

(III) Regional Hydropower Projects: What Can be Learned from Successful and Unsuccessful Public Resistance?

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Introduction

Hydropower projects are increasingly in demand, especially since they are considered to be environmentally friendly. This trend does not take into account the social, cultural and ecological destruction that accompanies dam construction. Therefore, the decision to build a hydropower plant cannot be made by a country's government alone, but has to take into account a large variety of stakeholders with at times widely diverging interests. In the course of this paper, a closer look is taken at why and how civil resistance against such dam constructions were successful and if any patterns could be identified that future protesters could apply. In this context, resistance is understood as any conscious action undertaken against a hydropower project, such as protests, petitions, reports or media campaigns etc.

With regard to hydropower, both the government of China and India heavily rely on this form of power generation to supply the electricity necessary in order to sustain their rapid economic development. Today, China already has the most hydropower plants installed worldwide, even though it has tapped only 24 percent of its total hydropower potential.¹ Among the Asian countries, its role in hydropower productions has noticeably increased, from 2.9 percent in 1973, to almost 20 percent in 2011.² In India, the situation is similarly tempting, since only about 19.9 percent of its hydropower potential has been developed thus far³ and in the face of constant rising energy consumption and the demands of the world community for "clean" and sustainable energy sources, both countries are coming to rely heavily on hydropower plants to fit the bill.

In the light of these facts, 14 prominent dam construction projects that received international media coverage are described in this chapter. These projects are analyzed in order to identify potential factors that could contribute to a more successful protest with regard to public anti-dam resistance. Focusing on the eastern Himalayan region, five cases of hydropower plants of Chinese companies in China, four cases of Chinese dam building companies engaging in projects located on neighboring states' territory, excluding India, and five cases of Indian companies building hydropower plants in India were closely reviewed.⁴ This was done by analyzing completed or to-be-completed projects, where resistance failed, as well as stopped or halted ones, where counter-measures proved more successful.

1 Hydropower projects of Chinese companies in China

The market for energy obtained from hydroelectric power plants is flourishing in China. The high energy demand, fueled by the even higher development goals for the economy, creates a profit potential Chinese hydropower companies are more than willing to seize. As a consequence, the country's hydropower capacity rose from 100 gigawatts in 2004 to 213 gigawatts in 2010 according to China's National Energy Administration, with projections for 2020 predicting a further increase to 400 gigawatts.⁵ However, possible construction sites for these large-scale projects are often found in inhabited areas, which would need to be resettled for the land to be flooded and the dam to be built, destroying the local wildlife, as well as the livelihood and cultural heritage of the moved. In the following, five highly protested examples of Chinese dam building companies operating within China are reviewed with the aim of deriving different courses of action for the affected population.

1 OECD/IEA 2010.

2 OECD/IEA 2013.

3 Wirsing 2012.

4 Multiple names exist for the projects analyzed. Internationally known names were used.

5 Beitarie 2011.

1.1 Completed and construction of hydropower projects

In 2004, the Chinese government approved the proposal to build the highly controversial *Pubugou hydropower project* in the province of Sichuan in South West China. With a capacity of 3,300 to 3,600 megawatts, the large dam would resettle more than 100,000 people, or roughly 30 percent of the local inhabitants and would flood about 14 percent of the local farmland.⁶ The population, feeling left out of the decision-making process, set out to forcefully protest against the construction, occupying the building site with more than 100,000 protesters.⁷ Due to the aggressive nature of the protest and the threats made by anti-dam groups to attack the site with explosive devices, the Chinese government perceived the resistance as a danger to their power and decided to quickly dissolve the protest. Among many others, Chen Tao, the leader of the protest was arrested and imprisoned. He was later sentenced to death for allegedly having killed one police officer during their demonstration.⁸ Although the dam opponents achieved a temporary halt in construction in September 2006, the dam was successfully completed in 2010, hence deeming the strategy of protesting dam construction sites in China by means of political pressure and violent conflicts as counter-productive.

The destruction of the regions' unique wildlife, the extinction of endangered fish species and fear of heightening the risk of earthquakes in an already seismically active region were three of the most pressing reasons the inhabitants of a village in Xiluodu, located at the border of Yunnan and Sichuan, decided to protest against the construction of the *Xiluodu dam*. China's Three Gorges Cooperation started its building in 2003, but after it was discovered that the dam constructors were operating without a valid Environmental Impact Assessment (EIA), construction had to be suspended.⁹ In the course of its erection, the second largest hydropower project in China would resettle 32,000 to 50,000 people – a measure that was vindicated with the government's West Development Strategy, which is said to promote the economy of diverse parts of China's West.¹⁰ Hence, in 2005, the Chinese construction company resumed its building activities despite the initially missing license, estimating that the dam will be operational in 2014.

Beginning construction in 2009, the *Zangmu hydropower station* in Tibet will make use of the Brahmaputra River streams. Integrating its construction in the 11th Five Year Plan, the dam project is planned to promote the development of Tibet's hinterland regions, spurring infrastructure investments and the local economy.¹¹ Among the neighboring states, especially India, skepticism remains towards its construction, fearing the diversion of the river and the lack of water resources downstream,¹² especially since China is not releasing any information pertaining directly to the project. The dam is expected to be finalized in 2015.

Whether or not the *Xiaonanhai dam* in the city of Luohuang, 700 kilometer upstream of the Three Gorges dam is going to be finalized remains uncertain. The prestige project of former party secretary of Chongqing Municipality Bo Xilai, that was planned to dam the Jinsha river was halted in 2012, after its dubious decision-making process came to light. In an open letter to Wen Jiabao, the dam challengers – which includes numerous intellectuals, scientists and spokespersons of renowned international NGOs – expressed their doubts regarding the economic feasibility of the hydropower project and their fears of far-reaching ecological impacts.¹³ As an alternative, the dam contestants proposed that the electricity needed to remedy the local power shortages should be provided by using hydro energy generated by already established dams upstream.¹⁴ Whether or not the projects will be scrapped for good, remain to be seen.

6 Mertha 2008: 68.

7 Beitarie 2011.

8 BBC News 2006.

9 International Rivers 2012.

10 Water-Technology 2014.

11 Yunnan/Haining 2011.

12 Varma 2010.

13 Shi 2012.

14 The Economist 2013.

1.2 The case of a stopped hydropower project

One of the most prominent sites of a successfully halted hydropower project is the *Tiger Leaping Gorge dam* in the province of Yunnan. One of the deepest river canyons worldwide, the Chinese government in 2004 announced their plans to erect a dam in this legendary gorge, deciding to resettle some 100,000 peasants of the local Naxi minority. With the help of numerous internationally renowned non-profit organization and environmental NGO's like Friends of Nature, Greenpeace or International Rivers,¹⁵ but also by obtaining various professional expert opinions, the dam construction was stopped in 2004 and has not been resumed since. The anti-dam movement peacefully protested the building site, arguing not only with the destruction of a World Heritage Site and the potential environmental consequences, but also suggested alternative locations for a hydropower project to be built.

2 Hydropower projects of Chinese companies abroad

As mentioned before, the opportunities offered by hydroelectricity in the energy market are steadily on the rise, not only in China, but in neighboring Asian countries as well, in this case Laos, Cambodia and Myanmar. The Chinese dam builders are looking to reap their share of the profit of being involved in these projects.

2.1 Completed hydropower projects

The *Nam Mang 3* Hydropower project in Laos was completed in 2005,¹⁶ after a rough start in 2001 without an EIA. This was a joint-venture project between Chinese builders and the Electricité du Laos (EDL), which at the time was state-owned and had a budget of 63 million US dollars,¹⁷ and was allowed to continue due to EDL applying for "Emergency Procedures" status from the Ministry of Industry and Handicraft. A small-scale local protest occurred in November 2002 that drew the attention of the World Bank, the IMF and the Asian Development Bank about project approval processes and procurement procedures. The protest caused a five-day halt in construction, although nothing further came from it, even though the project impacted 15,000 people of which at least 2,700 had to be relocated and no compensation plans were disclosed to them.¹⁸ The resistance had little effect in the face of the Government of Laos' ambition to provide water and electricity so as to graduate from its Low Development Country status by 2020.¹⁹

2.2 Stopped or halted hydropower projects

Construction on the *Weigyi dam*, one of five dams proposed on the Salween River in 2005, has still not started. It was in 2005 that the Electricity Generating Authority of Thailand signed a Memorandum of Understanding with Myanmar to develop the area to provide electricity and foreign income, with Sino-hydro as the proposed builder.²⁰ The projects lie in the Karen State in Myanmar, which has a history of violent conflicts with the national army, with bad impacts on the Karenni minority. Resistance has usually been in the form of NGO reports on the situation of the Salween river and its wildlife as well as the state of the people and the livelihoods of the estimated 30,000 that will be affected.²¹ 2013 saw a large local protest against construction which included thousands of Karen, Buddhists monks and a Christian pastor.²² While protests have delayed the start of the project, the strong desire of Myanmar and Thailand to develop their hydro potential has not seen a cancelation of the project.

The *Lower Sesan 2* hydropower project in Cambodia has experienced similar government backing. As in November 2012, it received approval from the Cabinet Office, even though its EIA failed to meet

15 International Rivers 2012.

16 Hydropower Kunming Engineering Corporation 2012.

17 China International Water and Electric Corporation 2014.

18 International Rivers Network 2003.

19 Phouthonesy 2012.

20 Burma Rivers Network 2008.

21 Salween Watch/SEARIN 2004.

22 Karen News 2013.

international best practices.²³ A study by the National Academy of Sciences, released in the same year, showed that the dam would cause irreparable damage to the wildlife and has significant impact on the villages along the Sesan, Sekong and Srepok rivers.²⁴ The project though was a joint venture by Cambodia's Royal Group and China's Hydrolancang International Energy Co. with an estimated cost of 781 million US dollars. Resistance came in different forms: In June 2013, international donors (such as Australia, Finland, Japan and the USA) called on the Cambodian government to submit the project to the Mekong River Commission's prior consultation process due to its transboundary impact, and affected riparian villagers sent a petition to the Chinese Embassy to call a halt to the project in February 2014.²⁵ Inopportunistly, the previous year, the project commenced with a law that provided guaranties to the investors and was only halted in October 2013 due to allegations that the logging to clear the site was happening outside of the allowed area.²⁶ Even though it was halted, the January 2014 release of the relocation and compensation plans show that the project has not been given up.

The controversial case of the *Myitsone dam* in Myanmar was agreed upon by the military government and China Power Investment in 2005. Construction began in 2007 but there has been very strong disagreement to the project which is located in the troubled Kachin State, where hostilities resumed again in 2011. Resistance has been seen in many forms but Nobel Laureate Aung San Suu Kyi has been a vocal opposition leader and has drawn international attention to the dangers both environmental and social that the project poses.²⁷ The project was called to a halt in September 2011, and further discussion postponed till after the 2015 elections. However, China Power Investment has been pushing the government to restart the building as 90 percent of the energy is to go to China,²⁸ but March 23, 2014 saw the start of a long-march protest from Yangong to the dam site – a journey of 2,400 km and two months.²⁹ This can be seen as an expression of the people's doubt in the idea that the government will pay attention to the reports about the damage the dam will cause and may cave in to Chinese pressure to resume construction.

3 Hydropower projects of Indian companies in India

The Indian government and its Central Electricity Authority have prioritized the development of hydropower projects throughout Northeastern India, and Indian dam building companies tend to be state-owned businesses. In comparison to China, resistance in India has easier access to specific legal instruments and uses intensively lobby instruments, such as demonstrations, petitions, open letters or media campaigns. In spite of the existence of these instruments, their use does not guarantee success of action, but nevertheless they constitute a legitimate alternative for the opponents of dam building.

3.1 Completed hydropower projects

Despite the ongoing mass protests against the construction of the *Lower Subansiri dam* on the border of Assam and Arunachal Pradesh states, and the hunger strike of the anti-dam activist Akhil Gogoi, the resistance was still not successful. Even though it included many conceivable forms, such as organized protests by multiple local organizations (e.g. the peasants' body Krisham Mukti Sangram Samiti or All Assam Students Union),³⁰ demonstrations, blockades, open petitions³¹ and petitions directed to a court,³² the project is currently almost completed. However, there remain some instruments of alleviating the negative effects of the dam construction such as the petition to the National Green Tribunal (NGT), which has accepted a case concerning ecological issues downstream of the project.³³

23 Mekong Watch 2013.

24 3S Rivers Protection Network 2014.

25 Naren 2014.

26 International Rivers 2013.

27 Asia News 2014.

28 International Rivers 2011.

29 Asia News 2014.

30 The Shillong Times 2012.

31 Gogoi no date

32 The Telegraph 2012.

33 Web India 123 2014.

3.2 Stopped or halted hydropower projects

Characteristic for the Indian government is the argument that dam construction contributes to the development of the respective region. This argumentation rarely coincides with reality and the corresponding label of the protest may have helped to stop the *Tipaimukh Dam* in Manipur. Protesters used such strong arguments, as half of Manipur is to be sacrificed for a little bit of electricity and additionally endangers food security of the region. The dam construction would result in a submersion of more than 275 km² of forests and displacement of 60,000 people in Manipur, including the indigenous Zeliangrong and Hmar communities, besides a negative impact on 40,000 people in Bangladesh.³⁴ They also claimed that the economic independence of the region is put at risk, which is exactly the opposite of what was promised. Another obstacle for the dam constructors was the fact that Bangladeshi NGOs put pressure on their government who was not informed about the construction plans beforehand³⁵ and at first did not take the risks seriously.³⁶ They subsequently negotiated with the Indian government, which could have contributed to the protesters' success.³⁷

As already mentioned above, the Himalayan region is seismically vulnerable,³⁸ which makes the region an unsuitable site for any construction, especially large and heavy reservoirs that are necessary for hydropower plans.³⁹ Dams can induce earthquakes, known as Reservoir-Induced Seismicity,⁴⁰ and at the same time earthquakes can destroy dams and release large amounts of water devastating downstream settlements. Thus, a dam can endanger the stability and security of the region, and the reference to earthquake risks in such areas might reinforce the likelihood of stopping the dam construction (as it was in the case of the *Tipaimukh Dam* and the *Dams on the Teesta River*).⁴¹ Moving resistance from being a local issue to a national one, by for example addressing national responsible stakeholders like the Forest Advisory Committee (FAC), might prove more effective. Forest clearance is often a prerequisite of dam construction and the FAC is responsible for forest conservation and thus could constitute a veto player, as in the cases of the *Tipaimukh* and *Dibang Dams*. There, experts rejected flooding forests, concluding that the proposal for clearance of forest land "is disproportionate to [their] power generation capacity."⁴²

Another strategically important step could be the involvement of influential stakeholders who could be a symbol of the resistance, attracting media and governmental attention. Numerous parties could be identified that were involved in the resistance, such as experts giving their opinions and publishing studies, national institutions (like the FAC – in the case of *Tipaimukh* and *Dibang Dams* – or the NGT – in the case of *Lower Subansiri Dam*), national prominent figures (as in the case of Loharinag Pala Hydro Power Project, where the renowned Professor G.D. Agrawal announced an indefinite hunger strike), and also neighboring states (as in the above mentioned *Tipaimukh* case).⁴³ Potentially the Supreme Court could be an influential stakeholder as in the case of the Uttarakhand region, where it prohibited any further dam construction projects.⁴⁴ Due to concerns over regional flash floods, the Court required a scientific cumulative impact study of hydropower projects over doubts about the possible inducement effects caused by the projects.

4 Reasons for successful and unsuccessful public resistance

The outcome of public resistance against the building of hydropower projects is significantly related to the relative political power and social leverage, the previously mentioned respective actors bring to the table. The dam building companies in India and in China exert considerable influence due to the high

34 International Rivers (no date) b.

35 Wiser.org 2011.

36 NewAge 2009.

37 Asia Times 2011.

38 Cf. Paudyal/Panthi 2010.

39 International Rivers 2009.

40 International Rivers (no date) a.

41 Yunnan Natural and Cultural Heritage Conservation Council (no date).

42 Mehta 2013.

43 Wiser.org 2011.

44 Hindustan Times 2013.

investment volume of their industrial sector against which the objections of opposing groups can rarely compete. In both countries an initial success in halting the hydropower project does not necessarily result in its definite abandonment. The protest policies in both countries have similarities as well as differences due to the distinctions of the two political systems.

The nature of the relationship between the government and the affected people influences the government's tolerance of specific forms of resistance. In China, where the government traditionally has a rather extensive influence on virtually every sphere of life, overly rigorous protests are quickly dispersed by official forces, whereas these forms of resistance might still be within the acceptable scope of action in other Asian countries, like in India. In contrast to China, Indian protesters have at their command more diverse legal instruments – such as demonstrations, petitions or institutional pressure – to express their counteraction against the dam building. In China there remains less room for maneuvering, since resistance is being interpreted either as legitimate/norm-conform or state-endangering/development-endangering/nation-endangering. Therefore, more peaceful and rather subtle forms of resistance in China are proving more promising than confrontational actions that could be interpreted as a coup – e. g. publication of studies and expert opinions or reference to existing laws or guidelines.

There are several potentially successful instruments and strategies of which dam protesters in India and in China can make use of to improve their chances of stopping a dam building project:

- Raising the local as well as the international awareness for the risks and damages the dam construction would impose on the resident population, can emerge as a quite persuasive argument in favor of the opponents. The importance of the resilience and empowerment of the local civil society and civil society groups with regard to long-term resistance cannot be overstated. Once the protest obtains an international audience, the affected population's concerns reach a much greater audience, considerably increasing their arguments' effectiveness.
- The involvement of scientific expertise is relevant to verify the negative ecological, social and economic impacts of a respective dam construction project. Those arguments indicate the extent of necessary resettlement and deforestation resulting from damming and point to the destruction of economic and ecological livelihood of the site while taking into consideration the risks of heightened seismic activity through dam building.
- The involvement of an internationally respected expert or renowned public figure for the protest brings the resisters cause to a more personal level, since it becomes associated with an effected face.
- One of the most crucial aspects for the success of the resistance was to initiate it early enough to counter the later large investment sums while ensuring that the opposition movement endured, keeping it rolling even in times of weakening public interest and media coverage. In addition, making use of spill-over effects of a successful resistant action in one region can prove to be a promising strategy.
- Realistically it cannot be assumed that abandoning hydropower completely is an option, and therefore a certain degree of willingness to compromise is crucial, e. g. by agreeing upon an alternative construction site. Proposing a less destructive location for a dam construction can be part of this policy.
- Institutional pressure on different political levels and branches shows evidences of being a promising strategy. Insisting on the proper execution of an EIA is a crucial aspect of it.

The analysis of the cases mentioned above showed that the application of these instruments and strategies does not necessarily guarantee success. It is not always clear why resistant action fails as in some cases a variety of anti-dam measures were utilized without success. Whatever the case may be, adjusting the combination of the instruments and strategies of resistance and the subsequent labeling of the action should be taken into account for each individual case so as to lead to a more promising outcome.

In summary, when considering a resistant action against a dam construction project, it is vital to keep in sight a balance between focusing on a well-planned and appropriate strategy, the timing of the start of the action, as well as the stakeholders involved, and all this while taking into account the respective political and cultural context of the dam project's location.

5 Conclusion

The initial goal of this paper was to identify possible patterns of resistance which could be used by future dam contesters. However, this proved to be problematic, as in each of the analyzed country sample projects, fundamentally differing circumstances underlay the action possibilities available to the various protestors. Among others, the paper's approach had the restriction of a lack of access to relevant information about protest and financing and in some cases even to the current status of the project.

In China's current Five Year Plan, the government heavily relies on hydropower energy to replace coal-fired power plants in order to further reduce CO₂ emissions.⁴⁵ Villages located too close to potential building sites become collateral damage of the general public interest to meet the continuously growing energy demand. Until now, opposition against these projects did not prove to be highly effective, and when they were, the means of resistance were adjusted not to be critical of or violent against the Chinese regime. No ultimate dam refutation could be identified, that was universally successful in blocking the Chinese government's attempts to dam a river, but generally, critique was better received when referring to the collective gain the Chinese people would have renouncing a dam construction.⁴⁶ Also, interpreting government policies and official development plans for own purposes are suitable means of protest.⁴⁷

In the case of Chinese companies in neighboring Asian countries, negotiations around these projects involve large sums of money, where the government or a state-owned company is involved. This has significant impact on the local communities, often minority groups, who tend to be on unfriendly terms with their governments. Therefore, attention to the form of resistance can be considered, but frequently, the individual nature of the settings, the stakeholders, the political climate, and country involved has greater effect on the continuation of the project.

The analysis of the cases in India showed gaining public interest, applying pressure on different institutions like ministries and involving national renowned personalities could be a good combination for achieving the goal of stopping a dam project, that has too much of negative developmental impact in comparison to its economic gains.

In general, both the Chinese and the Indian governments have not yet signed the UN Convention on the Non-Navigational Uses of International Watercourses (1997) or any bilateral agreements, which would provide a legal framework for action to prevent harm for downstream partners and local communities. Guidelines exist which could perhaps be used as an alternative platform by which protestors can claim their right against dam construction companies.⁴⁸ Due to the large initial investments, the incentives to pursue hydropower projects despite probable inefficiency is very high and dam construction companies are unlikely to withdraw due to 'sunken costs' that can never be reclaimed. For this reason, the timing as well as the maintaining of resistance is very important. However, mitigation of negative impacts is possible through discussion of alternative locations as well as being open to compromises on relocation and compensation. Important in this process is that all stakeholders come to the table.

Bibliography

3S Rivers Protection Network (2014): Fact Sheet of the Lower Sesan II Hydropower Dam Project. [online] <http://www.3spn.org/fact-sheets/> (Accessed on January 20, 2014).

Asia News (2014): Burmese Activists' "Long March" for the Closure of Myitsone Dam. [online] <http://www.asianews.it/news-en/Burmese-activists%E2%80%99-long-march-for-the-closure-of-Myitsone-dam-30658.html> (Accessed on March 20, 2014).

Asia Times (2011): Tipaimukh Dam Pact a Setback to Hasina, 6 December 2011. [online] http://www.atimes.com/atimes/South_Asia/ML06Df03.html (Accessed on March 10, 2014).

45 KPMG 2011.

46 Collective gains among others included the preservation of cultural heritage or endangered fish species, the conservation of scarce (water) resources and the containment of possible negative impacts due to dam construction downstream.

47 For example by referring to the compliance of dam constructors to Environmental Impact Assessments.

48 See Annex for various relevant guidelines.

- BBC News (2006): China 'Executes Dam Protester', BBC Online, 7 December 2006. [online] <http://news.bbc.co.uk/2/hi/asia-pacific/6217148.stm> (Accessed on March 27, 2014).
- Beitarie, Rachel (2011): Surge of New Dams in Southwest China Produces Power and Public Ire. In: Circle of Blue, 22 March 2011. [online] <http://www.circleofblue.org/waternews/2011/world/burst-of-new-dams-in-southwest-china-produces-power-and-public-ire/> (Accessed on March 27, 2014).
- Burma Rivers Network (2008): Weigyi Dam. [online] <http://burmariversnetwork.org/index.php/dam-projects/salween-dams/weigyi> (Accessed on January 14, 2014).
- China International Water and Electric Corporation (2014): Nam Mang 3 Hydropower Development Project, Laos. [online] <http://english.cwe.cn/show.aspx?id=1855&cid=22> (Accessed on March 10, 2014).
- Gogoi, Gaurab (no date): Petition: Stop the Ongoing Project to Secure the Life and Biodiversity of Assam. [online] <http://www.change.org/en-IN/petitions/big-dam-over-subansiri-stop-the-ongoing-project-to-secure-the-life-and-biodiversity-of-assam> (Accessed on January 10, 2014).
- Hindustan Times (2011): 'Sikkim Quake May Have Been Induced by Dams Across Teesta', 21 September 2011. [online] <http://www.hindustantimes.com/India-news/WestBengal/Sikkim-quake-may-have-been-induced-by-dams-across-Teesta/Article1-748547.aspx> (Accessed on March 20, 2014).
- Hindustan Times (2013): No New Hydroelectric Power Project in Uttarakhand: SC, 13 August 2013. [online] <http://www.hindustantimes.com/india-news/newdelhi/no-new-hydroelectric-power-project-in-uttarakhand-sc/article1-1107666.aspx> (Accessed on March 27, 2014).
- Hydropower Kunming Engineering Corporation (2012): Nam Mang 3 Hydropower Project in Laos. [online] http://www.khidi.com:8083/KHIDI2009/KD2011E/K_Article.asp?ListName=Overseas%20Projects&ids=55145&DataBaseName=XzxzMainMsg (Accessed on January 16, 2014).
- International Rivers (2009): A Faultline Runs Through It: Exposing Hidden Dangers of Dam-Induced Earthquakes. [online] http://www.internationalrivers.org/files/attached-files/ris_final_lorez2.pdf (Accessed on March 27, 2014).
- International Rivers (2011): Irrawaddy Myitsone Dam. [online] <http://www.internationalrivers.org/campaigns/irrawaddy-myitsone-dam-0> (Accessed on January 16, 2014).
- International Rivers (2012): Jinsha River Dams, Jinsha River (Upper Yangtze River) Hydropower Projects List, 15 November 2012. [online] <http://www.internationalrivers.org/resources/jinsha-river-dams-3604> (Accessed on March 27, 2014).
- International Rivers (2013): Lower Sesan 2 Dam. [online] <http://www.internationalrivers.org/campaigns/lower-sesan-2-dam> (Accessed on January 17, 2014).
- International Rivers (no date a): Earthquakes Triggered by Dams. [online] <http://www.internationalrivers.org/earthquakes-triggered-by-dams> (Accessed on March 27, 2014).
- International Rivers (no date b): Tipaimukh High Dam. [online] <http://www.internationalrivers.org/resources/tipaimukh-high-dam-3499> (Accessed on January 10, 2014).
- International Rivers Network (2003): Report: New Lao Dam Embroiled in Controversy. [online] <http://www.internationalrivers.org/files/attached-files/052003.nm3report.pdf> (Accessed on February 13, 2014).
- Karen News (2013): 2,000 Karen Call for Stop to Salween Dams, 19 March 2013. [online] <http://karen-news.org/2013/03/2000-karen-call-for-stop-to-salween-dams.html/> (Accessed on March 20, 2014).
- KPMG (2011): China's 12th Five-Year Plan Energy, April 2011. [online] <http://www.kpmg.com/cn/en/IssuesAndInsights/ArticlesPublications/Documents/China-12th-Five-Year-Plan-Energy-201104.pdf> (Accessed on March 30, 2014).
- Mehta, Samir (2013): Experts Reject Flooding Forests for Tipaimukh and Dibang Dams, 8 August 2013. [online] <http://www.internationalrivers.org/blogs/257/experts-reject-flooding-forests-for-tipaimukh-and-dibang-dams> (Accessed on March 10, 2014).

- Mekong Watch (2013): Lower Sesan 2 (LS2) Hydropower Project. [online] <http://www.mekongwatch.org/english/country/cambodia/LS2/index.html> (Accessed on March 20, 2014).
- Mertha, Andrew (2008): *China's Water Warriors: Citizen Action and Policy Change*. Cornell University Press, USA.
- Naren, Kuch (2014): Villagers Want Compensation for Lower Sesan 2 Dam Construction. *The Cambodia Daily*, 14 February 2014. [online] <http://www.cambodiadaily.com/archives/villagers-want-compensation-for-lower-sesan-2-dam-construction-52244/> (Accessed on March 27, 2014).
- NewAge (2009): Tipaimukh Dam: A Real Concern for Bangladesh, 23 June 2009. [online] <http://banglapraxis.wordpress.com/2009/06/22/tipaimukh-dam-a-real-concern-for-bangladesh/> (Accessed on March 10, 2014).
- OECD/IEA (2010): *Renewable Energy Essentials: Hydropower*. International Energy Agency (IEA). [online] http://www.iea.org/publications/freepublications/publication/Hydropower_Essentials.pdf (Accessed on March 24, 2014).
- OECD/IEA (2013): *Key World Energy Statistics*. International Energy Agency (IEA), France. [online] <http://www.iea.org/publications/freepublications/publication/KeyWorld2013.pdf> (Accessed on March 24, 2014).
- Paudyal, Harihar / Ananta Panthi (2010): Seismic Vulnerability in the Himalayan Region. In: *Himalayan Physics 1*, 14–17.
- Phouthonesy, Ekaphone (2012): Lao PDR: Please Give Us a Chance to Rise Above Poverty. *Lao People's Democratic Republic: Energy*, 28 November 2012. [online] <http://laospdrnews.wordpress.com/category/energy/page/2/> (Accessed on March 23, 2014).
- Rahaman, Muhammad Mizanur / Olli Varis (2009): Integrated Water Management of the Brahmaputra Basin: Perspectives and Hope for Regional Development. In: *Natural Resources Forum 33*, 60–75.
- Salween Watch / SEARIN (2004): *The Salween Under Threat: Damming the Longest Free River in Southeast Asia*. [online] http://www.livingriversiam.org/4river-tran/4sw/swd_book_en.pdf (Accessed on January 10, 2014).
- Shi, Jiangtao (2012): Bo may be gone but his pet project is going ahead. *South China Morning Post*, 26 April 2012. [online] <http://www.scmp.com/article/999249/bo-may-be-gone-his-pet-project-going-ahead> (Accessed on March 28, 2014).
- The Economist (2013): Opening the Floodgates. *Business Insider*, 22 September 2013. [online] <http://www.businessinsider.com/xiaonanhai-dam-on-the-yangzi-river-2013-9> (Accessed on March 30, 2014).
- The Shillong Times (2012): NHPC Blockade at Gerukamukh Dam, 22 December 2012. [online] <http://www.theshillongtimes.com/2011/12/22/nhpc-blockade-at-gerukamukh-dam/> (Accessed on January 10, 2014).
- The Telegraph (2012): SC petitioned to 'save' Subansiri – Risks to river ecosystem highlighted, 11 September 2012. [online] http://www.telegraphindia.com/1120911/jsp/northeast/story_15961012.jsp (Accessed on March 10, 2014).
- Varma, K. J. M. (2010): China Assures India Brahmaputra Dam Not Aimed at It, 16 November 2010. [online] <http://news.outlookindia.com/items.aspx?artid=701431> (Accessed on March 30, 2014).
- Water-Technology (2014): Xiluodu Dam, Jinsha River, China. [online] <http://www.water-technology.net/projects/xiluodu-dam-jinsha-yangtze-china/> (Accessed on March 30, 2014).
- Web India 123 (2014): NGT admits case on ecological concerns over Lower Subansiri dam, 6 January 2014. [online] <http://news.webindia123.com/news/articles/India/20140106/2315685.html> (Accessed on March 10, 2014).
- Wirsing, Robert G. (2012): *The Brahmaputra: Water hotspot in Himalayan Asia*, June 2012. GWF Discussion Paper 1221, Global Water Forum, Canberra, Australia. [online] <http://www.globalwaterforum.org/2012/06/02/the-brahmaputra-water-hotspot-in-himalayan-asia/> (Accessed on November 1, 2013).

Wiser.org (2011): Tipaimukh Dam of India: Probable Disaster for Bangladesh, 14 December 2011. [online] <http://archive.riversymposium.com/2006/index.php?element=06HOSSAIN+MANowar> (Accessed on September 2, 2014).

Yannan, Jiang / He Haining (2011): A New Era for Tibet's Rivers. chinadialogue, 17 January 2011. [online] <https://www.chinadialogue.net/article/show/single/en/4055> (Accessed on March 30, 2014).

Annex: Existing guidelines on the development and construction of dams

World Commission on Dams Guidelines 2000

They presented a report that reviewed the effectiveness and alternatives to large dams as an energy resource. They also developed acceptable criteria, standards and guidelines concerning all aspects of the dam building process. For more information see: <http://www.unep.org/dams/WCD/>.

Asian Development Bank Safeguard Policy Statement 2009

This statement deals with the policies that projects take towards the environment, indigenous peoples and the involuntary resettlement of those affected and works towards promoting the sustainability of the projects they are involved in. For more information see: <http://www.adb.org/documents/safeguard-policy-statement>.

Guidelines for Environmental Protection in Foreign Investment and Cooperation 2013

These guidelines were given out by the Ministry of Commerce and the Ministry of Environmental Protection of the People's Republic of China on how Chinese companies should behave with regard to environmental protection in foreign investment and cooperation projects, with regards to social responsibility and sustainability. For more information see: <http://english.mofcom.gov.cn/article/policyrelease/bbb/201303/20130300043226.shtml>.

Hydropower Sustainability Assessment Protocol 2011

This protocol was released by the International Hydropower Association and is an enhanced sustainability assessment tool that deals with the four main stages of hydropower development. For more information see: <http://www.hydrosustainability.org/Protocol.aspx>.

Other guidelines related to individual companies and banks are:

Guidelines for Environmental and Social Impact Assessments of the China Export and Import Bank's Loan Projects 2007

Sustainability Framework of Sinohydro's Environmental Policy 2011