



Megoe Tso: The Damming of Tibet's Sacred Lake



Tibet Justice Center would like to thank the International Rivers Network and our friends in Tibet and China who are working, often at great risk, for environmental protection and for people to have a say in the policies that affect their lives.

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I. Purpose and Structure of the Report

The purpose of this report is to provide an analysis of the key issues surrounding the controversial dam project on eastern Tibet's most sacred lake – Megoe Tso – a project that is currently “suspended” but that nonetheless has been approved from China's central government.

Based on an assessment of China's larger dam building trends, the following section (II) seeks to contextualize Megoe Tso project in relation to certain recent incidents that may have influenced the current “suspended” status. Section III discusses the benefits and costs of the project based on assertions made by project proponents and the counterclaims made by environmentalists. Section IV highlights traditional Tibetan values and views surrounding environmental protection and the local people's relationship to nature – concerns that the Chinese government has yet to account for. Section V provides a brief assessment of local Tibetan opposition to the project, followed by the environmental implications of the project in Section VI. Section VII provides a brief discussion of what is believed to be one of the most important but least discussed issues: the dangers posed by the region's seismic activity. The paper concludes with a discussion of criticisms raised against the project by Chinese experts, and a call for those who care about Tibet's environment and local human well-being to support the growing interest within China's civil society for environmental conservation inside Tibet.

For further research and readings, the report provides two appendices: a “Megoe Tso Timeline,” which chronicles the important events related to the project, and a bibliography and list of internet resources of relevance to the project.

II. “Drain the Pond to Catch the Fish” – The Fate of Tibet's Water Resources

Before the Chinese Communist Party came to power in 1949, China had only 23 large and medium-scale dams and reservoirs.¹ Fifty-five years later, China has over 22,000 of the world's 45,000 large dams. This means that, on average, the People's Republic of China has built more than one large dam (those more than 15 meters in height) a day for the past half-century, making China the largest dam builder in the world.

While most of China's dams were built in the 1950's and 60's, current dam projects are infamous for their overwhelming size and the governance practices that control the way the projects are executed. The building process is marked by corruption, lack of transparency, and the forceful relocation of large numbers of people.² In the case of the controversial Three Gorges Dam project, for example, the government was implicated in a variety of abuses that included kidnapping, arbitrary detention, and money laundering.³

Despite these abuses, and despite questions about exactly how much power China needs and how to deliver it,⁴ the country's estimated \$42 billion dam building industry⁵ appears ready to harness

¹ See, Shui Fu, “A Profile of Dams in China,” Qing, Thibodeau, et. al., p. 22.

² Although there are much higher estimates, the government acknowledged 10.2 million people as “reservoir resettlers” in 1980. See: World Commission on Dams, *Dams and Development: A New Framework for Decision-Making*, p. 17.

³ See, e.g., “Dam Shame: China's Three Gorges Dam,” *The Economist* (July 6, 2002); Jasper Becker, “Three Gorges Petitioners ‘held by police’,” *South China Morning Post*, (March 21, 2001); Wang Yusheng, *Three Gorges Probe: Three Gorges Dam Petitioners Abducted*, Probe International (March 23, 2001); *Arrests, Intimidation Confirm Human Rights Abuses at Three Gorges Dam*, International Rivers Network (March 28, 2001).

⁴ For example, the Ertan Dam in southwest China is one example of grossly overestimated demand. Completed in 1998 with the largest World Bank loan for a single project, it also promised to alleviate power shortages. Currently,

the lakes and rivers of Tibet in order to fuel the energy demands of the “Western Development Campaign.” Chinese intellectuals have likened the government’s lack of solution for China’s energy crises, but through indiscriminate supply of hydroelectric power, as a strategy to “drain the pond to catch the fish.”⁶

Several projects that are larger and more challenging than the Three Gorges Project are being planned on the Tibetan Plateau.⁷ On August 9, 2004, *Renmin Zhengxie Bao*, an official daily published by Chinese People’s Political Consultative Conference, reported that hydro-power construction trends in the Megoe Tso region (western Sichuan Province) were “crazy and out of control.”⁸

However, more recently, China’s leaders have indicated that they are making some effort to address social and environmental impacts of large dams. Last year, Premier Wen Jiabao, in an unprecedented move, suspended a project involving 13-dams on the Salween River (Gyalmo Ngulchu in Tibetan, Nu Jiang in Chinese) based on the projected social and environmental costs. And for most of January 2005, the government suspended thirty mega projects, including 26 hydro dam projects, for not complying with the required procedures of the Environmental Impact Assessment Law.

While these suspended projects have now been scheduled to resume, a closer look at these recent events – events that slowed the Chinese government’s normally relentless push to build more mega-dams – is warranted because, in the midst of these recent developments, the Megoe Tso project was “suspended” along with several other projects in the area. In addition to the issues we raise in sections V, VI, VII, and VIII regarding the problems relating to this project, Chinese analysts believe that two recent factors may have contributed to the suspension: the aftermath of the Pubuguo protests and the tragic Tsunami/earthquake of December 2005.

The protest against the Pubuguo dam project, located in Hanyuan County, Sichuan Province, occurred in late October/early November 2004. The unrest was estimated to involve around 50,000 people. The Pubugou Project, initiated in April 2004, is expected to displace 100,894 people and inundate an area of 84.14 square kilometers that includes 20 counties and townships, 65 villages and 8457 acres of good agricultural land in Hanyuan county. Hanyuan county is an area of cultural and historic importance and home to people of 17 different "minority nationalities," including Tibetans.

A cause of the protest was the local peoples’ unhappiness with the government's relocation practices. In the weeks leading up to the protest, armed police forcefully dragged away many people who had refused to move out of their homes. Many farmers felt cheated by the government as they were moved to a different site, not the one promised and for which they were

Ertan Dam is already unable to sell 60 percent of the power it produces and is losing over \$120 million a year. Demand for electricity generated by Three Gorges Dam may fall short of supply according to a former senior executive on the project (*Financial Times*, March 10, 2000). Potential customers for electricity generated by the dam are likely to be served by other local power stations that are now being planned.

⁵ James Borton, “Mother of Rivers,” *The Washington Times* (September 2, 2002).

⁶ He Qinglian, Kaifang, December 2004. Translated and published in *China Rights Forum*, “The Hanyuan Incident: Draining the Pond to Catch the Fish,” No.1, 2005.

⁷ Tashi Tsering, *China’s Water Politics: In Whose Interest?* Tibet Justice Center, 2005.

⁸ Liexie, “Use Scientific Practice And National Ethnic Policy To Guide Development,” *Renmin Zhengxie Bao*, August 9, 2004. English translation available online at <http://www.tibetjustice.org/tringyiphonya/num8.html#ge>

made to sign agreements. Others who were moved from Hanyuan County learned that the cost of land in the cities designated for relocation was up to fifty percent more expensive than the amount of coverage the government was providing.⁹ As more farmers joined the protest, “as many as 10,000 soldiers were reportedly deployed against the protesters.”¹⁰ Several violent clashes and an unverifiable number of civilian deaths occurred as a result of the tactics of the Chinese security forces.

The devastation caused by the Asian Tsunami triggered by an earthquake near Indonesia sent shock waves around the world, including China. In China, “mainland environmentalists have launched a petition urging the government to fast-track the establishment of an earthquake warning system in the southwest,”¹¹ including the western Sichuan area. The *South China Morning Post*, in its report about the petition, states that “Premier Wen Jiabao had recently ordered the appropriate agencies to establish such a system ... At a time when China is developing the southwest's water resources, there must be an adherence to Premier Wen Jiabao's order in which an earthquake warning network and forecasting system for current and future large-scale water resources protection be established...”¹² (for more discussion, see section VII. Earthquake Threats)

Whether the Asian Tsunami made local leaders re-think dam construction in the western Sichuan area is uncertain, but it is clear that civil society played an important role in educating key actors about the project. Chinese environmental leaders are becoming more connected and effective in helping the government steer the economy towards sustainable development by making public works respectful of environmental and local people's concerns. In the specific context of dam building, the message these leaders are sending is that the environmental and human costs of large dams may outweigh the hydroelectric and economic benefits, especially in cases where corruption and lack of scientific rigor are present.¹³

Additionally, the Megoe Tso dam project may interfere with an industry that both the government and local people are trying to cultivate in the region – tourism.¹⁴ In remote parts of Sichuan and Tibet, the principle attractions for Chinese and foreign tourists are the pristine natural areas that are free of the kind of rampant and haphazard development that plagues the coastal areas of China. Since the logging ban of 1998 that was put in place as a result of the outcry over the disastrous Yangtze floods, tourism has replaced the timber industry as a major

⁹ “Massive Protest by Sichuan Farmers Squashed by Police,” *The Epoch Times*, 11/10/04, available online at <http://english.epochtimes.com/news/4-11-10/24272.html>

¹⁰ He Qinglian, Kaifang, December 2004. Translated and published in *China Rights Forum*, “The Hanyuan Incident: Draining the Pond to Catch the Fish,” No.1, 2005.

¹¹ Ray Cheung, “Alert system a priority: experts,” *South China Morning Post*, January 4, 2005.

¹² *Ibid.*

¹³ See the collection of essays by Dai Qing entitled *The River Dragon Has Come!* (ME Sharpe, 1998). It contains the first-ever independent studies of the effects of pilot resettlement projects in the Yangtze Valley, describing in vivid detail the suffering that may befall the more than 1.3 million Chinese who will eventually have to be moved; it includes the most comprehensive description of the collapse of the Banqiao and Shimantan dams in 1975, a disaster that Chinese officials successfully hid for years even though it claimed over 200,000 lives; and it details the often bitter struggle between China's government-appointed archaeologists and Communist Party officials over the future of more than 1,200 ancient sites, most of which will be forever drowned by the dam's massive reservoir.

¹⁴ There are dozens if not hundreds of government-sponsored internet sites encouraging nature tourism to Sichuan. A typical example in English is <http://www.linktrip.com/sichuan/>

revenue source for the local economy.¹⁵ Chinese language reports indicate that the local populations on the eastern portion of the Tibetan plateau voice their preference for tourism over the construction of new dams as a path to increased economic well-being.

However, it is not unlikely that the construction of Megoe Tso will recommence suddenly. Legally and politically, the project has been approved by the government and may begin anytime.



(Boundaries portrayed do not represent an endorsement or acceptance of territorial claims)

III. The Politics and Economics Behind the Megoe Tso Project

Megoe Tso (English: Yeti Lake, Chinese: Mugecuo) is situated on the eastern fringes of the Tibetan Plateau, in the heart of a “protected area” – Gongga (Tibetan: Gangkar) Mountain National Scenery and Natural Conservation Area. Hydrologically, the lake is situated in the upper watershed area of the Driчу River (English: Yangtze, Chinese: Chang Jiang or Jin Sha Jiang), one of the most important rivers in all of East Asia. It is connected to the Yala River, a tributary of the Wasi River (see map below), which further drains a major tributary of the Yangtze River, Gyarong Gyalmo Ngulchu (Chinese: Dadu He). The intense hydropower construction trend on the Dadu River was documented by *Renmin Zhengxie Bao* – forty-eight dams have been built along the main stream and branches of the river and a total of three hundred and fifty six dams are in the development pipeline.¹⁶

¹⁵ As Pamela Logan states in her article on the Timber industry in Ganzi, Western Sichuan, “Drivers who formerly carried timber to market now wonder how they will recoup their investment in costly vehicles.” See <http://khamaid.org/programs/environment/forestry.htm>

¹⁶ See Xiaoping, Zhang, “Dadu River Valley Hydropower Development Craze Out of Control,” *Renmin Zhengxie Bao*, 08-09-2004.

The Megoe Tso dam project is part of a basin wide hydro-power development scheme for the Wasi River. According to project designs, a 50.5 m high and 260.5m wide dam will be built near the exit-end of Megoe Tso. The dam will be connected to another pumped storage power plant and the Jin'gai hydropower plant through tunnels and diversion channels (see map below).



*Project planners map of Megoe Tso and other dam projects (top)
A snapshot from the city of “Kangding” or “Dartsedo” (below)*



The Proponents

Project proponents maintain that the project is designed with the larger goal of alleviating poverty in ethnic Tibetan areas, and they project that the local government will receive an annual income boost of up to 70 million yuan. Officials of the Ganzi Tibetan Autonomous Prefecture see hydropower development as the key to rapid economic prosperity for their under-developed areas and thus as an important political issue, stating that “the only two sensitive problems related to the project are earthquakes and natural scenery.”

The estimated cost of the project – 2 billion yuan (~US \$250 million) – is financially and politically backed by the Beijing-based Huaneng power company. Huaneng is considered the most powerful “independent” power company in China and is headed by former Prime Minister Li Peng’s son, Li Xiaopeng. In the Communist elite driven political economy of China, critics refer to the power sector as a “fiefdom of the Li Peng family.”¹⁷ Li Xiaopeng, in addition to being the chairman of Huaneng Power – the only power company to have national operations – is also “the number two” at the State Power Corporation which owns all of China’s power transmission and distribution capacity and 60% of its generating capacity. Li Peng, infamous for ordering the 1989 Tiananmen Square massacre, is also blamed for the forcible relocation of over a million people and the environmental and cultural destruction caused by the Three Gorges project, the world’s largest hydropower project.¹⁸ With the same group of ruling elites both profiting from the construction of dams and policing the local population whose lives are being placed at risk by them, a conflict of interest is obvious.

While the Megoe Tso project is a relatively small financial investment compared to some of China’s other hydro-power projects, the project could be substantially more expensive in political terms (see Section V: Local Tibetan Opposition).

Counterclaims

However, there are certainly other issues that undercut the supposed benefits of this project for the mostly low-income local population. First, there is the fact that the annual projected revenue of 70 million yuan will be going into the pockets of the local government, not the local people directly. While basic education and health care systems exist in the urban and semi-urban areas of Sichuan, the government has a poor track record in developing education and health care infrastructure in rural Tibet.¹⁹ In addition, there are reports of widespread corruption of government officials that make it reasonable to question whether local people will incur benefits, since most income is likely to go to government officials and contractors.²⁰

¹⁷ See, e.g., Dan Slater, “A monopoly by any other name ... is still a monopoly,” *FinanceAsia.com*, March 12, 2002; James Irwin, “China: Power Politics,” *Three Gorges Probe*:

(<http://www.threegorgesprobe.org/tgp/index.cfm?DSP=content&ContentID=5764>); Antoaneta Bezlova, “China corruption probes signal power plays,” *Asia Times*, November 1, 2002.

¹⁸ For more information on Three Gorges Dam, visit: <http://www.irm.org/programs/threeg/>

¹⁹ Cui Zhiyuan, He Zengke, Li Shi, Carl Riskin, Ding Yuanzhu, Hu Angang, Barry Naughton, Wang Shaoguang, *China: Human Development Report 1999*, United Nations Development Programme, (Oxford University Press, 2000).

²⁰ See, e.g., a reference to corruption of officials in reference to Megoe Tso in “Feature Article on Megoe Tso,” *TRIN-GYI-PHO-NYA: Tibet's Environment & Development Digest*, July 20, 2004, Vol. 2, No. 4.

Moreover, Chinese government revenue and expense projections for large development projects (and in many other areas) are suspect,²¹ and it is difficult to know for sure how much the project will actually end up costing, and how much it will actually bring in annually and for how long. Most importantly, there is the question about whether the local area even needs the amount of power that will be generated by the project, as “local officials say there are already a number of hydroelectric power stations in the area and power supplies are plentiful.”²² This would not be the first time planners overestimated the local demand for energy. Ertan Dam, completed in 1998 with the largest World Bank loan for a single project, also promised to alleviate power shortages. Currently, Ertan Dam is already unable to sell 60 percent of the power it produces and is losing over \$120 million a year.

There is also the issue of short-term versus long-term economic planning. Tourism, for example, is an industry that if properly regulated and handled, could bring significant revenue directly to local people over the long-term. Tourism has just started to take hold in Western Sichuan, and growth in this sector of the economy seems imminent. But tourism in the region is very connected to retaining the pristine beauty of the Megoe Tso area. In a letter dated October 13, 2003 to Premier Wen Jiabao, Tibetan and international environmental leaders noted that “tourists, botanists, photographers and spiritual pilgrims from around the world visit the area every year, and the number of interested people is bound to keep increasing if the area is kept in its pristine condition.”²³

IV. The Traditional Spiritual Significance of Megoe Tso to Tibetans

His Holiness the Dalai Lama has consistently raised concerns about the treatment of Tibet’s environment.²⁴ The reason for this is not difficult to see – the traditional connection Tibetans have had with their natural environment has featured prominently in the religious, cultural, and artistic life of the country. There is some evidence that there was a traditional, spiritual understanding of the natural world in which local people viewed themselves as akin to stewards of nature who viewed the natural integrity of sacred sites around them as intrinsically connected

²¹ Problems with China’s projections extend well beyond the dam industry. For instance, in the case of the Qinghai-Tibet railway, another huge economic development project the government is undertaking to link Lhasa, Tibet’s capital, to China’s rail system, the government may be significantly underestimating the total cost of the project. (See the report by the International Campaign for Tibet, “Crossing the Line: China’s Railway to Lhasa Tibet,” pg. 7. The report can be downloaded at: <http://www.savetibet.org/documents/pdfs/2003RailwayReport.pdf>). On a larger scale, according to Thomas Rawski of the University of Pittsburgh, the Chinese government has systematically falsified its gross domestic product data to hide an economic downturn that took place in 1998 and 1999. The government’s handling of the SARS epidemic has strengthened Rawski’s case. “Now everybody knows the Chinese government suppressed health statistics until a Beijing physician pulled the plug on them,” he says. “The only question now is whether [the government’s suppression of bad news] spreads into the economics area as well as health. There is no question that falsification of economic data at the local and provincial level is widespread. We know this because in 1999 the National Bureau of Statistics, on the front page of a national daily, said the provincial statistics were ‘cooked’ [by local officials]. That was the term they used.” Full article available at http://www.forbes.com/2003/11/14/cz_rm_1114china.html

²² Huang, Wen, “Destroying a Natural Treasure in the Name of Progress” South China Morning Post, August 16, 2003

²³ A copy of the letter is available on the website of International Rivers Network: <http://irn.org/programs/mugecuo/index.asp?id=040401.wenjiabao.html>.

²⁴ For an online collection of statements on the environment by the Dalai Lama: <http://tibet.net/diir/eng/enviro/2004/>

to their own well-being.²⁵ This section attempts to outline certain traditional Tibetan religious views that are relevant to understanding the impact the dam may have on the local population - views that are currently not accepted by the government.

Megoe Tso is the most sacred lake in the Kham region of traditional Tibet.²⁶ Nearby, Minyak Ghangkar (Gongga) mountain – the highest peak in the Eastern Himalayas (7,556m) – is one of the most sacred mountains in the region. Megoe Tso Lake and Minyak Ghangkar Mountain have also traditionally served as pilgrimage sites for spiritual practitioners.²⁷ Tibetans believe these places are blessed by the presence of deities and past meditators, making the areas “energetic centers” that have the capacity to greatly aid spiritual aspirants who are sensitive to the qualities of such places. Tibetans from the entire plateau undertake pilgrimage to Minyak Gangkar to pray and accumulate merit by walking the Kora (holy circuit) around the sacred mountain and lake. According to a local belief, a single night spent in meditation on the slopes of Mt. Minyak Gangkar is potentially as powerful as 10 years of meditation in one's home.²⁸



That the dam would disrupt spiritual activity in so far as it would create a man-made blemish in the middle of a sacred site has been pointed out before. However, there are other facets of

²⁵ Choezin, Tenzing, “Tibetan Perspectives on the Significance of Mountains and Lakes,” *Trin-Gyi-Pho-Nya: Tibet’s Environment and Development Digest*, October 30, 2003, Vol. 1. No. 3. Also refer to a contrary argument in Toni Huber, in his chapter in Dodin and Raether, *Imagining Tibet*.

²⁶ See July 14, 2003 press release of a Tibetan white paper response, *Tibet 2003: State of the Environment*, online at <http://tibet.net/flash/2003/0703/140703.html>

²⁷ For further readings on the cultural significance of mountains and lakes, see: Ngawann Zangpo, *Sacred Ground: Jamgon Kongtrul on Pilgrimage and Sacred Geography*, Snow Lion Publications; John Bellezza, *Divine Dyads*, Library of Tibetan Works & Archives, Dharamsala, 1997; A.W. McDonald ed., *Mandala and Landscape*, D.K., New Delhi, 1997; Toni Huber, *The Cult of Pure Crystal Mountain: Popular pilgrimage and visionary landscape in Southeastern Tibet*, (Oxford University Press, 1999); Toni Huber ed., *Sacred Spaces and Powerful Places in Tibetan Culture*, Library of Tibetan Works & Archives, (Dharamsala, 1999).

²⁸ Khampa Caravan, <http://www.khampacaravan.com/files/collection.asp#Sacred>

Tibetan belief which have not been considered that could come into play as the project develops. According to pre-Buddhist Tibetan beliefs, sacred mountains and lakes are not only objects of worship, but their protection from pollution and harm is considered crucial for the well-being and survival of the land and the people.²⁹ This concept of the sacred is related to the concept of *bla* (pronounced “la”), roughly translated as “soul” or “life-force.’ According to this belief, an individual, a family, or even a whole nation has their own *bla*. *Bla* are connected with a particular place or being, called the *bla-gnas* (the dwelling place of the *bla*, pronounced “lanay”). Very often, lakes are considered *bla-gnas* on which the health and life of a person, a community, or even a whole nation depends. For instance, according to one belief, Yamdrok Tso in south-central Tibet is the *bla-gnas* of the Tibetan nation. It is believed that one can bring great harm or even death to the person, family, community or nation by destroying or harming the *bla-gnas*.

From this perspective, the act of tampering with, altering, or harming Megoe Tso almost certainly has a deeper significance to local Tibetans than the government has thus far grasped. How this will play out is uncertain, but it is important to point out that the Tibetan tradition treats nature and human beings as interdependent. The tendency to objectify the natural world as being “outside the self” – along with the exploitation and violence that have accompanied this view – is relatively foreign to traditional Tibetan belief systems.



A tourist’s snapshot of local Tibetans of Dartsedo (above).

²⁹ Tsering, Tashi, “The Spiritual and Cultural Significance of Yamdrok Tso,” Amnyen Machen Institute.

V. Local Tibetan opposition

That local people are strongly opposed to the dam was confirmed in several different incidents in 2003-2004. On June 20, 2003, Radio Free Asia reported that local Tibetan leaders were strongly objecting to the Megoe Tso project. Local concerns expressed in writing were submitted to Premier Wen Jiabao by Phuntsok Wanggyal, a Tibetan leader from the region and a professor of Astronomy and Philosophy at the graduate school of the Chinese Academy of Social Sciences.

Premier Wen Jiabao reportedly ordered an intra-agency taskforce to investigate the issue. However, Radio Free Asia claimed that the team – under pressure from Huaneng Power company – concluded that the project was feasible. The task force reported their findings in favor of the builders and failed to document the myriad environmental concerns raised by experts and the local population.

According to an unconfirmed survey on local views of the Megoe Tso and Renzonghai dam projects, 39 out of 40 local Tibetans, including ordinary villagers, party cadres and religious practitioners, expressed their opposition to the project. As the Megoe Tso project gained media attention, local people, including government officials, became more informed and more openly critical, culminating in the local government expressing outrage over the “internationalization of the issue” by the Tibetan language service of Radio Free Asia (See Appendix A: Megoe Tso Timeline).³⁰

The government has reason to worry about the increased attention the project is receiving. Several members of the original government-appointed environmental review panel are now calling for a cancellation of the project on “environmental and safety grounds.”³¹ The hydro-power industry and the government officials who support the project overlooked the concerns expressed by local Tibetan leaders. Given the requirement of China’s national environmental laws, local consultations should have been held, especially considering the diversity of concerns expressed by Chinese experts.

VI. Environmental Implications

In addition to being precious to the local population, Megoe Tso is also an important site for ecologists, geologists and plant and animal conservationists. It is the largest lake in the “mountains of southwest China,” a region identified by Conservation International as one of world’s biodiversity “hotspots” – the richest and most threatened reservoirs of plants and animals on Earth.³²

According to Yin Kaipu of the Chengdu based Biological Research Institute of the Chinese Academy of Social Sciences, “This is the world’s recognized hot bio-diversity zone, and it offers the key to the study of the mysteries of the geological evolution of the Qinghai-Tibet Plateau. It is an ecological museum that features unique animal and plant species.”

If the 50.5m tall and 260.5m wide dam is built, the resultant reservoir (or pristine-lake-turned-artificial-lake) will increase the surface area of Megoe Tso lake from 1.68km² to 2.8km² and inundate 100 hectares of mostly old-growth forests, azalea trees and highland grasslands (see

³⁰ Source withheld for security reasons.

³¹ Huang, Wen, “Destroying a Natural Treasure in the Name of Progress” South China Morning Post, August 16, 2003

³² Visit <http://www.biodiversityhotspots.org> .

picture below). The reservoir will also inundate the natural habitat of many endangered animals. The dam builders argue that rare species living in the construction site will move higher up as water rises, but of greater concern to ecologists are the effects on the aquatic biology and ecology.



(Megoe Tso: the dam reservoir will inundate much of the old growth forest captured in this photo)

Upon completion of the project, Megoe Tso’s waters will flow through a tunnel to a downstream pumping storage power plant and the Jing’ ai hydropower plant, reducing downstream water flow to a trickle when the downstream ecosystem needs inundation. The downstream Yali River and Niuwogou River are likely to dry up, consequently drying up Qisehai Lake which is situated further downstream. Water levels rising and receding based on natural “regimes” of storms, snowmelt, and winter and summer rain will cease, forever altering and destroying an aquatic ecosystem that took millions of years to develop, and one that has been respected and protected by local people for thousands of years. Riparian (streamside) ecology and species may also be damaged, as Chinese scientists estimate 1,000 hectares of ancient forest along the Niuwogou River also will be affected by the dam.

BIO-DIVERSITY AND ENDEMISM OF “MOUNTAINS OF SOUTHWEST CHINA”

| Taxonomic Group | Species | Endemic Species* | Percent Endemism |
|-------------------|---------|------------------|------------------|
| Plants | 12,000 | 3,500 | 29.2 |
| Mammals | 237 | 5 | 2.1 |
| Birds | 611 | 2 | 0.3 |
| Reptiles | 92 | 15 | 16.3 |
| Amphibians | 90 | 8 | 8.9 |
| Freshwater Fishes | 92 | 23 | 25.0 |

*Endemic species = Number of plant and animal species that are unique to the area

Source: Conservation International

Unfortunately, experts who are examining the environmental damage that may be caused by the dam do not have the impact data necessary to make an in depth assessment of the environmental consequences of the project. According to China Youth Daily, Megoe Tso lake "nurtures over 1,000 sub-tropical mountainous plants, over 2,000 vertebrata within the humid river valley, over 100 bird species and many other animals, fish and insects, and over 30 species of azalea."

Beyond this basic information, there is not a lot known about the specifics of which endemic species will be effected and how. Regrettably, neither the government nor Huaneng company have done the kind of rigorous environmental assessments that are required by law and that could be used to draw real scientific conclusions. To our knowledge, there are currently no published reports detailing the project's impact on biodiversity. A detailed study about the impact of the project on local indigenous people's "foodshed" is also warranted as most local Tibetans living around the lake area are farmers, pastoralists (animal rearing and grazing), and medicinal herb gatherers. A detailed environmental impact assessment is critical for the government to make an informed decision about the project.



Local Tibetans cleaning “Yartsa Gumbu” (botanical name: *Cordyceps sinensis*), a key ingredient in certain traditional Tibetan medicines, now in high demand from Chinese pharmaceutical companies (above).

VII. Earthquake Threats

In addition to direct environmental impact, there is the real danger of seismic activity to consider. Underneath Megoe Tso, and underneath the Tibetan Plateau as a whole, are some of the most active fault lines in the world. The Megoe Tso area is located on one such active fault line, the Luhuo-Kangding fault line (also called Xianshuihe fault line) which has produced at least eight earthquakes since 1725 with magnitudes greater than 7. Therefore, if the project is undertaken, Megoe Tso dam will be “like a huge time bomb to the region.”³³

According to Chinese seismological research, between 1725 and 1976, 32 destructive earthquakes were recorded, 15 of which were greater than grade 6. On June 1, 1786, a serious earthquake measuring 7.5 degrees on Richter scale happened in Dartsedo. The earthquake killed many people, caused major landslides and blocked water flow of the Gyalrong Ngulchu (Dadu River) for 10 days.

As a result of the earthquake-induced Tsunami of December 2004, Beijing-based groups and individuals have recently signed a statement calling for an earthquake monitoring network for dams in Southwest China. The petitioners called on the government to follow through with a new regulation (effective September 1, 2004) requiring dams over 100m in height and 500 million cubic meter of storage capacity to install earthquake-monitoring networks.

Some analysts believe the Tsunami may encourage the government’s fledgling efforts to curb construction of dams in southwest Sichuan. Whether the government will follow through on building the monitoring system is unclear, and even less clear is how much good it will do in the many cases where dams have been built with sub-standard materials and construction techniques.

VIII. Criticism from Chinese Experts

Today, an increasing number of Chinese civil society leaders are questioning China’s water development policy and the governance mechanisms used to develop and manage hydro-power projects. They are critical of China’s dam projects because of three main factors: a) the lack of democratic process and transparency in making key decisions around large dams, b) the corruption of officials and private contractors, and c) the disregard for environmental and social costs and an overall unwillingness to seriously study these costs before beginning construction. All three of these factors apply to the Megoe Tso project.

Reports indicate that many Chinese, including local cadres, environmental leaders, journalists, party officials, academicians, as well as ordinary citizens are also critical of the project. Critical news stories on Megoe Tso dam project have been covered in almost every type of media (TV, radio, internet, newspaper) at all levels (local, national, as well as international). Critical news stories were also carried in various official publications such as China Youth Daily and *Renmin Zhengxie Bao*, proving factions within the Party are on some level sympathetic to issues related to sustainable development, and that the project has garnered significant attention from the mainstream in China.

Tang Xueshan, a professor at China’s Forestry University and a member of the government-appointed Megoe Tso review committee, told China Youth Daily that “no other country in the

³³ *Ibid*

world would allow a dam to be built in its national parks. Once these precious ecological resources near Mugecuo are gone,” he continued, “[the damage] would be irreparable”.

Moreover, Chinese environmental journalist Liexie argued in an official CCP journal that “today, we are facing [a] potential disaster, driven by the improper objectives and improper development methods of hydroelectricity construction... Scientists, environmentalists and experts point out that planners have neglected the environmental costs of water resources development in western China.” Liexie also alleges that the government’s behavior, and specifically their treatment of development issues in Western Sichuan, may well violate the Party’s stated policies towards “ethnic minorities.”³⁴

Whether Chinese environmentalists target the treatment of local people or the value of hydro-power development generally, it is critical that those who care about the environment and the rights of the Tibetan people support the growing interest within China’s civil society movement concerning environmental protection and development in Tibet.

A review of the last two years of environmental policy decisions in China shows that the government is listening to this new population of experts, journalists, and NGO workers. The government’s relationship to this community, however, remains complicated and at times paradoxical. On the one hand, it is accepting feedback on environmental and sustainable development issues and acting on it in ways that it has not in the past.³⁵ On the other hand, factions of the government are still acting out their traditional pattern of dealing with dissent, particularly in “politically sensitive areas.” Therefore, the selfless efforts of Chinese civil society leaders trying to educate local people and officials about the different implications of the project must be supported.

IX. Ways You can Help

On the level of economics: Watch for the Huaneng International IPO (Initial Public Offering). Money raised from Huaneng Power International’s IPO on the New York Stock Exchange (NYSE), the Hong Kong Exchange and Clearing Limited (HKEx), and Shanghai Stock Exchange (SSE) may be used to fund the project. Huaneng Power International recently acquired 60% equity interest in Sichuan Huaneng Hydro Power Development Limited. At the very least, investors should stay away from this offering and make a concerted effort to educate themselves about the implications of their investments.

More information on companies that are helping to fund China’s mega-dam industry can be found on the website of the International Rivers Network: www.irn.org

On the level of information: please let us know about scientific studies documenting plant and animal life in the region, especially in the project site. If you are traveling to wilderness areas in Tibet, or places where the Chinese government is initiating development projects, consider

³⁴ Liexie, “Do Not Forget To Use Scientific Practice And National Ethnic Policy To Guide Development” Renmin Zhengxie Bao (CPPCC Daily) August 9, 2004

³⁵ For instance, in 2004 Premier Wen Jiabao’s took the unprecedented step of halting a project involving no less than 13 dams on the Salween River following unfavorable analysis by China’s environmental science community. See Tibet Justice Center, “Preserving the Salween River’s Natural Heritage,” *TRIN-GYI-PHO-NYA: Tibet’s Environment & Development Digest*, Vol. 2, No. 3, May 6, 2004.

documenting what you see. You can be in touch with Tibet Justice Center's Environment & Development Program to talk about the kinds of documentation and fieldwork that would be the most worthwhile and helpful according to your interests.

On the level of financial support, consider contributing to Tibet Justice Center specifically to keep our environmental advocacy program running – a program that is completely Tibetan run with a thriving Tibetan internship program that teaches young Tibetans the essentials of environmental conservation and sustainable development. Tibet Justice Center is a financially responsible organization that prioritizes substantive environmental work for Tibet. We will not spend your money on things like calendars!

You can also stay informed by subscribing to our e-journal, *Trin-Gyi-Pho-Nya: Tibet's Environment and Development Digest* by sending an e-mail to dev@tibetjustice.org with the word “subscribe” in the subject line.

Appendix A: Megoe Tso Timeline

- 1956 China drafts a plan to harness Megoe Tso's water for electricity, as claimed by authorities of Kartse Tibetan Autonomous Prefecture.
- 1987 Ghangkar (Gongga) Mountain listed as National Scenic Area, including Megoe Tso and Renzonghai Lake.
- 1995 Sichuan Party office and provincial government lists Wasi river basin-wide hydropower development (including Megoe Tso project) as the State Council's main project to support Sichuan's Tibetan area development.
- 1997 Wasi river basin-wide development plan's first hydropower plant – 180,000kW Lengzhuguan dam project – gets approved.
- 1998 Kartse TAP government claims 60 million yuan were spent to conduct a wide range of studies on linkages between Mugecuo Natural Scenery Area and hydropower development.
- June 2001 Construction of Lengzhuguan commences. Premier Zhu Rongji calls hydropower development “the road to prosperity for Ganzi.”
- 2001 “Experts” forced to endorse Megoe Tso dam project feasibility study and EIA (Environmental Impact Assessment) in a 2-hour meeting without ever even visiting the site.
- May 2003 Local Tibetans make objections in writing to concerned officials. The objections are made available to Premier Wen Jiabao by Phuntsok Wangyal, a Beijing University professor of astrology and philosophy.
- May 28, 2003 China Youth Daily publishes an article “Mugecuo Lake calling for help.” On the same day, a State Council research team, comprised of officials from the State Environment Protection Agency, State Tourism Board and China Huaneng Group, arrives at Kartse.
- June 2003 Wen Jiabao sends an “inter-agency task force” to investigate the project.
- June 13, 2003 At a meeting with local Tibetan officials, the task force and representatives of Huaneng find their views “openly” differ. The Tibetan officials and the task force submit contradictory reports to the State Council.
- June 21, 2003 Radio Free Asia reports, “Tibetans say proposed dam would hurt environment.” According to the report, “The Huaneng Co. has begun lobbying Karze officials to back the project, flying a group of them to Beijing to meet Central government officials.”

- June 2003 The first ever Chinese anti-dam conference is held in Beijing at the Chinese Academy of Social Sciences. Concerns over Megoe Tso dam project are raised during a review of current Chinese dam projects.
- June 30, 2003 In a letter to China Youth Daily, the government of Ganzi Tibetan Autonomous Prefecture blames the Daily for publishing a “exaggerated” and “biased” article (dated May 28, 2003) that created “negative political impacts and internationalization of Mugecuo issues.”
- July 14 2003 Tibetan Government-in-Exile releases its white paper on Tibet’s environment, a response to the Chinese white paper. In the press release, the Tibetan Government-in-Exile urges China's central government to “step in to save this scenic jewel of world importance, so it can be protected for all humanity.”
- July 2003 Tibet Justice Center circulates a briefing report on the current status of the dam projects on Megoe Tso and Rezhonghai Lake.
- Sept. 2003 The Megoe Tso project gets approved by China’s State Development and Reform Commission.
- Oct 7, 2003 Tibet Justice Center associates and others write to Sichuan Tourism Bureau and other relevant state and local government offices that have an interest in protecting Megoe Tso for the sake of tourism.
- Oct 13, 2003 International Tibet Support Network, International Rivers Network, Habitat International Coalition, Sierra Club, and Ecological Society of the Philippines urge Wen Jiabao to conduct thorough needs and options assessments for energy, water, and development following the recommendations and guidelines set forward by the World Commission on Dams.
- March 2004 Construction equipment reported to be in place at Megoe Tso, but no workers are observed at the project site.
- April 7, 2004 International Rivers Network and Tibet Justice Center issue a Media Advisory welcoming Premier Wen Jiabao’s suspension of dam plans on Salween River, and urge the Premier to go a step further and revoke the Megoe Tso project.
- April 2004 Representatives from International Rivers Network and Tibet Justice Center meet with Chinese civil society leaders to plan next steps for saving Megoe Tso.
- June 6, 2004 Chen Wuyi, the Director of Guodian Chengdu Exploration and Design Institute, says that the feasibility study of Megoe Tso project has been approved and that they are currently selecting the best design.
- June 20, 2004 RF - Rogaland Research, a Norwegian “independent research institute” publishes a “Confidential” report titled, “Preliminary design the location of unlined pressure tunnel at Mugecuo pumped storage hydropower project.”

- July 2004 A group of independent Chinese environmental experts and reporters go on a 9-day trip to Southwest Sichuan to investigate conditions on the ground, including Megoe Tso and Renzonghai Lake. They find hydro-power construction trends in the region to be “crazy and out of control.”
- October 2004 Tibet Justice Center and International Rivers Network representatives meet with Chinese environmentalists to discuss future actions to save Megoe Tso.
- Nov. 2004 Tibet Justice Center expresses concerns about the project at the World Conservation Congress (IUCN 2004) in Bangkok, one of the largest meetings addressing global environmental policy in the world.

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<http://www.tibetjustice.org/tringyiphonya>

Environment Desk, Tibetan Government-in-Exile: www.tibet.net/diir/eng/enviro/