK until the next harvest, but after that we are not sure what will happen.

We might not be educated, but we know, we know what is going on. The government people start explaining to us about the dam. Talking smoothly, trying to convince us, but they have already started the project. And when we follow everything they say from their mouths, we realize they are cheating us. They are taking this river to sell the hydroelectric power. Without knowing us the government continues doing their business and is ready to sell this river and they are feeding and raising their children with that money, but what about us? What about our children? The government is lying to us. They tell us "there are rumors," and to not believe what the *ferenji* (foreigners) say.



A woman from the Omo Valley. Photo: Jane Baldwin

They say, "The *ferenji* are lying. We are not going to take all your water. We will take some, but you let us know when you need water and we will release a bit for you."

We say that if this river is taken from us, we might as well kill ourselves so we won't have to starve to death. Omo people need support. We depend on the river, so wherever you go, tell people we need their support. Tell everyone. ●

The Zambezi River: My Inspiration

by Anabela Lemos, Justica Ambiental



Anabela on the Zambezi.

The Zambezi River is the fourth largest in Africa and the largest system flowing into the Indian Ocean. Born in Zambia, it crosses Angola, Namibia, Botswana, back to Zambia, then Zimbabwe and finally flows through the heart of Mozambique, pumping life into one of the most diverse and important ecosystems in Africa.

The first time I saw the Zambezi, I fell in love with this marvelous river and its people. A night on the river is unforgettable, the peacefulness of the night with a sky full of stars, the water

flowing, the sound of hippos and of drums in the distance – it is one of the most wonderful and magical experiences. The more time you spend along the Zambezi the more you understand its beauty. Seeing the way traditional habits harmonize with natural patterns, how floods link up with floodplain farming, the way wild-life migration patterns and mating timed themselves to seasonal changes of the river. A beautiful coexistence has been achieved through millions of years of coevolution.

But as with many things in Africa, great beauty is often mixed with abuse and suffering. In the case of the Zambezi, large dams such as Kariba and Cahora Bassa have been at the heart of this abuse and suffering. The dams have artificially regulated the river, killing the seasonal patterns responsible for so many natural and social functions. Now wetlands no longer receive fresh flood water as often. Seawater is creeping inland, making farming impossible in once-fertile areas. Subsistence farmers lose their food crops from unexpected dam releases. The dams have turned floods from a blessing into a curse. And all this to produce energy for export while less than 14% of Mozambique's population has access to electricity.

Now the Mozambique government wants to build another megadam, Mphanda Nkuwa, which will only worsen these existing problems.

I have a dream that one day the Zambezi River will be free from the impacts of dams – that it will once again support millions of people and the biodiversity that has made the Zambezi so special. I have been fighting for this for a decade and will continue to fight till my end. I cannot accept the greed, corruption and lack of insight that threaten this ecosystem, which brings so much good to so many. The need for energy cannot supersede the right of the people along the Zambezi to live. The past has shown that the consequences of dams can be a life or death matter for many. Rivers are life! ●

News Briefs

by Kate Ross



Atlantic salmon

It's the law: protect endangered salmon

Environmental groups in Maine are taking dam owners to court to make them start protecting endangered salmon.

Friends of the Merrymeeting Bay and Environment Maine are taking groundbreaking legal action against the owners of seven dams along the Kennebec and Androscoggin rivers in Maine, in an effort to elicit immediate action in protecting the nearly extinct wild Atlantic salmon. The lawsuits, filed on January 31, are the first to directly target private companies to protect fish. The groups claim that dam owners are violating the Endangered Species Act by not giving salmon safe passage upstream. Salmon are being killed as they pass through the dam's spinning turbines. The dams also harm the salmon's natural habitat and consequently their behavior.

"Unless dam owners stop stalling on basic salmon protection measures, the clock will strike midnight for the remaining Atlantic salmon in the Kennebec and Androscoggin rivers," said Ed Friedman, Chair of Friends of Merrymeeting Bay. "As an immediate first step, owners must prevent salmon from swimming into spinning turbine blades," he added.

The wild Atlantic salmon were declared endangered in 2009 when the federal agencies expanded Maine's endangered species listing to include the Kennebec, Androscoggin and Penobscot rivers. Before the dams were built in the nineteenth century, the Kennebec River was home to an estimated 100,000 salmon. Since then the number of salmon returning to the rivers has drastically declined. In 2010 only five adult salmon returned to the Kennebec and ten to the Androscoggin.

The groups charge that dam owners have hindered salmon recovery by refusing to implement simple protection measures – such as installing devices to divert salmon from turbines – that have been adopted elsewhere. While they are willing to see legal action through to the end, they hope to be able to deal directly with the dam owners and come to a rapid resolution, so that salmon-protection measures can be implemented while there are still a few fish left to save.

Cost of Uganda dam doubles

The cost of the proposed Karuma Dam in Uganda has increased from \$1.2 billion to \$2.2 billion, according to the government newspaper *New Vision*. The escalated cost is a result of rising prices for raw materials and high interest rates. The government says it plans on using a public-private partnership to carry out the project and have already appealed to interested international companies. Uganda's other recent major hydropower dam, Bujagali, has also seen its costs rise, and is considered by some to be one of the world's most costly dams per megawatt produced. The 250 MW Bujagali Dam is expected to cost \$860 million by the time it is completed a year from now.

Geothermal energy to overtake hydropower in Kenya

Hydropower dams currently supply 50-60% of Kenya's electricity supply. But drought in the past two years depleted water levels in reservoirs and led to power rationing, hindering East Africa's largest economy. In the next three years, government-owned developer Geothermal Development Co. aims to make geothermal the main source of power in Kenya, surpassing hydropower as the largest contributor to the country's electricity grid and solving Kenya's hydrodependency problem.

Kenya is the largest producer of geothermal energy in Africa, thanks to its location in the Great Rift Valley, an area of high geothermal activity. Some estimates put the Rift's potential at 15,000 MW. Geothermal Development Co. has set a target of developing 200 MW of geothermal per year over the next decade. They aim to drill 566 geothermal wells by 2020, for a total capacity of 2,336 megawatts of steam-generated electricity. Geothermal energy currently accounts for 12% of Kenya's power.

Kenya also recently approved a wave-power project that is expected to generate 100 MW. It would be East Africa's first wave plant.

Chile's hydropower squeeze

Drought has dried up hydroelectric dams in Chile, sending electricity costs soaring and making renewable power sources like wind, solar and geothermal more attractive.

"Renewable energies require a greater investment but they have low production costs," Mabel Weber, an energy analyst with Banchile Investments, told Reuters wire service. "The more prices rise, the more viable alternative energies look." Energy prices have nearly tripled in the past five years.

Chile's mining sector, which consumes a third of the country's power, has shown interest in stabilizing its energy costs by investing in new technology now that copper prices are at record highs. The nation is the world's top copper producer.

The drought-crippled hydro sector also raises doubts about the wisdom of building more dams in Patagonia.

Unsafe dams in Massachusetts

A new report by state auditors reveals that 100 dams in cities and towns across Massachusetts were found to be unsafe. Outgoing state auditor Joseph DeNucci reported that the dams were in poor condition and pose a potentially severe threat to people and property nearby. The estimated cost to repair these dams is \$60 million. This expense falls on the shoulders of the cities and towns in which the dams are built, and therefore competes with many other municipal funding responsibilities. In his report DeNucci highlights the fact that expenditures such as dam repairs often take back seat to other issues, especially in this tight economy.

DeNucci's report recommends that emergency plans be created for every "high-hazard municipally owned dam" to alert nearby residents if dam failure is imminent. It also suggests that the largest dams in the most densely populated areas be given priority for repairs. There are 3,000 dams in Massachusetts, and only half regulated by the state's Office of Dam Safety.

India to tap tidal power

British developer Atlantis Resources will install a 50 MW tidal farm in the Gulf of Kutch in Gujarat State, using underwater turbines to harness energy from the Gulf's extreme ocean currents and tides. This proposed renewable energy project is a landmark not only for India, but also for Asia, as it will be the region's first commercial-scale ocean-energy project.

Work on the project is expected to begin later this year and will be completed in 2013.

India is currently Asia's third largest energy consumer and the world's fifth largest emitter of greenhouse gases. The project will bring important economic and environmental benefits to the region and will use local skills and manufacturers as much as possible. The state plans to tap tidal, solar and wind to produce more than 7,000 MW of power in coming years.

Dams in Burma won't benefit Burmese

Only 1% of the energy generated by 21 major dam projects planned for Burma will actually benefit Burmese people, according to a new study. As the primary investor in these dams, China will receive almost of half of the electricity, while 38% of the electricity will go to Thailand and 3% to India. The remaining 10% will go to the Burmese military and large-scale development projects in Burma.

These findings were presented at a seminar on the Thai-Burma border, where groups researching the impacts of dams on rivers in Burma noted that Chinese companies are investors in all but one of the 21 dams being constructed in Burma. Chinese investment in the Tasang Dam on the Salween River is expected to be \$10 million. This dam will be the largest in Burma.

Bangladesh, too, has laid claim to part of Burma's hydro-power capacity, with plans to buy the majority of the electricity generated by four projects under construction in Arakan State.

None of these projects will provide much electricity to the Burmese people. Representatives from the Arakan Rivers Network called for these projects to be put on hold until Burma has a more accountable government.

Wind power now at record low prices

Wind power is becoming an increasingly more competitive source of power due to increasing demand and the falling price of wind turbines. Results from a survey done by Bloomberg New Energy Finance, a market research firm, show the cost of onshore wind power to be at a record low, making it competitive with electricity from coal-fired plants in some regions. In Brazil, Mexico, Sweden and the United States, the cost of electricity generated by wind farms is \$68 per megawatt-hour, compared to \$67 per megawatt-hour for coal power and \$56 per megawatt-hour for natural gas.

Zambezi dam gets ahead of itself

The Mozambique government approved the Mphanda Nkuwa Dam, planned for the Zambezi River, even before the project's environmental assessment is complete (that is due in June), and says construction will start in 2012. But industry insiders

believe the project proponents may be under the influence of a bit of "irrational exuberance," to use Alan Greenspan's phrase. Africa Energy Intelligence recently reported that, "The timetable for the construction of Mozambique's 1,500 MW Mphanda Nkuwa Dam ... appears somewhat optimistic to many." The main sticking point is a lack of a buyer for the electricity. A contract with South African utility Eskom is a prerequisite for the project to be financially viable,

and at this writing Eskom still had not signed on the dotted line. The dam also requires a US\$2 billion transmission line, which also has not attracted financing. Thus far, only the European Investment Bank has agreed to finance part of the dam's technical and environmental studies.

The project would be built by Brazilian firm Camargo Correa. China originally expressed interest in funding the project, but does not seem to be involved in it at this time.



Indigenous leaders protested Belo Monte Dam in February. Photo: Reuters/Ueslei Marcelino

Belo Monte Dam Construction Closes In

Initial construction activities on the Belo Monte Dam – including forest clearing, the creation of easement areas, work camps, and the paving of roads to import construction equipment machinery – are on the verge of starting on the Xingu River in the Brazilian Amazon. Lawmakers and activists are working around the clock to prevent the start of these activities, fearing that if successful, they will provide a fait accompli for the implementation of the project as a whole. At press time, a federal judge had ordered construction to stop.

The Brazilian government has embarked on a tepid public relations campaign in the last few weeks, issuing briefs and holding press conferences in an attempt to dispel what are now well-documented arguments that Belo Monte will be an inefficient and costly affair. The project has unconditional support by the new president, Dilma Rousseff.

In February, a petition with more than 600,000 signatures from across the globe was handed to President Dilma's office, asking for her to immediately cancel the project. Major Brazilian media outlets have fiercely criticized the severe risks the dam would bring to the people of the Xingu, and its impacts on Brazilian taxpayers. Seemingly deaf to these criticisms, project developers are being allowed to skip due diligence by a weak interim president at IBAMA, the national environment ministry, so they may attempt to begin construction before the fast-approaching rainy season begins on the Xingu.

Zach Hurwitz

How Brazil's Dam Boom Hurts Women

by Soniamara Maranhão

The building of hydroelectric dams in Brazil has been marked by a lack of respect for the environment and the affected communities, and especially of women. In Brazil, more than 2,000 dams have been built, resulting in the eviction of more than one million people from their lands. The federal government has proposed the construction of 1,400 more dams over the next 20 years. These major works come with false promises of jobs and development, respect for nature, “cheap” energy for the people, and guarantees of families’ right to compensation.

We cannot place all the responsibility for unequal gender relationships on hydroelectric projects, but we do know that they tend to worsen them. The announcement that dams will be built triggers different reactions in men and women. In most cases, women show strong resistance to leaving their territory and find it hard to assimilate to such a major change of place. Some of the men are more easily convinced and see a possibility of financial compensation for relocating. One reason for this is that traditionally, men relate to money-generating activities more than women.

Most of the people affected by the dams in Brazil live in rural areas and have a close relationship with the land. Local natural resources supply them with food, firewood, medicines, and house-building materials, among other things. In this respect, women are the first victims of environmental degradation resulting from dams.

The fact is that 70% of the families affected by dams in Brazil have not received proper compensation. Women often lose their market gardens and their autonomy. This change not only implies the loss of a woman’s position of power and decision-making, but also an increase in her economic dependency.

The process of community relocation always leaves some families who remain behind, as they were not directly affected by the flooding of the reservoir. This has resulted in the loss of family ties, and with the emptying of community gathering places such as churches. As the communities are emptying, public transport becomes scarcer, rural schools and local health centers are closed down. Imagine the impact on the lives of women who have to look after the family, the children, older people, the handicapped, etc. With the shortage and often the suspension of public transport,

Indigenous Leaders on Grand Tour to Protect Amazon

A group of Amazonian indigenous people (including two women leaders) from Peru and Brazil recently toured Europe to raise awareness about how dams in the Amazon Basin threaten their cultures and the environment on which they depend. Ruth Buendia Mestoquiari (Peru), Sheyla Juruna (Xingu region of Brazil), and Almir Suruí (Rondônia, Brazil) met with representatives of donor governments and companies to discuss the problems with the dams, which may draw European support. In Geneva they met with the UN High Commissioner of Human Rights, and the Special Rapporteur for Indigenous Peoples.

In Paris, they had meetings with companies that comprise the consortium for projects in Brazil and Peru. They held a protest in Paris at the Human Rights Plaza against Suez Company, also a financier of dam projects in Latin America. In London they met with members of Parliament and the Brazilian and Peruvian embassies.



Sheila Juruna, who would be affected by Belo Monte Dam, led a protest in Brasilia last month. Photo: Evaristo SA/AFP/Getty Images

women’s mobility and their potential access to jobs, study and leisure activities become harder.

These populations were expropriated not only in the legal sense of the word. These people who lived off the rivers and their banks lost their material working conditions and were uprooted, transplanted geographically and culturally, losing places that are not only of great sentimental value but more importantly, ways of life that can never be rebuilt nor measured in terms of money.

Women as Merchandise

The arrival of huge numbers of male workers to build the dams has resulted in increases in sexually transmitted diseases, particularly AIDS. Cases of teen-age pregnancy increase, and these young mothers are immediately abandoned because once the dam is built, the workers move on.

Shockingly, one of the strategies used by the companies to lure young men to jobs at remote dam sites is to install prostitution businesses, popularly known as “zones,” near the workers’ housing.

An article by Leandro Prazeres for *Jornal A Crítica* reveals how the prostitution zone operated at the two largest hydroelectric dams being built in Brazil, Jirau and Santo Antonio Dams, where 10,000 men were brought in. He writes: “Thousands of women from throughout Brazil migrated to the region looking for a living. In two years Jaci-Paraná in Rondonia became a huge open-air sex market, operating 24 hours a day, where women and adolescents are the main raw material.” The article states that a police investigation found that construction companies finance the brothels and deduct prostitution fees from workers’ salaries.

The article continues: “Dozens of wooden brothels quickly stood up on the side of the main road on Brazil’s western Amazon, fighting for space with drug stores, and churches. ‘This town became a hell. Women sell their bodies in plain daylight. I have a daughter and try to protect her as much as I can,’ said Maria Martins.”

These are just some of the losses suffered by women as a result of dam building in Brazil (and elsewhere in the global South). The good news is that the movement of dam-affected women is growing in Brazil. Our goal is to place issues that directly affect women and gender issues on the table and address them. Our goal is to denounce this violation of human rights and ensure these issues are not invisible anymore. ●

The author is with the Movimento dos Atingidos por Barragens.

connects them to their families and their families to their homeland. When the dams are built, the river loses its eternal connection with the land, forests, river banks and... to itself. They feel responsible to protect these natural riches.

"My grandmother took me to the river, to listen to the earth's song, to the river's music. Each voice is the essence of nature; women are the guardians of nature. We have the obligation to defend it," said Moira Millan, a Mapuche Indian striving to protect Patagonia in Latin America. Her gentle but firm resolve was echoed by a woman activist from Brazil: "If the Amazonian region is the world's lungs, why are we not defending it from dams and destruction? My inspiration to join the movement came when I saw the rivers being destroyed by irresponsible development." Irene, a young student from Mexico, told us that she took inspiration from her mother, who talked to the wind, the plants and the flowers: "I grew up respecting nature. My greatest inspiration to join the movement is the love that my mother passed on to me."

Even some of the most outspoken activists, like Soniamara Maranhão of Brazil's Movement of Dam-Affected People, mentioned that men do not always support women in working for the struggle. They expect their wives to organize and continue taking care of all the family and household responsibilities. But, she said, "Women look after the seed of life, work the most and go hungry the most often. We have to be in command and cannot remain in shadows anymore." (See Soniamara's article, page 14.)

Many women said they believe that a river has the right to flow, like we have the right to live.

Tuba Kılıç from Turkey was eloquent: "I believe that every creature has rights. The planet that we live on has rights. In my community, we decided to become river activists because, in my country, every water body has a dam project lined up. Rivers carry food to every creature living in it. I believe that the river should not be stripped of its right to life."

The conversation flowed. "Does anybody have the right to cut off the flow of someone else's life? A dam cuts off connection to life," asked another participant.

No Plot of One's Own *continued from page 3*

of large dams. One excellent example is the Narmada Bachao Andolan (Save the Narmada Movement, or NBA), one of India's leading social movements. Dynamic women have held key leadership positions. Women have courted arrest, participated in rallies and challenged judicial and police authority in confrontational encounters. For many rural women, their participation in the movement has been a liberating experience, endowing them with a new sense of agency to challenge authorities.

NBA activist Chittaroopa Palit (Silvy) highlights the "imagination" of displaced women to anticipate, perhaps more than men, the adverse impacts of displacement.

Medha Patkar, recipient of the Right Livelihood Award, the Goldman Environmental Prize, and former WCD commissioner, says that since women's rights and lives are often more rooted in natural resources than in marketable commodities, they tend to appreciate the non-quantifiable value of resources more than men. Thus, when cash compensation is rejected by groups confronted by displacement, it is usually women who are at the forefront.

Dam-based development is a gendered process with profound impacts on social and gender relations, identities and the ways

The need to become stronger in bonds and action was felt and shared by all of the women gathered in the fading afternoon sun of Temaca that day.

A movement within a movement

As Betty Obbo from Uganda pointed out, women and children are the most affected by displacement. They lose their access to safe drinking water, fish in flowing waters, fertile land for farming food and familiar spaces in the village they have lived and rooted themselves. (See Betty's article, page 10.) "We may face discrimination from our families. But that should not deter us. If we respect the life of the river, we will gain strength from it. We should acknowledge ourselves as fighters," said a young leader from Ecuador.

Ideas on how to reinforce these women's strength came pouring in across our circle. Reach out to more women in the dam affected communities, working together will give them strength to face the long struggle ahead. Create alliances with other women's movements. Talk to the media on how women are affected differently than men by dams and displacement. Hold more hunger strikes, nonviolent sit-ins and the like. An activist from Brazil suggested setting up of autonomous women's movements within our organizations to carry forward the resistance. (Another idea was to create this special issue of *WRR* – here it is!)

Finally, we touched upon an issue most women struggle with: how much can we take on? How do we protect ourselves while taking on these difficult struggles? As women we are always making sacrifices, sometimes to the point that there is nothing left to give. But we need to save something for ourselves – an inner space of sanity. This is the only way we can keep on fighting until we get what we want for the world, because it is sure to be a long journey to get to that better world.

As the session closed with tears and hugs all around, we took great comfort from the realization that the rivers across the world are united through thousands of women like these – women with the sense and sensibility to understand that if rivers die, we all lose together. ●

The authors were co-organizers of the women's session in Mexico.

in which resources are distributed between men and women. Because planners have largely ignored women's interests, gender inequalities have been worsened by the construction of large dams. Gendered protest against dams has highlighted the need for equity and questioned conventional notions of costs, benefits and loss. Indeed, dynamic protest, often led by women, has helped challenge the conventional logic of displacement and large dam benefits by presenting alternative notions of accounting, budgeting, loss, resources, and development planning. Protest has also asked critical questions concerning who benefits and loses from dam-based development and what constitutes the "common good." Even though large dams continue to be planned and built, struggles all over the world are causing them to be executed with significant time and cost overruns. Indeed, it is only through struggle that some of the social and gender-based injustices caused by large dams can be reversed. ●

The author is a research fellow at the Institute of Development Studies. She has been engaged with the issue of gender, dams and displacement since 1991.



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Mekong Communities Fight to Open Gates at Pak Mun Dam

By Ame Trandem

Since January 12, several thousand community members affected by Pak Mun Dam and supporters from the Thai NGO Assembly of the Poor have taken to the streets in Bangkok and elsewhere to demand that the Thai government permanently open the dam's sluice gates in hopes of reviving livelihoods and restoring the river's fisheries. Since the dam was completed in 1994 on a major tributary of the Mekong, the Pak Mun dam has wiped out fisheries, displaced communities and failed to deliver profit for its investors. The severe ecological damage has destroyed the traditional way of living for approximately 20,000 people who have suffered violations to their rights to food, work and culture.

The protests are only the latest in a 20-year struggle which has demonstrated the failure of fish ladders to effectively mitigate impacts in the Mekong basin.

"The fish disappeared with the gates of Pak Mun Dam, which in turn impacted the relationships between families and communities," states Mrs. Sompong Wiangchan, leader of the Pak Mun Dam-Affected People's Network. She explained that women have been particularly impacted, as they no longer can trade fish

paste, fermented fish and other fish-based products. In addition to the loss of food security and an important source of income, the trade was an important way for families and villages to connect with each other.

The dam has torn the rich fabric that previously held traditional family structures together. International River's Piaporn Deetes explained: "As women were once responsible for providing food security for their families, many housewives and mothers have been forced to migrate to cities for work as cheap laborers, in order to find new sources of food and income. Villages have been abandoned, and in some, only elders and children remain."

The recent protests were triggered after an investigation into the problems of the dam by two Thai government panels. The panels recommended that all sluice gates be permanently opened to allow fish from the Mekong River to spawn in the Mun River, and that compensation be paid to the affected people. These findings subsequently resulted in a promise by the Prime Minister's office to seek cabinet approval to permanently open the dam's gates. A decision is expected at the next cabinet meeting, scheduled for March 8. ●