

# China's Investments in Hydropower in the Mekong Region: The Kamchay Hydropower Dam, Kampot, Cambodia<sup>1</sup>

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## Executive Summary

The Kamchay hydropower dam is located 15km from the provincial capital of Kampot province in the south of Cambodia. Standing at over 100 metres in height and with an installed capacity of 194 megawatts, the Kamchay dam is Cambodia's first ever large-scale hydropower project, and is seen by many as a symbol of the increasingly strong ties between Cambodia and China. The dam is being developed by China's largest hydropower company, *Sinohydro*, with financing provided by the *Export-Import Bank of China*. At a cost of approximately US\$280 million, the project was Cambodia's single most expensive infrastructure project and the largest foreign investment in the country's history at the time of its approval. It has since been overtaken by larger and more expensive hydropower projects in the southwest provinces of Koh Kong and Pursat, which are also being developed by Chinese companies.

Based on extensive desk research, interviews, and field visits, this paper seeks to explain the significance of this project in terms of both Cambodia's development and the increasing role China is playing in financing infrastructure developments in the country. The paper looks at the national and institutional safeguards for protecting the rights of affected people and avoiding or mitigating environmental harms, as well as the shortcomings in the application of these safeguards, and opportunities for future reform.

Due to the country's chronic shortage of electricity, the Cambodian Government has been eager to develop the hydropower sector for a number of years, but as one of the world's least developed countries it has limited resources and technical capacity to do so. China has proved to be a willing partner in supporting this burgeoning industry. Over recent years, aid and investment from China has been warmly embraced and at the same time the Cambodian Government has become increasingly frustrated with "traditional" donors and the perceived conditionalities attached to their lending. Chinese aid and investment has the potential to bring significant benefits to Cambodia, and has injected much needed resources into its long neglected infrastructure. However, this also poses new and interesting challenges for those working to encourage donor accountability, corporate social responsibility, and adherence to social and environmental safeguards.

Cambodia's demand for electricity has grown steadily over the past few years, and this rise is predicted to continue. However, the Cambodian energy sector has insufficient capacity to meet the current domestic demand for power, let alone the predicted increase, and only around a quarter of the country is currently connected to grid-quality electricity. These electrification levels are amongst the lowest in Southeast Asia, and in rural areas less than 13% of households are connected. Those who do have access to a grid-quality power supply have to pay prices that are much higher than in neighbouring countries and power supplies can be unreliable. These factors are often highlighted as a major disincentive to potential investors. The Cambodian Government has therefore made the development of the energy sector a key priority, and is working to improve access to more stable and affordable energy supplies, while reducing reliance on imported power from neighbouring countries and decreasing the amount of power generated using expensive diesel fuel.

Until recently, Cambodia's hydropower potential remained relatively untapped. However, this changed when Cambodia's first large-scale hydropower dam at Kamchay was brought online in December 2011. There are also a further four projects under construction in the southwest province of Cambodia. All five projects are being developed by Chinese companies at a combined cost of over US\$1.6 billion, and are set to generate over 900 MW of power.

In 2006, the Chinese state-owned company, *Sinohydro Corporation*, signed a 44 year Build-Operate-Transfer agreement to develop the Kamchay dam. Construction began in 2007 and wrapped up in December 2011. The Kamchay hydropower project consists of two dams: the main dam, with a capacity of 184 MW, and a smaller 10 MW regulator dam located downstream. The total cost of the project is approximately US\$280 million.

*Sinohydro Corporation* (中国水电) is a Chinese state-owned hydropower engineering and construction company with more than 60 years' experience developing hydropower projects across the world. It is China's largest hydropower company and has a 70% market share of the Chinese mainland hydropower sector, which includes construction of the Three Gorges Dam and work on the massive South-North Water Transfer Project. The financier of the Kamchay project is the *Export-Import Bank of China* (中国进出口银行), or *China Exim*. *China Exim* is one of China's three "policy banks" established to finance and promote the export of Chinese products and services. One element of the policy banks' mandate is providing finance for enterprises pursuing China's "Going-Out Strategy" (走出去战略) which since the late 90's has encouraged Chinese enterprises to invest overseas.

In addition to providing a stable source of electricity, the project's draft environmental impact assessment (EIA) lists a number of positive project impacts, including: flood control, road and bridge construction, improved conditions for tourism, and funds for environmental management. However, over the project's construction period, a number of civil society reports and media articles have raised concerns related to the negative social and environmental impacts of the Kamchay project.

The dam is located inside the Preah Monivong National Park – more commonly known as Bokor National Park, and the reservoir floods around 2,000 hectares (20km<sup>2</sup>) of previously forested land. One immediate project impact observed by local people was on water quality. During the construction stages of the project, residents in Kampot town and the surrounding areas began to observe impacts to the quality of their water supply. Downstream communities also said that the flow was drastically reduced and the river became littered with garbage and untreated human waste from the construction site toilets.

There was no resettlement caused by the project, although some people did lose agricultural land to flooding, road construction and construction of poles for transmission cables. As the project is located inside a protected area, where residency and occupation is technically illegal under Cambodia's 2001 Land Law, no one was compensated for loss of land. However, people were compensated for loss of crops. During interviews at the project site, those who were compensated for the loss of trees appeared to be generally happy with the compensation they received. However, a number of disputes did arise during the implementation of the project between the company and those living close to a quarry set up for blasting rocks for use in construction of the

dam. This problem resulted in at least one demonstration and various complaints as flying rocks damaged villagers' homes and crops. Complaints were submitted to a local human rights organization in three different cases, all of which were resolved thereafter in negotiation with the company and provincial officials.

The people most severely affected by the project appear to be those whose livelihoods depend on collecting and selling non-timber forest products (NTFPs) from the local forests. After construction commenced, bamboo collectors suffered a drastic reduction in access to the forests they previously harvested. Already constituting some of the poorest residents in the area, those collectors interviewed for this paper reported a loss of income of between 50-60% after the project commenced construction. Others whose livelihood suffered were those who previously worked as vendors and business people at the Teuk Chhou tourist resort close to the re-regulator dam. The project EIA estimated that income raised at the resort in 2006 was over \$US2.86 million, but this dropped to just over a quarter of that amount by 2010. Neither the NTFP collectors nor those working in tourism at Teuk Chhou have received any compensation for loss of livelihoods.

Various Cambodian laws and regulations are in place that offer some measure of protection and provide safeguards that aim to avoid or minimize negative social and environmental impacts of projects such as the Kamchay dam. However, some of these safeguards are weak, and others are not fully implemented. Although most of the people who lost land and fruit trees to the project's development appear to be content with the levels of compensation they received, there are significant unaddressed problems related to the impacts on livelihoods of those dependent on tourism and NTFP collection.

Cambodian law states that all hydropower projects generating more than 1 MW should conduct an EIA. While conduct of a full EIA constitutes a crucial safeguard, there are key weakness in the process of approval and implementation of many EIAs in Cambodia. Projects are often approved and even implemented prior to completion of a full EIA – even major projects with potentially far-reaching impacts, as was the case with the Kamchay dam. The Kamchay dam was subject to an EIA, but as of September 2011 the final report was still not approved by the Ministry of Environment, despite the fact that project construction commenced in 2007. As the full EIA was still not finalized during the construction stages of the project, neither was there a final Environmental Management Plan officially approved or publicized. Throughout the implementation of the Kamchay project's construction, in the absence of a full and transparent management plan for dealing with the project impacts, many problems were dealt with on a case-by-case basis as and when they emerged. Additionally, the process of the EIA was far from adequate, and meaningful consultation with affected communities was limited and at times, non-existent. A number of public consultation workshops were held, however, no affected community members were invited to these workshops, and civil society involvement was minimal.

Over recent years, there has been much discussion about the nature of Chinese development assistance and overseas investment, especially concerning the lack of (or perceived lack of) social and environmental safeguards attached to Chinese financing. It is true that China has traditionally been reluctant to impose "conditions" on its aid and overseas lending that may be perceived as interfering with the sovereign affairs of recipient countries. However, in recent years there has been a realization in China that improved guidelines and policies need to be developed in order to

ensure that overseas projects are implemented in a way that minimizes negative impacts. Not only would this provide much needed protection for the people and places affected, but it could also increase the sustainability of Chinese funded projects, and reduce the increasingly common negative perception that Chinese investors and developers are unconcerned with the impacts of their projects. Although there is still a long way to go, and the true challenge lies in the implementation of these safeguards, there are some promising signs.

*China-Exim* adopted its own environmental policy in 2004, which was updated by more detailed guidelines published in 2008. The bank's guidelines require overseas projects to complete social and environmental impact assessments before any loan is approved, and require that assessments and monitoring must continue during the loan period, and after the loan has been granted. The guidelines also include requirements for project implementers to abide by host country laws, respect local people's rights to land and resources, deal properly with resettlement issues, and hold open public consultations for projects with severe environmental impacts. Although these guidelines lack detail, they at least provide a minimum standard that *Exim* funded projects can be assessed by, which can be (and has been) leveraged by affected people and civil society in pushing *Exim* to investigate potentially harmful projects. At the time of writing, *Sinohydro* had also developed draft environmental policy guidelines for its overseas operations but had yet to adopt them. In the process of developing these guidelines, *Sinohydro* invited input from the international environmental organization, International Rivers. In recent years *Sinohydro* has also shown willingness to cooperate more with civil society organizations, and in addition to its dialogue with International Rivers, the company has also engaged on community development projects in Laos with the Chinese NGO, Global Environmental Institute (GEI). *Sinohydro's* increased commitment to corporate responsibility is a welcome development, and was no doubt influenced by a number of factors, not least that *Sinohydro* is seeking to bolster its reputation and develop and apply standards that are befitting of a global leader in hydropower development.

Despite the safeguards already existing in Cambodian law, and the nascent policies and guidelines of the project developer and financier, a number of serious impacts at Kamchay have so far gone unmitigated. One of the project's main shortcomings was the lack of adequate environmental impact assessment, public consultation, and mitigation strategies. In some cases this led to conflict with local people, and serious problems had to be resolved on a case-by-case basis. This approach is clearly problematic, and for those people whose livelihoods are dependent on NTFP collection, the negative impacts of the loss of forest access are yet to be resolved. The adoption of high quality guidelines that apply to the various stages of future *Sinohydro* projects, from design, through construction to implementation, could potentially avoid some of the problems that became apparent during the development of the Kamchay dam.

Over recent years the relationship between Cambodia and China has strengthened considerably, and the amounts of development assistance and direct investment committed by China have continued to increase. The Cambodian Prime Minister has on many occasions praised China's support, especially the "unconditional" nature of its aid and investment. Projects such as the Kamchay dam have been lauded by both governments as being symbolic of the strengthening relations between the two countries and necessary for the broader development of Cambodia. But, at the same time many affected people feel that their rights are being steam-rolled in order to make such developments possible. As more mega-projects are agreed and implemented, this

situation will continue and recur unless adequate social and environmental safeguards are more fully developed and properly enforced.

Although much of this case summary focuses on problems with the implementation of the Kamchay project, it is not intended to suggest that the project is a necessarily a bad project or a “lost cause”. Much can still be remedied by a renewed commitment to remedy the harms caused to local people’s livelihoods and to diligently monitor the environmental impacts of the dam now that it has been commissioned. Committing adequate funds and assigning responsibilities for mitigation programs, and involving local people and civil society in the implementation of these programs could provide a positive model for the implementation of future hydropower projects in Cambodia, and other Chinese funded projects. Lessons can also be learned from the Kamchay case by other projects that are yet to be approved, or are at the early stages of implementation.

Despite the gaps in the legislative and policy framework for management of hydropower in Cambodia, existing laws provide important safeguards to protect the rights of affected people and the environment until such time as a more comprehensive framework is developed. However, due to various reasons, including lack of capacity and expertise, inadequate human and financial resources – and in some cases a lack of political will, implementation of these laws is often inconsistent. Monitoring and enforcement in many cases is non-existent. In cases where local regulations are lacking, or enforcement is weak, the safeguards and policies of investors, developers and financiers have the potential to provide protection for both affected people and the environment. China has traditionally been uncomfortable with imposing conditions on its development assistance and foreign investment, preferring instead to rely on local systems and regulations. However, there are signs that this is beginning to change, although it remains to be seen how much further on-going reforms will go, and what their practical implementation will look like. It is clear, however, that if China is committed to a long-term presence in Cambodia, it must enhance the environmental and social safeguards applying to its projects and financing, and commit to their implementation. Only then can China ensure that its projects are sustainable in the long-term and thus able to make a meaningful contribution to poverty reduction and development in Cambodia.



## Introduction

The Kamchay hydropower project is located 15km from the provincial capital of Kampot province in the south of Cambodia. The main dam stands at over 100 metres in height and the project's total installed capacity is just over 194 megawatts (MW). The Kamchay dam is Cambodia's first ever large-scale hydropower project, and is seen by many as a symbol of the strengthening ties between Cambodia and China. The project is being developed by China's largest hydropower company, *Sinohydro*, with financing provided by the *Export-Import Bank of China* (hereafter referred to as *China Exim*). At the time of approval, the project was Cambodia's single most expensive infrastructure project and the largest foreign investment in the country's history. It has since been overtaken by larger and more expensive hydropower projects in the southwest provinces of Koh Kong and Pursat, which are also being developed by Chinese companies.

Due to the country's chronic shortage of electricity, the Cambodian Government has been eager to develop the hydropower sector for a number of years, but as one of the world's least developed countries it has limited resources and technical capacity to do so. China has proved to be a willing partner in supporting this burgeoning industry. At a time when senior figures in the Cambodian Government have become increasingly frustrated with the "traditional" donors and the perceived conditionalities attached to their lending, official development assistance (ODA) and foreign direct investment (FDI) from China has been warmly embraced. Chinese ODA and FDI has the potential to bring significant benefits to the Kingdom, and in recent years has injected much needed resources into Cambodia's long neglected infrastructure. However, this also poses new and interesting challenges for those working to encourage transparency, donor accountability, corporate social responsibility, and adherence to social and environmental safeguards.<sup>2</sup>



As the first project of its kind in Cambodia, the Kamchay dam is an important test case and may set trends in terms of how future hydropower projects are approved and implemented, and how environmental and social safeguards are applied to development projects of Chinese state-owned companies and projects financed by *China Exim*.

This paper has two main areas of focus, the first deals with the background of the Kamchay project, including Cambodia's motivation for developing its hydropower capacities, and the role that China is playing in this. It provides an update on the project's implementation so far and discusses the social and environmental impacts that have emerged during this time. Secondly it

<sup>2</sup> Map taken from homepage of Cambodian Embassy to the United Kingdom.

looks at the safeguards that apply to the Kamchay project (and similar projects) from both the Cambodian and Chinese sides, and identifies areas where compliance has been lacking, and where gaps exist in the safeguards themselves.

This paper is based on desk and field research. Interviews and discussions were conducted with staff from local and international organizations working in Cambodia and the Mekong region, and the author also met with Chinese researchers and conducted a two day field-trip to the project area in September 2011. Focus group discussions were held in one affected community and individual interviews were held with affected people, local company staff, local officials, and a representative of Sinohydro.

## Hydropower in Cambodia

### Cambodia's energy shortfall

Cambodia's demand for electricity has grown steadily over the past few years, and according to one report based on data supplied by the Cambodian Ministry of Industry, Mines and Energy (MIME), demand reached just over 430 MW in 2010. This was predicted to rise to 1,349 MW by 2015, and to 2,401 MW by 2020.<sup>3</sup> An Asian Development Bank (ADB) technical report from 2010 lists much lower projections: 1,008 MW in 2015 and 1,610 MW in 2020,<sup>4</sup> but it can still be seen that demand is steadily increasing. The Cambodian energy sector has insufficient capacity to meet the current domestic demand for power, let alone the predicted increase, and only 26% of the country is currently connected to grid-quality electricity.<sup>5</sup> These electrification levels are amongst the lowest in Southeast Asia, and in rural areas less than 13% of households are connected.<sup>6</sup> Those who do have access to grid-quality power connections have to pay prices that are much higher than in neighbouring countries, with prices ranging from US\$0.15 per kWh in cities up to US\$1.00 in some parts of the countryside.<sup>7</sup> In addition, power supplies can be unreliable and many businesses, factories and offices have to invest in their own private generators in order to keep functioning during the frequent power cuts. This expensive and unreliable energy supply is often highlighted as a major disincentive to potential investors.

In 2010 more than 90% of Cambodia's total domestic capacity was generated by power plants using imported diesel fuel. The high cost of diesel and the shortfall in supply has led the Cambodian Government to increase its electricity imports from Thailand, Vietnam and Laos, in order to increase reliability and bring down costs. Imports accounted for more than 40% of the

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<sup>3</sup> MIME demand forecast, as reported by Economic Consulting Associates, *The Potential of Regional Power Sharing Integration: Greater Mekong Subregion Transmission and Trading Case Study*, January 2010 (p87).

<sup>4</sup> Asian Development Bank, *RETA 6440: Facilitating Regional Power Trading and Environmentally Sustainable Development of Electricity Infrastructure in the Greater Mekong Subregion*, Final report - Component 1, Module 1: Update of the GMS Regional Master Plan, executive summary, 15 October 2010 (p25).

<sup>5</sup> World Bank, *Cambodia: Villagers Enjoy Cheaper, Reliable Electricity*, 25 February 2011. <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/CAMBODIAEXTN/0,,contentMDK:22842900~menuPK:293861~pagePK:2865066~piPK:2865079~theSitePK:293856,00.html> (accessed November 2011).

<sup>6</sup> Presentation by Victor Jona, General Department of Energy of the Ministry of Industry, Mines and Energy, *Cambodia Energy Status and its Development*, 16 March 2011. <http://www.cdri.org.kh/oc2011/11energy.pdf> (accessed November 2011).

<sup>7</sup> World Bank, *Cambodia: Villagers Enjoy Cheaper, Reliable Electricity*.

Country's total energy supply in 2010.<sup>8</sup> In working to reduce this reliance on imports and expensive fuel, the Cambodian Government has made the development of the energy sector a key priority. Since 2003 Cambodia's development strategy has been guided by the "Rectangular Strategy for Growth, Employment, Equity and Efficiency", which was updated by the 2009 National Strategic Development Plan (NSDP) for 2009-2013. In order to achieve the aims of increasing supply and reducing costs, the Government is promoting private sector involvement in electricity production, distribution and transmission. The NSDP sets MIME the task of encouraging private sector investment and promoting exploration of new energy sources such as hydropower.<sup>9</sup> The Cambodian Government has set the target of electrifying 100% of villages by 2020, and providing grid-quality electricity connection to 70% of households by 2030.<sup>10</sup>

## **Development of Cambodian hydropower**

The development of Cambodia's hydropower sector figures heavily in government plans to increase electrification. A National Sector Review for Hydropower was prepared in 2003 by MIME and the Cambodian National Mekong Committee (NMC). This recognized 60 possible sites for hydropower development, of which 13 were identified as priority projects. The same report estimated the country's total hydropower potential at 10,000 MW, of which 50% is located on the mainstream Mekong, 40% on its tributaries and 10% in the southwest outside the Mekong basin (where the Kamchay dam is located).<sup>11</sup> Until recently Cambodia's hydropower potential has remained relatively untapped, aside from the small-scale dams at O Chum II (1 MW) in Ratanakiri and the Kirirom I (12 MW) in Kampong Speu. However, this changed when Cambodia's first large-scale hydropower dam at Kamchay went online in December 2011. There are also a further four projects under construction in the southwest of Cambodia: the Kirirom III, Lower Russei Chhrum, Stung Tatay, and Stung Atay. All four projects are being developed by Chinese companies, and along with the Kamchay dam they have an estimated combined cost of over US\$1.6 billion and are set to generate over 900 MW of power. In addition to the projects currently under construction, the controversial Lower Sesan 2 dam was approved in early 2011 and will be constructed by a Vietnamese state-owned power company. There are also at least 12 other large-scale hydropower projects across the country currently subject to feasibility studies.

As already mentioned above, the lack of access to reliable and affordable power is seen as a considerable disincentive to foreign investors, which, in an attempt to move away from reliance on foreign aid, the Cambodian Government is working to attract. In October 2011, during a conference held by the International Monetary Fund (IMF) and the Japan International Cooperation Agency (JICA), experts stated that Cambodia needs to invest US\$13 billion in infrastructure by 2020 in order to continue to attract foreign investment – this includes investment in power generation and transmission facilities.<sup>12</sup> Additionally, Cambodia seeks to generate power not only to meet domestic demand, but also has plans to export power to its energy-hungry neighbours, Thailand and Vietnam. In a 2009 presentation by the Deputy Secretary

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<sup>8</sup> Presentation by Victor Jona, 16 March 2011.

<sup>9</sup> Royal Government of Cambodia, National Strategic Development Plan Update 2009-2013.

<sup>10</sup> The Cambodian Government's Rural Electrification Fund website, <http://www.ref.gov.kh/eng/index.php?fn=home.htm> (accessed November 2011).

<sup>11</sup> Cambodia National Mekong Committee (prepared by MIME), *National Sector Review 2003: Hydropower*, June 2003 (p5-7).

<sup>12</sup> Phnom Penh Post, *A threat to Kingdom's FDI*, 14 October 2011.

General of the State National Economic Council it was stated that Cambodia aims to have access to electricity supplies of 6,000 MW by the year 2020 – 68% of which will be generated by hydropower, up from only 3% in 2009.<sup>13</sup> As Cambodia lacks the technical and financial capacity to develop and run such large and complex projects, both private and state-owned foreign companies are moving into this emerging sector and developing hydropower projects under Build-Operate-Transfer (BOT) agreements often in excess of 25 years in length.

### **Chinese investment in the Cambodian hydropower sector**

In recent years China has become a key partner in Cambodia's development, committing increasing amounts of development assistance and also providing backing for Chinese state-owned firms and business ventures. The Chinese Government's approach and its policy of non-interference in the domestic affairs of recipient countries is greatly appreciated by the Cambodian Government, which has become increasingly frustrated with the conditions that Western donors attach to their lending and aid. The Cambodian Prime Minister rarely misses an opportunity to thank his Chinese counterparts and praise the "unconditional" support that China provides – whilst often chiding Western donors for interfering and attaching problematic stipulations to theirs. Much of the financing China has committed to Cambodia in recent years has been for one-off large-scale projects, such as hydropower dams, bridge construction and major road improvements.

China has a long history of developing large-scale hydropower projects both domestically and around the world, and in addition to domestic dams, as of 2010 China was involved in developing hydropower projects in at least 49 other countries.<sup>14</sup> China is the only country yet to develop any large-scale hydropower dams in Cambodia, and as mentioned above, Chinese companies are currently working on the construction of four other large hydropower dams in the southwest of Cambodia. Additionally, in 2002 a Chinese company was responsible for the rehabilitation of the smaller Kirirom I dam in Kampong Speu. The hydropower projects currently under construction or operation by Chinese companies are as follows:

- Kirirom III (18 MW): Located on a tributary of the Prek Kampong Som in Koh Kong province. This project is under construction by *State Grid Xin Yuan* and will be run under a 30 year BOT agreement.<sup>15</sup> The Chinese company *Hydrochina Zhongnan Engineering* has been contracted to conduct the survey, design and supervision of the project.<sup>16</sup> The project is reported to be receiving finance from the *China Exim Bank*, and it is anticipated that construction will be completed in early 2012.
- Lower Russei Chhrum (338 MW): Located in Mondul Seima district of Koh Kong province, this project will be developed at a predicted cost of around US\$500 million (some reports

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<sup>13</sup> Presentation by Phallan Pann, Deputy Secretary General, Supreme National Economic Council, *Energy Sector in Cambodia*, September 2009. [http://cambodia.usembassy.gov/media2/pdf/energy\\_sector\\_in\\_cambodia.pdf](http://cambodia.usembassy.gov/media2/pdf/energy_sector_in_cambodia.pdf) (accessed November 2011).

<sup>14</sup> Bosshard, P., *China's dam builders clean up overseas*. Asia Times Online, 12 May 2010.

<sup>15</sup> China Council for the Promotion of International Trade, *China to build hydroelectric station in China*, 14 February 2008. [http://ccpitgx.org/en/news\\_show.asp?id=2559&CatalD=79](http://ccpitgx.org/en/news_show.asp?id=2559&CatalD=79) (accessed November 2011).

<sup>16</sup> Hydrochina Zhongnan Engineering Corporation website, *Kirirom III HPP in Cambodia*, 24 March 2010. <http://en.msdi.cn/showArticle.aspx?id=138> (accessed November 2011).

state up to US\$550 million) by a subsidiary of the Chinese state-owned *China Huadian Corporation*.<sup>17</sup> This is the largest hydropower project currently under construction in Cambodia. A portion of the project financing is provided by *China Exim Bank*.<sup>18</sup> *Huadian* has subcontracted a number of companies, including *Sinhoydro*<sup>19</sup> and *China Gezhouba Group Corporation*,<sup>20</sup> to carry out construction and engineering works.

- **Stung Tatay (246 MW):** This US\$540 million project is being developed by state-owned *China National Heavy Machinery (CNHM)* under a 42 year BOT agreement and is predicted to go online by 2015.<sup>21</sup> This project also receives financing from *China Exim Bank*.<sup>22</sup> *CNHM* has contracted the Chinese construction company *China Gezhouba Group Corporation* to carry out the bulk of the construction work.<sup>23</sup>
- **Stung Atay (120 MW):** Located on the Atay River inside the Central Cardamom Protected Forest area in Pursat province. The project is being developed under a 34 year BOT agreement at a reported cost of US\$255 million.<sup>24</sup> The project is being developed by a joint-venture of three companies, including the Chinese state-owned *Datang Corporation*.<sup>25</sup>
- The smaller 12 MW Kirirom I dam was re-commissioned in 2002 by *China Electric Power Technology Import & Export Corporation (CETIC)*, a subsidiary of the *State Grid Corporation of China (SGC)*.<sup>26</sup> *CETIC* was originally responsible for running the project under a 30 year BOT agreement, although the project was later taken over by another SGC subsidiary called *State Grid Xin Yuan International Investment Co. Ltd.*<sup>27</sup>

<sup>17</sup> Xinhua, *China Huadian HK to build hydropower station in Cambodia*, 1 April 2010; Global Times, *Chinese funded dams going up*, 2 April 2011.

<sup>18</sup> Herbert Smith website, *Herbert Smith's Singapore energy team advises China Eximbank on US\$412m project financing of a greenfield hydropower plant in Cambodia*, 13 July 2010. <http://www.herbertsmith.com/News/news130710.htm> (accessed November 2011).

<sup>19</sup> Sinohydro Bureau 8 website, *Cambodia Russei hydropower Engineering project*, 17 January 2011. <http://www.baju.com.cn/Web/Production/ProductionShow.asp?ID=211> (accessed November 2011).

<sup>20</sup> Outward Investment and Economic Cooperation website, *Gezhouba Group tenders successful bid to construct Cambodia Lower Russei hydroelectric dam*, 12 November 2010. [http://fec.mofcom.gov.cn/article/xwdt/gn/201011/977035\\_1.html](http://fec.mofcom.gov.cn/article/xwdt/gn/201011/977035_1.html) (accessed November 2011).

<sup>21</sup> Xinhua, *Chinese companies to build hydropower plants for Cambodia*, 21 June 2008. See also: Invest in Cambodia website, <http://www.investincambodia.com/power.htm> (accessed November 2011).

<sup>22</sup> China National Heavy Machinery Corporation website, *Mr. Li Ruogu, President of China EXIM Bank, had inspection and after-loan investigation to the site of Stung Tatay Hydroelectric Project in Cambodia*, 16 December 2010. <http://www.chmc2003.com:8640/news.do?cmd=show&id=1093> (accessed November 2011).

<sup>23</sup> China Gezhouba Group Corporation website, *CGGC Won the Bidding for Tatay River Hydropower Station in Cambodia and Signed a Contract Worth RMB1.8 Billion*, 27 February 2010. <http://www.gzbgj.com/english/article.asp?id=909> (accessed November 2011).

<sup>24</sup> Invest in Cambodia website, <http://www.investincambodia.com/power.htm> (accessed November 2011).

<sup>25</sup> China Datang Overseas Investment Co. Ltd. website, *CDTO at a glance*, <http://www.china-cdto.com/hwtzweb/indexAction.ndo?action=showPage&id=42E10027-2F75-3109-E780-19D94AAF7CD5&category=en> (accessed November 2011).

<sup>26</sup> Middleton, C., *Cambodia's Hydropower Development and China's Involvement*. International Rivers & Rivers Coalition in Cambodia, January 2008 (p32).

<sup>27</sup> Li Qiyuan, *Xinyuan's rise: The re-emergence of the power monopoly?* Caijing Magazine, 22 August 2005.



Chinese companies are also connected to a number of other dams across the country. These include the Lower Srepok 3 (300 MW) and Lower Srepok 4 (220 MW), which are located in the northeast province of Monduliri and both subject to a memorandum of understanding (MOU) for feasibility study by a subsidiary of the state-owned company *Huadian*. Although both projects are still at the study stage they have already begun to raise concerns as they stand to disrupt fisheries and flood large areas within the Lumphat Wildlife Sanctuary and the Monduliri Protected Forest.<sup>28</sup> According to presentations conducted by MIME in recent years, Chinese developers are also linked to the Stung Pursat I (75 MW) and Stung Pursat II (17 MW) projects in the west of Cambodia.<sup>29</sup> However, it is not clear which companies are connected to these projects, and at the time of writing they remain unapproved.

Until recently, a subsidiary of the company *China Southern Power Grid (CSG)* was also considering the controversial mainstream Mekong dam at Sambor in Kratie province. *CSG* originally signed an MOU for studying project feasibility back in 2006. A number of designs have been proposed for this dam, the largest of which would have an installed capacity of 3,300 MW and flood upwards of 800 km<sup>2</sup>, resulting in the resettlement of over 5,000 people.<sup>30</sup> Proposals for dams on the mainstream Mekong have provoked intense debate over recent years, which may well have contributed to the company's decision in September 2011 to announce that it was pulling out of all of its projects in Cambodia.<sup>31</sup> However, another MOU was signed with a different Chinese company in 2010 for study of the same project. The company *China Guodian Corporation* has also conducted studies on two designs for hydropower projects in the Sambor area, one proposed project with an installed capacity of 2,600 MW and one at 460 MW. It appears that this project is still under consideration by *Guodian*, though there is currently no information available as to whether the project will move forward or not.<sup>32</sup>

Until recently, *CSG* was also studying the feasibility of the Stung Cheng Areng dam project in the southwest of Cambodia. This case has raised concerns due to its predicted displacement of local indigenous communities, impacts on downstream fisheries and rice cultivation, and impacts on wildlife, including the endangered Siamese Crocodile.<sup>33</sup> The project was not yet approved at the time that *CSG* announced it was pulling out of its Cambodia projects, and it is not clear at present if an alternative developer will take up this project.

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<sup>28</sup> Grimsditch, M. *Hydropower Development in the 3S Area of Cambodia*. International Rivers, forthcoming 2012.

<sup>29</sup> See earlier referenced presentations by Phallan Pann (September 2009) and Victor Jona (March 2011).

<sup>30</sup> Middleton, C., 2008 (p39-40).

<sup>31</sup> South China Morning Post, *Controversial Chinese projects in Cambodia bow to public pressure*, 3 September 2011.

<sup>32</sup> China Guodian Corporation website, *Guodian and Cambodia sign Memorandum of Understanding for Power Project*, 9 November 2010. [http://www.cgdc.com.cn/c/journal/view\\_article\\_content?groupId=10113&articleId=1010223&version=1.0](http://www.cgdc.com.cn/c/journal/view_article_content?groupId=10113&articleId=1010223&version=1.0) (accessed November 2011). See also: International Rivers website, *China Guodian Corporation*. <http://www.internationalrivers.org/en/china/chinas-global-role/chinese-dam-builders/china-guodian-corporation> (accessed November 2011).

<sup>33</sup> Middleton, C., 2008 (p38).

## Background of the Kamchay Hydropower Project

The Kamchay hydropower project is located in Kampot, which is a coastal province in the south of Cambodia. The project consists of two dams: the main dam and a smaller re-regulator dam located downstream, which have a combined capacity of 194.1 MW. The main dam, which stands at over 100 metres in height, was commissioned in December 2011. The total cost of the project is US\$280 million.<sup>34</sup> The smaller dam has been producing electricity since late 2009 when it was officially opened by the Cambodian Prime Minister and Chinese Ambassador to Cambodia.<sup>35</sup>

The project is located on the Kamchay River, around 15 kilometres upstream of Kampot's provincial town. From its source in the Bokor National Park, the river flows through Tuek Chhou district, on to Kampot town and into the Gulf of Thailand. The project is located within the Bokor National Park, which was established by Royal Decree in 1993.

For the most part, livelihoods in the affected area are based on agriculture, with the majority of farmers cultivating durian fruit or rice. Many people with no land or trees work as labourers on the chamkar (orchards) of “neak mian”, or rich folk, from the town. Until construction of the dam began to impact the quality of the river, several hundred people also worked at the tourist resort of Tuek Chhou, which is located a short distance downstream from the regulator dam. Many of the area's poorest families depend on the collection of non-timber forest products (NTFPs) for their livelihoods, and collect rattan or bamboo from the local forests. According to interviews conducted for the project's environmental impact assessment (EIA), of those living within the project area, 55% were farmers or labourers, 6% civil servants, 18% vendors, and 21% NTFP collectors.

### History of the Kamchay dam

The Kamchay hydropower dam has a long history and over the years has been considered by a number of developers and financiers. Since the 1960s there has been interest in developing a hydropower plant at the site, but these plans were shelved after civil war broke out and Cambodia plunged into decades of turmoil. In the 1990s, two Canadian companies conducted feasibility studies with the support of the Canadian International Development Agency (CIDA).<sup>36</sup> Subsequently, CIDA came under pressure from local and international non-governmental organizations (NGOs). The groups who pressed CIDA about their involvement were concerned mainly about the fact that the project was to be located within the boundaries of Bokor National Park and posed a threat to the ecology of this sensitive area. In a letter to the Canadian Ambassador to Cambodia, concerned groups also criticized the lack of adequate public consultation. CIDA eventually pulled its funding from the project, and although the full reasons for this decision are not publicly known, the NGO campaign no doubt played a part. After the Canadians decided to step back, little information on the future of the project was available until 2004 when international bidding was re-opened.

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<sup>34</sup> SAWAC, *Revised Environmental Impact Assessment: Kamchay Hydroelectric Project*, September 2011 (unofficial translation of executive summary).

<sup>35</sup> Phnom Penh Post, *PM opens Kamchay dam*, 8 December 2009.

<sup>36</sup> Phnom Penh Post, *China revives dream of Kampot mega-dam*, 12 November 2005.

The international bidding process for the project took place between June 2004 and January 2005 and involved companies from Cambodia, Japan, South Korea, and China. In 2005 it was announced that the Chinese company *Sinohydro Corporation* had won the bidding process, and in July 2005 the company and MIME signed an agreement witnessed by Chinese Premier Wen Jiabao and Cambodia's Prime Minister Hun Sen. A 44 year Build-Operate-Transfer agreement was signed in February 2006, and in June of the same year Cambodia's National Assembly voted to provide a guarantee to *Sinohydro* stating that the Cambodian Government would provide financial compensation to the company if the project runs into difficulties or if the project under-performs. This caused some concern amongst lawmakers, and a number of opposition party lawmakers spoke out that they were being asked to vote on these guarantees without ever having seen the terms of the contract offered to *Sinohydro*. The length of the BOT also raised eyebrows, as at the time the agreement was signed, periods of 25 years were the norm.<sup>37</sup> In 2006, Chinese Premier Wen Jiabao joined the project's ground-breaking ceremony, with construction beginning in 2007 and the dam officially opened in December 2011. Financing for the project was provided by *China Exim*.

As discussed earlier, Cambodian capacity to generate power is currently far below domestic demand, which leaves the country heavily dependent on imports and expensive diesel fuel generation. The high cost of electricity is a huge burden to the majority of the Cambodian population, as well as businesses and prospective investors. The justification for the dam as articulated by the Cambodian Government is that it will go some way to remedying this situation by improving access to affordable and reliable power, which will in turn reduce electricity prices and promote investment. It has also been reported that the increased access to electricity will help the government save up to US\$20 million that it currently provides in subsidies for diesel purchases.<sup>38</sup> It remains to be seen exactly what effect the dam will have on local electricity prices, however, state power company *Électricité du Cambodge (EdC)* was quoted in a 2010 newspaper article as saying that the dam could cut Phnom Penh's electricity prices from \$0.17 p/kWh to up to \$0.10 p/kWh. In a local media report on the official opening ceremony of the dam in 2011, the Prime Minister reiterated that the dam would reduce energy costs in the capital and also generate power for the provinces of Kampot, Kep, Takeo and Kampong Speu, selling there for an average of US\$0.24 p/kWh, which is a reduction of US\$0.04 on existing prices.<sup>39</sup> When interviewed by the author in September, local communities in Kampot were unaware about whether or not the cost of electricity would go down in their area, as were local officials who were interviewed. During an interview at the General Affairs Department of *Sinohydro*, a company representative declined to answer questions on power costs and suggested that they be referred to the Cambodian State power company *EdC*.

A number of residents interviewed in Kampot explained that although they were already connected to the local electricity grid, due to the current high price of electricity they only use simple appliances such as fans, televisions and occasionally karaoke machines and speakers for parties. One durian farmer showed us that she owned a new fridge, but had never used it due to

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<sup>37</sup> Summary of approval process taken from: Middleton, C. (2008).

<sup>38</sup> Phnom Penh Post, *PM opens Kamchay dam*, 8 December 2009.

<sup>39</sup> Phnom Penh Post, *PM opens Kampot hydrodam*, 8 December 2011.



the prohibitive cost of running it. These households expressed hope that the dam would bring down electricity costs once operational, but they had no idea if this would be the case or not. One woman interviewee stated that if the cost of power does go down people would be able to do more roadside business and make extra income for their families. The poorer villagers that were interviewed during the field trip to Kamchay did not know if the cost of power would go down, and many said it was irrelevant as in any case they could not afford the expensive cost of connection. In a village just outside Kampot town, one interviewee pointed to the existing power lines running past her house, but as she could not afford to pay the connection fee her family had no choice but to use an old car battery for daily power needs.

### **The project developer and financier**

*Sinohydro Corporation* (中国水电) is a Chinese state-owned hydropower engineering and construction company with more than 60 years of experience in developing hydropower projects across the world. It is China's largest hydropower company and has a 70% market share of the Chinese mainland hydropower sector, which includes construction of the Three Gorges Dam and work on the massive South-North Water Transfer Project. In a 2009 interview, the company's chairman stated that *Sinohydro* had 171 projects completed or under construction in 42 countries around the world with a total value of over US\$11 billion.<sup>40</sup> According to a China Daily article, by September 2011 this was up to 261 projects in 55 countries.<sup>41</sup> *Sinohydro* has contracted the development of the project to two of its subsidiary companies. The subsidiary responsible for the construction phase of the Kamchay project is *Sinohydro Bureau 8 Co. Ltd*,<sup>42</sup> and at the end of the construction phase, *Bureau 8* will hand over to *Sinohydro Bureau 10 Co. Ltd*. In September 2011, *Sinohydro Group Ltd* went public and earned US\$2.12 billion in an initial public offering (IPO) on the Shanghai Stock Exchange. According to a representative of the company's Cambodian subsidiary, these funds will in part be used to help fund its Cambodia projects.<sup>43</sup>

The financier of the Kamchay project is the *Export-Import Bank of China* (中国进出口银行), or *China Exim*. *China Exim* is one of three "policy banks" established to finance and promote the export of Chinese products and services. One element of the policy banks' mandates is providing finance for enterprises pursuing China's "Going-Out Strategy" (走出去战略) which since the late 90's has encouraged Chinese enterprises to invest overseas. Often these loans come in the form of "full-service projects" or "complete projects", in which "the project implementer is a Chinese firm and project loans are transferred directly from the Export and Import Bank of China ... to that firm rather than to the recipient nation, and equipment required is imported from China."<sup>44</sup> Such loans often support large scale infrastructure projects. In addition to its commercial loans, credits and guarantees, as part of China's overseas development assistance, *China-Exim* grants

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<sup>40</sup> China Daily, *Sinohydro: top hydropower engineering firm*, 20 October 2009.

<sup>41</sup> China Daily, *Sinohydro to raise \$2.7b in share sale*, 20 September 2011.

<sup>42</sup> Sinohydro Bureau 8 website, <http://www.bajuintl.com/English/Web/PicView.aspx?BMID=1006&SMID=10061&NewsID=1429> (accessed November 2011).

<sup>43</sup> Phnom Penh Post, *China IPO to benefit Kingdom*, 30 September 2011.

<sup>44</sup> Yi Yimin, *China probes its Africa model*, August 18, 2011. Available on China Dialogue at: [http://www.chinadialogue.net/article/show/single/en/4470-China-probes-its-Africa-model-1-?utm\\_source=Chinadialogue+Update&utm\\_campaign=6d190dd738-newsletter+03+May+2011&utm\\_medium=email](http://www.chinadialogue.net/article/show/single/en/4470-China-probes-its-Africa-model-1-?utm_source=Chinadialogue+Update&utm_campaign=6d190dd738-newsletter+03+May+2011&utm_medium=email) (accessed November 2011).

concessional loans to developing countries for mid- to long-term periods with low rates of interest. These loans are generally invested in projects that “offer financial and social benefits for the recipient countries or enable them to buy machine tools, equipment, technical service, and other products from China.”<sup>45</sup> It has been reported in a number of media articles that the Kamchay project is funded by such a loan, and that it was agreed as part of a larger US\$600 million Chinese aid package committed in 2006.<sup>46</sup> However, although full details of the loan are not publicly available, it appears that the Kamchay loan is not concessional, but is a commercial loan to *Sinohydro*. The loan is therefore not likely to be classed as “aid”, and it should be noted that the project is not listed in the Cambodian Government’s online database of official development assistance.<sup>47</sup> This is returned to later in the paper.

In addition to the Kamchay dam, *China Exim* is financing a number of major infrastructure works in Cambodia, including road and bridge construction, and several other large-scale hydropower projects. The role of *China-Exim* and the safeguards that it applies to its lending are examined in the second half of this paper, as are the internal policies of *Sinohydro Corporation*.

## **The environmental and social impacts of the Kamchay Hydropower Project**

The principle benefits of the Kamchay dam are the generation of reliable and cheaper electricity, the total annual production of which is estimated at an annual average of 498 GWh. The project’s draft EIA states that the power generated will supply both industry and the general public and contribute to economic development and poverty reduction at the site and throughout the country. The draft EIA lists a number of additional benefits and states that people will also have use of the associated infrastructure, and in particular, road improvements and bridge construction will benefit both local people and tourists. Additionally the dam will provide water for irrigation, mitigate downstream flooding and provide habitats for fish breeding and sites for ecotourism. However, a number of negative impacts have also emerged over the period of the construction. Due in part to the shortcomings of the public consultation process, many people remain unaware or unconvinced that programs to mitigate impacts caused during the operational stage will be implemented in the future. According to the executive summary of the draft EIA report, a total of 154 families, or 769 people, were affected by the project. However, it is not clear how this figure was calculated, and who is classed as a project affected person. Crucially, it is not clear if the figure includes the impacted NTFP collectors. As discussed below, according to one local official, 190 families in the Makbrang Commune have suffered reduced access to forests they depend on for NTFP collection. This figure is significantly higher than the total number of affected families identified by the EIA report.

The remainder of this section deals with the impacts observed during the construction phase of the project.

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<sup>45</sup> Global Environmental Institute, *Environmental Policies on China’s Overseas Investment*, 2011 (p54).

<sup>46</sup> See for example: BBC Online, *China gives Cambodia \$600m in aid*, 8 April 2006.

<sup>47</sup> Cambodia Rehabilitation and Development Board (Council for the Development of Cambodia), *The Cambodia ODA Database*. [http://cdc.khmer.biz/Reports/reports\\_by\\_updated.asp?status=0](http://cdc.khmer.biz/Reports/reports_by_updated.asp?status=0) (accessed November 2011).

## Impacts on the Bokor National Park

Since the 1990s, when it became clear that the Cambodian Government wished to revive the Kamchay project, many observers have been concerned about the project's location inside the Preah Monivong National Park – more commonly known as Bokor National Park. The park was established in 1993 by Royal Decree, which set the boundaries of the park and designated 140,000 hectares (1,400km<sup>2</sup>) as protected area.<sup>48</sup> The park is mainly covered by tropical evergreen forest but also has diverse habitats such as the mangroves where the park and river estuaries meet in the south. Large mammals including elephants, tigers and sun-bears are known to live inside the park, and hundreds of bird species are present, including a number of globally threatened species. In a 2005 wildlife study of the park, four endangered species were encountered, eight vulnerable and three threatened.<sup>49</sup> The EIA identifies 37 mammal species, 68 bird species, 23 reptile species and 192 fish species within the project area.

The total project area is 2,291 hectares, which includes access roads, a rock quarry, transmission grid infrastructure, and two reservoirs. The combined area flooded by the two reservoirs is approximately 2,015 hectares (just over 20km<sup>2</sup>). The majority of this area was forested land located within the national park, and the EIA report states that the project impacts on 1,962 hectares of evergreen forest and 416 hectares of mixed forest and bamboo. It is recognized that this is likely to have an impact on wildlife within the project area. However, in the eyes of the Cambodian Government and the project developer, the project benefits outweigh the impacts on the protected area, as the affected area constitutes a small percentage (less than 2%) of the 140,000 hectare national park. The location of the dam and reservoir are illustrated in this map, which is taken from the revised EIA report. The dark coloured area on the left is the Bokor National park.



For a number of years the protected area has faced the constant threat of illegal poaching and logging, which the Forestry Administration has been working to prevent. The EIA for the Kamchay dam identified that the project would impact the park and that deforestation would be necessary

<sup>48</sup> Royal Decree on the Protection of Natural Areas 1993, Article 2.1.

<sup>49</sup> Asean Centre for Biodiversity, *Asean Heritage Parks: Preah Monivong National Park*, [http://bim.aseanbiodiversity.org/biss/index.php?option=com\\_content&view=article&id=18:preah-monivong-national-park&catid=3:asean-heritage-parks-programme&Itemid=32](http://bim.aseanbiodiversity.org/biss/index.php?option=com_content&view=article&id=18:preah-monivong-national-park&catid=3:asean-heritage-parks-programme&Itemid=32) (accessed November 2011).

in the area of the reservoir and in order to build access roads, the dam wall and associated facilities. During this author's discussions with communities who collect non-timber forest products in the area, many people expressed concern about the scale of the deforestation. One man who used to work as a community forest ranger stated that logging has taken place beyond the vicinity of the project facilities and reservoir area, and he estimated the deforestation at around 3,000 hectares. These figures are difficult to verify but similar concerns were raised by many community members who know this area of forest well. This is not to say that the developer is responsible for any illegal logging, and it is often observed in Cambodia that when large scale development projects commence in or adjacent to forested areas, opportunistic individuals or companies may also move in and cut trees in the area.

According to the project EIA, Sinohydro has reserved US\$17.5 million for environmental protection, of which \$12 million was for use during the construction phase and the remaining \$5.5 million for the 40 year period of operation. At the time of writing the full EIA was not yet approved and no English version of the draft report was available, therefore no analysis of the breakdown of this fund was possible.

### **Impacts on fisheries**

During the field trip to the Kamchay site no fisher people were interviewed, and there has been little discussion of the impacts on fisheries in the existing literature on the Kamchay case. This is presumably because fishing is not a main source of livelihood for the majority of those living in the area. Nonetheless, the project is expected to impact on fisheries, as identified in the project's EIA report. According to the EIA executive summary, the migration of 15 fish species has been severely impacted and the dam creates a barrier to fish spawning both up and downstream of the site. The report estimates that fish catches on the Prek Kamchay and the Stung Keo dropped from 25,433 kg in 2006 to 15,499 kg in 2010. The dam may also impact on some endangered fish species, including the Trey Khmao and Trey Khya. The company proposes to mitigate impacts on fisheries by constructing a third dam downstream to create spawning areas and plans to release indigenous fish species into the river over a 10 year period at a cost of US\$75,000.

### **Water quality**

The Kamchay River provides drinking water to Kampot Town and the surrounding areas, and prior to the start of the project the water quality was fairly high, requiring minimal treatment before being distributed.<sup>50</sup> After construction began, residents in Kampot town began to notice sediment appear in their drinking water. Poorer residents living outside the town noticed more serious water quality issues as they do not have water pumped from the town's treatment facility and have to take their water directly from the river for cooking, bathing and drinking. The changes in water quality were felt most acutely at the peak of the construction process – a common problem during the construction stage of all major hydropower projects. Downstream communities also said that the flow was drastically reduced and the river became littered with garbage, as plastic bottles, bags and food containers discarded by workers floated downstream. There were also

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<sup>50</sup> Middleton, C., 2008 (p60).

serious health issues due to the construction site toilets emptying their untreated contents directly into the river. This was particularly disturbing for those working in tourism at the Tuek Chhou site (see below), which is located only a few kilometres downstream of the dam site and is a popular place for swimming for locals and tourists.

Villagers interviewed downstream stated that during the dry season the water quality was especially bad, it became much darker in colour, started to smell bad, and was clearly loaded with cement and other sediment. The water would dry out people's skin and hair if used for bathing and washing, and make the skin and throat dry and extremely itchy. In the rainy season the quality improved, although it was still discoloured. After peak construction ended, the water quality increased drastically, however, the people interviewed still do not like to use the water as they do not trust its quality, and believe it now contains "insects" that can get into the skin. Those who can afford to pay have water delivered from an area of the river that is unaffected, but most of those interviewed were too poor to do this and so have no choice but to continue to use the river water. Many of these families have set up pipes and jars for rainwater collection in order to reduce their reliance on the river. Some durian farmers with trees close to the river and reservoir have also reported that since the construction commenced, some of their durian fruit have started to die on the branches. They attributed this to the reduced water quality and have now started paying extra to have water pumped from more distant sources to irrigate their trees.

The long-term impacts of changes to the river's hydrology remain to be seen, and will likely only become apparent after the dam is commissioned. Two important issues that need to be closely monitored are the effects on sediment flow downstream, which may result in the decreased fertility of agricultural land in the future, and salt water intrusion from the river's estuary. The Kamchay River flows only a short distance before reaching the Gulf of Thailand, and due to salt water intrusion the river is known in the dry season to become quite salty up to the town in Kampot. If flows are drastically reduced by the dam this could potentially increase salt water intrusion into higher reaches of the river, which could impact on agriculture and drinking water supplies. However, if the dam *increases* dry season flow it may actually reduce the level of salt water intrusion.<sup>51</sup>

The author raised some of the above concerns during a meeting with a *Sinohydro* company representative in September, who said that all questions related to environmental and social impacts are covered by the EIA and should therefore be referred to the Ministry of Environment. However, as will be discussed below, the revised draft version of the EIA was only made public in September 2011, and as of that time it was still awaiting final approval.

### **Loss of farmland and fruit trees**

There was no resettlement caused in the immediate vicinity of the dam, although some people did lose agricultural land to flooding, road construction and construction of poles for transmission wires. It is not clear how many people lost land, but the EIA puts the total area at 301 hectares. As the project is located inside a protected area, where residency and occupation is technically

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<sup>51</sup> Middleton, C., 2008 (p63).

illegal under Cambodia's 2001 Land Law,<sup>52</sup> these people were not compensated for loss of land. However, although they were not compensated for the land, they were compensated for loss of crops. During interviews at the project site, various people (including affected people, local NGOs and local authorities) stated that those who were compensated for the loss of trees were generally happy with the amount they received.

One woman who was interviewed at her home in Makbrang Commune lost 35 durian trees because of road expansion for the project. In total she owned 200 trees, so this constituted a large loss of income. After finding out about the project in 2007 she was contacted by a company representative who visited her house and gave her a phone number to arrange a meeting with a "company officer". The officer later came to her land and conducted a Detailed Measurement Survey (DMS) and marked with poles where the new road would impact her land. The durian farmers were later called to a commune meeting where *Sinohydro* disclosed the compensation rate that they were willing to offer, however, the farmers were not happy with the offer and negotiated for higher rates. According to the interviewee, the company and affected people agreed on US\$500 per large tree, \$200 per small tree and \$10 for seedlings, which she believed most people were happy with.<sup>53</sup> She felt that the negotiations were fair and that the officials and company were professional and polite, and that the farmers did not feel intimidated during the negotiation process. By the time the trees were destroyed, compensation had already been paid in advance and the durian had already been harvested. Although it appears that the majority of people were happy with the process and compensation rates, a local rights group was concerned that no independent monitors were allowed to join the negotiations to ensure they were conducted appropriately.

Some people were unhappy that they were not compensated for their land, but as noted above, people occupying land within national parks are regarded as illegal settlers by the government, and under the Land Law can even be subject to criminal penalties. This is especially frustrating for those people who purchased the land with the knowledge of local authorities, who in some cases witnessed and approved the signing of land sale contracts. One person interviewed said that while she was happy with the compensation she received for her trees she was not compensated for her land, which she believed she legally owned. According to a local rights group, a number of people attempted to complain about the lack of compensation for land but were unsuccessful, as government policy is generally quite strict that people will not be compensated for loss of land if they reside on state public property.

An officer from one local organization working in Kampot suggested that while people were happy with the compensation they received for their trees, they are now in a more precarious position as although he believed the compensation was adequate, recipients now have limited access to new land and are spending the compensation on consumable items rather than investing in new land. There have also been anecdotal reports of people illegally clearing forest to create new areas for fruit orchards.

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<sup>52</sup> Land Law 2001, Articles 15 & 259.

<sup>53</sup> Note: the author was not able to obtain official confirmation of the final agreed compensation rates, however, several different interviewees quoted the same figures as discussed here.



## **Explosions at company quarry rain rocks on neighbouring villages**

One dispute that arose during the implementation of the project was between the company and those living close to the company's quarry. (The company was given a quarry license by MIME to explode rocks close to the site for use in the construction of the dam). At one point this problem resulted in around 70 families protesting and blocking a local road after their complaints that flying rocks had damaged their homes were not adequately addressed. According to one news report, during detonations, rock fragments were flying more than 300 metres and damaging land, crops, and homes.<sup>54</sup>

Many of the complaints regarding the quarry were submitted to local human rights NGO Licadho and were resolved thereafter in negotiation with the company and provincial officials. In 2007, over 50 families in Moan Prey, Tuek Chhou district complained to Licadho that over-laden trucks from the quarry were noisy, dusty and would occasionally drop large rocks and debris as they drove past their homes. The company entered discussions with the affected people and agreed to rent their land for the duration of the construction period. In January 2010 almost 40 families in Don Thmor and Prey Thmor villages, also in Tuek Chhou district, complained that company dynamiting at the quarry was raining large rocks on their land. The company came to the same agreement as in the previous case and rented the land from the affected people. In a third case later in 2010, people complained again when company plans to build a new access road to the quarry affected their land. Eventually the company agreed to purchase the affected land.

## **Loss of access to non-timber forest products (NTFPs)**

During the course of the field research it became clear that the people most severely impacted by the project are those people who make a living by collecting and selling non-timber forest products (NTFPs). In the vicinity of the Bokor National Park there are a number of communities who depend on the harvest of these products and have done so for generations. The author travelled to O Touch village on the outskirts of Kampot municipality, where more than 90% of the residents made a living by collecting bamboo from the forest for weaving baskets. Residents here explained how when the men and older boys travel to the forest to collect bamboo, the women stay at home and weave the bamboo into baskets whilst also taking care of the home. While in the forest, collectors also gather seasonal fruits and catch fish for family consumption. Previously they could also make money from collecting samrong (mulva) nuts, but due to logging of the samrong trees people are finding the nuts harder and harder to find. Other communities in the area collect rattan for furniture making, although no rattan collectors were interviewed during the course of this research.

According to a local commune official interviewed for this paper, 190 families across the Mak Prang commune and Kampot municipality have been affected by reduced access to NTFPs. This is a potentially devastating blow for many of these people, as they constitute some of the poorest residents in the area. The earlier referenced report by International Rivers and the Rivers Coalition in Cambodia quotes the Commune Chief of Mak Prang as saying that the poorest 30% of

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<sup>54</sup> Phnom Penh Post, *Villagers blockade Kampot dam quarry site over airborne rocks*, 11 March 2009; see also The Cambodia Daily, *Quarry Explosions Stir Protest Plans in Kampot*, 18 November 2008.

villagers in his commune depend on NTFP collection for their income.<sup>55</sup> The collectors interviewed for this paper stated that they were entirely dependent on collecting NTFPs as they had no rice fields or fruit trees, and the only land that they owned was their place of residence. One interviewee said that she was taught how to weave the bamboo baskets by her mother and her family has made a living this way for four generations. She possessed no other skills that could be utilized to earn income in a different trade, and like many of her neighbours she was illiterate and had no capital to invest in setting up any alternative business. Most people were born in the village and had never left to work elsewhere, apart from during the 1970s when the Khmer Rouge forced people to move and work in agricultural collectives in other parts of the province. Over recent years, as times have become harder for the people of her village, residents have begun to migrate to other provinces in search of work, and at least four young women have left their children in the care of relatives and travelled to Malaysia to work as maids.

It was reported in local media in April 2006 that the Kamchay project received final approval after the company agreed to a number of requests from the Cambodian Government, including making assurances that the project would not block forest access for NTFP collectors.<sup>56</sup> However, after construction commenced in 2007, the project blocked one of the major access roads to the area, drastically reducing the people's access to the bamboo forest. The company hired provincial military to guard the site and man the security check-points, and after the area was closed to non-staff there were a number of incidents where NTFP collectors approaching the check-points had rifles aimed at them by the security forces (although no shots were ever fired). The people responded to the loss of access and perceived intimidation by demonstrating in front of the provincial government offices. The company explained that access had to be restricted as the area was unsafe due to the newly opened stone quarry, and there was also expensive company equipment in the area. A compromise was reached with the protesters whereby all NTFP collectors could register their names with the company, after which security would allow registered collectors to access some bamboo forests within the project area. After this agreement was reached the NTFP collectors said that their relationship with the security improved, and if the quarry was in the process of exploding rocks, security would even radio to the quarry and request that the workers stop blasting until the NTFP collectors were safely past the site.

Although the above episode provides a positive example of successful negotiation between the company and local people, even after regaining access to some forested locations the collectors are still unable to reach the most productive areas of bamboo forest that they accessed prior to construction starting. This is because the reservoir has now completely flooded the access road to those areas and hiring a boat is prohibitively expensive. People can still access some bamboo forests but they must travel further, and the forests that they can reach are much less productive. During focus group discussions the collectors were eager to make clear that they know how to harvest the bamboo in a sustainable way, only taking the mature bamboo, taking only as much as they need, and using every part of the harvested branches. However, due to the reduction in accessible areas and increased competition for the available bamboo, mature trees are becoming harder and harder to find, which threatens to make the collection less sustainable as people cut whatever they can find. Prior to the start of the project in 2006 the collectors interviewed claim

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<sup>55</sup> Middleton, C., 2008 (p62).

<sup>56</sup> Phnom Penh Post, *Kampot dam gets green light*, 9 April 2006.



that they could make 40,000-50,000 riel (US\$10-12.50) every three days when they took their baskets to sell at the market. Since losing access to the best sites, they can only make around 20,000 riel (US\$5.00) every three days – a reduction in income of 50-60%.

None of the NTFP collectors have been compensated by the company or the Cambodian Government as they have not lost any land or trees. Neither have there been any livelihood restoration programs aimed at people who have lost income due to the project. As discussed in more detail below, the collectors were offered work on the project, but many turned this down as they would be required to work longer hours doing hard labour for similar (some even said less) pay to what they were currently earning collecting bamboo. The NTFP collectors' immediate concern is to regain access to the productive bamboo forest, and they have sent letters through the village, commune and district level authorities requesting that the company build a new access road to the old bamboo forest, to which they were still awaiting a response when interviewed. The community has also raised the idea of a special community managed bamboo forest in the area, which is said to be under consideration by the Ministry of Environment, but there is still no information publicly available on any such plans.

### **Impacts on local tourism**

Downstream and in sight of the smaller re-regulator dam is the tourist resort of Tuek Chhou. Tuek Chhou is located at the edge of the national park, and its scenic landscape and series of rapids have been popular with locals and both Cambodian and international tourists for many years. In 2008, International Rivers and the Rivers Coalition in Cambodia estimated that prior to the start of the project around 200 local people worked at Tuek Chhou during peak season, which according to the provincial Department of Tourism generated revenue of around US\$3 million per year.<sup>57</sup> While conducting field research the author visited the area and observed only one family of visitors present at the tourist site, although it should be noted that the field-trip was conducted in September, which is generally the down-season for tourism. However, a local restaurant owner said business has been extremely bad since the dam commenced construction. A local news article from 2008 quoted the provincial Deputy Director of Tourism as saying that only 7,700 tourists visited the area in March that year, down from nearly 60,000 the month before, as the water became contaminated after heavy drilling started at the construction site. Untreated human waste from the workers' toilets was also emptied directly into the river, posing serious health risks downstream.<sup>58</sup>

As the Tuek Chhou resort is very close to the re-regulator dam and only a few kilometres from the main dam, it is unsurprising that business suffered the effects of changes to the water flow and quality. Before construction commenced the river was known to be very clear but at the time of the field trip, although the water was clear of debris, it was an opaque reddish-brown colour. A 2010 article reported that locals working in tourism had seen their income cut by at least half. One restaurant owner blamed the drop in tourists on the lack of water, as the site's main attraction is swimming in the river. One seller stated that her income had dropped from US\$20

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<sup>57</sup> Middleton, C. (2008) (p59).

<sup>58</sup> The Cambodia Daily, *Kampot tourism takes hit amid construction* Monday, 24 March 2008.

per day to just US\$5.<sup>59</sup> The project's EIA report states that tourism has suffered during the construction stage, and the numbers of visitors has dropped from almost 278,000 in 2006, to less than 70,000 in 2010. The estimated revenue raised by tourism at the site in 2006 was more than US\$2,861,000, but this dropped to around US\$761,000 in 2010. The EIA estimates that this has impacted on the livelihoods of 32 families.

No livelihood support has been provided to those dependent on tourism for their income, and it appears that many of the sellers who previously worked at the site now travel to other areas to sell their food, for example, in local markets and other scenic spots. Much of the disturbance to the quality and quantity of water at Tuek Chhou was attributed to the construction activities, and it has been suggested that the situation at Tuek Chhou will improve once the construction stage comes to an end. The EIA even states that the dam will make the surrounding area more attractive to tourists than prior to construction. It remains to be seen what will happen to the resort after the construction stage is complete and operations begin, but there have been suggestions that the area may be developed to maximize the tourist potential of the dam, although there are currently no plans available to the public.

### **Employment on the project**

In 2006 the director from the General Department of Energy at MIME stated that the project would employ a 90% Cambodian workforce.<sup>60</sup> It is not clear exactly how many people have been employed on the project, although the draft EIA stated that the project would employ 1,500 people during the construction phase. According to discussions with a Cambodian security guard working on the site, at peak construction the project employed about 800 people, of which 600 were Cambodian. Others interviewed have suggested the peak work force was closer to 1,000, with around 75% being Cambodian. As construction was winding down in September 2011, one interviewee working on the project estimated the number of workers was somewhere between 200 and 300. The work was often irregular and dependent on the needs of the company, and most of the Cambodian employees were hired for unskilled positions. Pay varied depending on skill level, and according to one worker interviewed during the course of this research, the lowest rate for unskilled workers was 900 riel (US\$0.26) per hour and the working day was 10 hours long. A survey conducted by NGO Forum in 2008 found the general rate to be higher than this, at 1,600 riels per hour, which works out at around \$4.00 for a 10 hour day. Night work received a slightly higher rate.<sup>61</sup> Skilled workers can earn much more, for example, the heavy truck drivers could earn US\$300-400 a month, although the senior positions and the most highly skilled jobs were filled by qualified Chinese staff. After the construction phase is complete, employment will be reduced drastically.

Local people, a company security guard, and local human rights organizations all stated that there have been a number of complaints about Cambodian staff being mistreated by their supervisors, and a several complaints were submitted to the police. There were also claims that there have

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<sup>59</sup> The Cambodia Daily, *New Kampot dam turns waterfall to a trickle*, 15 January 2010.

<sup>60</sup> Phnom Penh Post, *Kampot dam gets green light*, 9 April 2006.

<sup>61</sup> NGO Forum Cambodia, Environmental Forum Members, *Report On the Assessment of Environmental Management Plan of the Kamchay Hydroelectric Project in Kampot*, March 2008 (p10).

been a number of deaths or injuries of Cambodian workers in accidents on the site, although this was impossible to verify with any certainty. One senior Chinese staff member is known to have been killed in a traffic accident on the site. A Cambodian staff member said that a number of workers who suffered serious injuries on the work site never returned to work, and it was generally not known what happened to these people, or if they received any compensation. Again this was not possible to verify during the field trip. There was also an incident reported in the local media in 2009 that after their truck was pulled over by traffic police, a group of Chinese *Sinohydro* workers severely beat 8 traffic police. Arrest warrants were reportedly issued for the arrest of 10 Chinese construction workers, though the story was not subsequently covered in the media.<sup>62</sup> Although many of those interviewed discussed stories they had heard about conflicts between Cambodian and Chinese workers, it was hard to distinguish fact from hearsay. It should also be noted that in an article published in 2011, researchers interviewing a *Sinohydro* representative found their interviewee concerned about incidents of violence caused by some Cambodian workers against Chinese staff.<sup>63</sup> As there is no clear and recorded evidence of conflicts such as those discussed here, it is difficult to assess whether such incidents were widespread or simply isolated incidents.

### **Access to information and public consultation**

At the time the field research for this report was conducted, it was apparent that community awareness of the project was quite low, despite the fact that it was in its fourth year of construction and only two months away from being fully commissioned. This is indicative of the generally poor public consultation process that has been a recurring trend during the process of the dam's construction.

Most community members interviewed found out about the project in 2007 through word of mouth and when they started to see large vehicles and heavy machinery pass their homes in the direction of the site. At this stage, according to residents interviewed in one village close to Kampot town, none of the NTFP collectors had received any documents, and no meetings or consultations had yet been held to inform them about the project and its impacts. It appears that the first affected people to be contacted were the farmers living close to the project site who would lose land and trees. As the start of major construction approached, local people were encouraged to apply for jobs on the project, and after the company started to hire people to work as security and to clear land, information began to spread informally through local communities.

According to NTFP collectors interviewed in O Touch, the first time they were formally told about the project by an official was in late 2007. At the end of a public meeting on malaria awareness held by a local NGO, the village and commune chiefs added a session to discuss the Kamchay project, although this was already some time after the community had become aware of the dam. The community was never involved in any official public consultation workshops and company representatives have never visited the village. The only plan that anyone interviewed had ever seen is posted on a public notice board close to the site, and includes a brief description of the

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<sup>62</sup> Phnom Penh Post, *Workers sought in Kampot attack*, 14 October 2009.

<sup>63</sup> Lyttleton, C. & Nyíri Pál, *Dams, Casinos and Concessions: Chinese Megaprojects in Laos and Cambodia*. Published in: Brunn, Stanley D. (ed.) *Engineering Earth: the Impacts of Mega-engineering Projects*. Vol. 2, p1243-1266, London-New York, 2011.

project alongside a picture of the completed dam and surrounding areas. Most people were not interested in seeing plans or documents though, as they explained that literacy levels in the village are very low, and even if printed materials were provided very few people would have been able to understand them. Many of those interviewed said that they were not interested in the project at first, as it was “none of their business”, and they only became concerned when they lost access to the bamboo forests and realized that they were likely to lose a large percentage of their incomes. This illustrates further why adequate dissemination of information and public consultation needs to be conducted prior to approval of such projects.

A Deputy Commune Council Chief from one of the affected communes explained that prior to the start of construction a public meeting was held at the district level informing the communities about the project. He stated that all NTFP collectors were given a written invitation to the meeting, where they were told that although they would lose access to forest products they would be able to apply for jobs with the company. A representative of *Sinohydro* joined, as did the commune and village chiefs. During an interview with one commune official, he stated that apart from such meetings information was often difficult to obtain from the company and that senior staff were hard to approach. He expressed frustration that if the company has a problem they are very quick to come to commune offices requesting help, however, if the commune has a problem the company is often unresponsive. Even for the commune officials, detailed project information could be hard to obtain, and the official interviewed said that they have never received any technical documents or studies on the project. The Deputy Chief said this was not a concern though, as the documents are too complicated to understand and are dealt with by the provincial Department of Industry, Mines and Energy. He went on to say that “the dam is not important to the commune [officials] because it is company business”, although he was clearly concerned about the welfare of those living in the affected area. The official stated that affected people need more information on the project, a place where they can easily raise their concerns, and a clearer idea of what their options will be when construction is complete and there are no longer many jobs available working on the project. One commune official stated that without livelihood support he feared some affected people would become poorer.

Two local NGOs work in the project area, Adhoc and Licadho, both of whom focus on monitoring human rights violations. They found out about the project in the same way as many of the affected people, through word of mouth, observing a build-up of company equipment and increased traffic at the site, and also through informal discussions with provincial officials. Neither organization was officially informed about the project by the local government and never received any communication from the company. Although the company has no obligation to do so, if adequate environmental and social impact assessments were conducted prior to the start of the project, local civil society groups would have been consulted as key stakeholders. A Licadho staff member stated during an interview that having access to project documents would be very useful to local organizations as it would make it easier to understand the project development process, which would mean the organization could support affected people more effectively. The interviewee also stated that public access to a detailed mitigation plan is also crucial for local organizations and communities to be able to monitor if the company is respecting its obligations, and would in turn “improve transparency and good governance”.



*The dam reservoir, with Bokor National Park in the background*



*A quarry site producing rock for the dam construction*

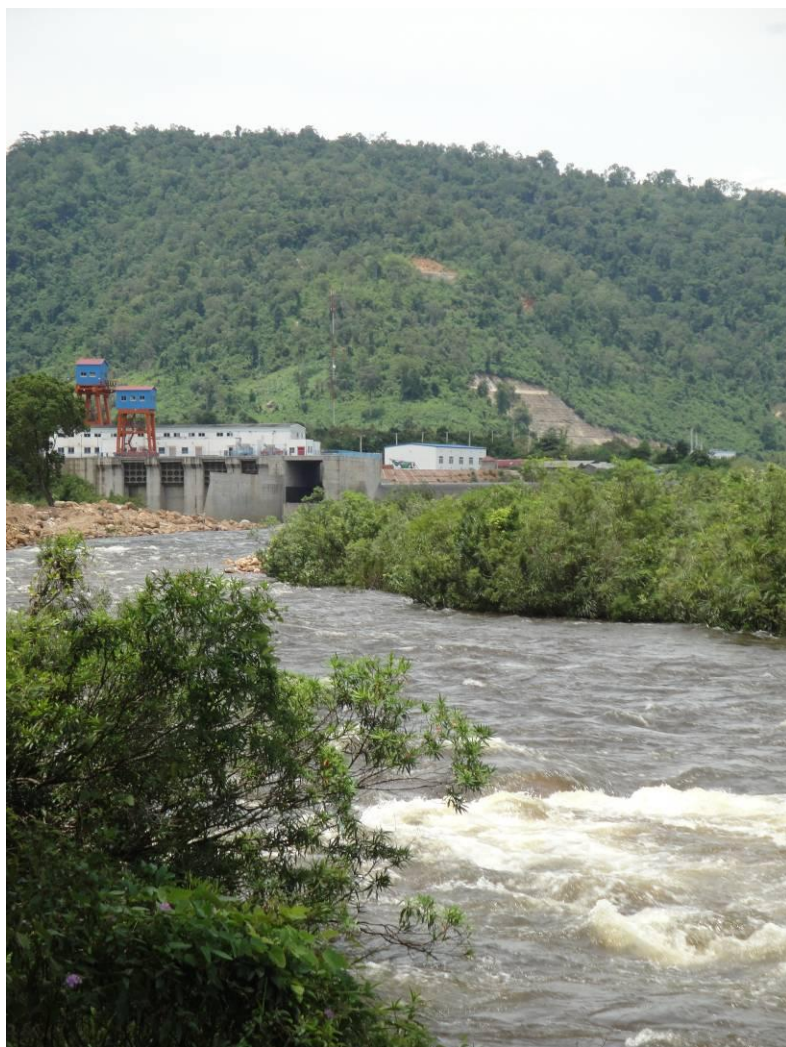
(All photographs by the author)





*Bamboo baskets produced by NTFP collectors living close to Kampot town*

*Re-regulator dam as viewed from the Tuek Chhou tourist resort area*



(All photographs by the author)



*Re-regulator dam*



*The main dam viewed from the upper access road*

(All photographs by the author)





*The main dam viewed from the lower main access road*

(All photographs by the author)



## National environmental and social safeguards

As can be seen above, although most of the people who lost land and fruit trees to the project's development appear to be content with the levels of compensation they received, there are significant unaddressed problems related to the impacts on the livelihoods of those dependant on tourism and NTFP collection. This highlights the considerable gaps in the application and implementation of the safeguards that should apply to such projects. Further gaps in environmental and social safeguards are illustrated below in the description of the EIA process. As the first large-scale hydropower dam to be constructed in Cambodia, the Kamchay dam serves as an important test-case for application of both local safeguards and those of the developer and financier.

Traditionally the approach of Chinese developers and financiers has been to rely mainly on local legislation and regulations to avoid or mitigate the negative environmental impacts of their projects and to ensure respect for the rights of local people. The shortcomings of such an approach become apparent when projects are implemented in countries with weak rule of law and under-developed legal systems and regulatory frameworks. Although there is evidence to suggest that over recent years there has been a realization in certain sectors of the Chinese Government, state owned enterprises and financiers that this approach is not adequate, as illustrated below, China is still far from developing any over-arching safeguards to apply to its development assistance and foreign direct investment.

The following is a summary of the safeguards that apply, or should apply, to the implementation of the Kamchay hydropower dam project.

### **Cambodian legal framework and relevant regulations<sup>64</sup>**

The principal government ministry responsible for the development of the Cambodian hydropower sector is the Ministry of Industry, Mines and Energy (MIME), the other key ministries being the Ministry of Water Resources and Meteorology (MOWRAM) and the Ministry of Environment (MoE). The State power company Électricité du Cambodge (EdC) is responsible for day-to-day management of the electricity sector and the Electricity Authority of Cambodia (EAC) is the country's independent regulator responsible for issuing generation and transmission licenses. All projects with investment of over US\$50 million and all BOT projects must be approved by the Council for the Development of Cambodia (CDC), the highest decision-making body for private and public sector investment in Cambodia.<sup>65</sup> Under the Law on Water Resource Management, all hydropower projects also require a water use license from MOWRAM.<sup>66</sup> The MoE is the body responsible for examining and evaluating EIA reports and also monitoring compliance with

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<sup>64</sup> See Annex for a summary of Cambodian legislation providing key environmental and social safeguards with application to cases such as the Kamchay dam.

<sup>65</sup> Law on Investment in the Kingdom of Cambodia 1994, Article 1; Sub-decree on the Organization and Functioning of the Council for Development of Cambodia (CDC) 1995, Article 9.

<sup>66</sup> Law on Water Resource Management 2007, Article 12.

environmental regulations.<sup>67</sup> Although there is currently no law dealing specifically with hydropower in Cambodia, there are a number of laws with relevance to the development and management of such projects. This includes the laws related to investment, electricity, land, forests, water resources and environmental protection.

Both the Cambodian Constitution and the 2001 Land Law recognize the right to private ownership of land, and stipulate that no one may be deprived of ownership unless it is in the public interest, and only after the advance payment of fair and just compensation.<sup>68</sup> This is often complicated by the fact that in Cambodia only a formal land title confers full and indisputable ownership of land, and many Cambodians still await receipt of such titles. During the years of civil war, all ownership records were destroyed, and in the 1970s private ownership was abolished by the Khmer Rouge. Additionally, many thousands of people were uprooted by the Khmer Rouge regime and forced into agricultural collectives in other parts of the country, while many fled to border areas and neighbouring Thailand as refugees. After the fall of the Khmer Rouge, people returned to their homelands, or settled wherever they could find productive land.

In order to improve tenure security and bring some order to the chaotic land tenure situation left after decades of conflict, a comprehensive and centralized land registration system was designed and implemented from 2002 onwards. Up to February 2011 the systematic titling system had registered 2 million land plots and issued 1.7 million land titles.<sup>69</sup> However, due to various factors, not least the enormity of titling an entire country, many still wait for their land to be adjudicated and for land titles to be issued. This leaves people exposed to land disputes and often in a weak position when their land is impacted by development projects or is sought after by a more powerful actor, even if they have already resided on or used their land for many years. However, those without full land titles are not without legal protection. Detailed provisions exist in the 2001 Land Law that protect the rights of occupants who may not yet have a land title, but whose occupation or use of their land commenced prior to the passing of the Land Law and meets a number of requirements set out in the Land Law. Those who meet these requirements should be regarded as legal “possessors”. Under the Land Law possessors have rights similar to those of owners until such time as they are able to obtain title.<sup>70</sup> The problem is that possession rights are not consistently recognized by local or national authorities, despite being recognized by the Land Law.

The lack of clarity related to ownership rights in Cambodia highlights a key deficiency in the practice of outside developers and financiers relying solely on the legislation of host-countries. In many cases where untitled residents have found themselves lying in the path of development projects they have been labelled as squatters, irrespective of whether or not they have rights as legal possessors under the Land Law.<sup>71</sup> In cases where people do have a full land title, they may

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<sup>67</sup> Law on Environmental Protection and Natural Resource Management 1996, Article 6.

<sup>68</sup> Constitution of the Kingdom of Cambodia, Article 44; Land Law 2001, Articles 4 & 5.

<sup>69</sup> Presentation by Dr. Franz-Volker Müller of GIZ-Cambodia, *Land Registration in Cambodia: Impacts of First Registration on the Rural Population of a Post Conflict Country*, 3rd European Forum on Rural Development, March 2011. <http://www.ruralforum.info/images/sesiones/2-cambodia.pdf> (accessed November 2011).

<sup>70</sup> Land Law 2001, Chapter 4.

<sup>71</sup> See Grimsditch, M. & Henderson, N. *Untitled: Tenure insecurity and inequality in the Cambodian land sector*. Bridges Across Borders Southeast Asia, Centre on Housing Rights and Evictions & Jesuit Refugee Service, 2009.

still be relocated and have land legally expropriated if this is deemed to be in the public interest, as set out in the Law on Expropriation. However, although the long-awaited Expropriation Law was passed in 2010, it states that a number of sub-decrees<sup>72</sup> must be passed in order to elaborate on key provisions. This includes: the establishment and functioning of the Expropriation Committee and Complaints Resolution Committee, the complaint procedure, and the form and process for payment of compensation. These sub-decrees have still not been passed. Furthermore, the process for dealing with the relocation of those people who actually are non-lawful settlers living on state land is also far from adequate, and consists of a single circular<sup>73</sup> that has yet to be fully implemented. Due to the gaps in Cambodian legislation and deficiencies in its implementation, without adequate institutional safeguards, developers and financiers risk becoming involved in protracted disputes which not only harm their reputation and delay the implementation of their projects, but also threaten to violate the legal rights of Cambodian citizens.<sup>74</sup>

Another law containing important safeguards with application to development projects is the Law on Environmental Protection and Natural Resource Management. The law states that the relevant ministries should consult with the MoE before issuing any decision or undertaking any activities related to the preservation, development, management or use of natural resources. Project implementers must abide by domestic regulations related to pollution, namely the sub-decrees on solid waste management, water pollution, and air pollution, and all projects should be subject to EIAs.<sup>75</sup> In addition, the Forestry Law adds that the law should be “implemented to ensure public participation in any government decision that has the potential for heavy impact on concerned general citizens, livelihoods of local communities and forest resources of the Kingdom of Cambodia.” It goes on to state that EIAs “shall be made available for public comment.”<sup>76</sup> The Forestry Law also contains provisions with special significance to communities (such as those interviewed for this paper) who depend on NTFP collection for their livelihoods, and protects the “traditional user rights” of those living in or close to the permanent forest reserve. This includes the right to sustainably harvest forest products for sale.<sup>77</sup>

A crucial safeguard, but also a key weakness in the process of approval and implementation of large infrastructure projects in Cambodia, is the conduct of a high quality EIA. In Cambodia, projects are often approved and even implemented prior to completion of a full EIA – even major projects with potentially far-reaching impacts, as was the case with the Kamchay dam. Consultation and public participation is often poor, despite the environment law clearly stating

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<sup>72</sup> A sub-decree is generally used to elaborate on a specific provision contained in law, setting out the process or procedure for the implementation of that provision. According to the Office of the United Nations High Commissioner for Human Rights in Cambodia: “A sub-decree is adopted by the Council of Ministers and signed by the Prime Minister. A sub-decree must be in strict conformity with the Constitution and conform to the Law to which it refers.” ([http://cambodia.ohchr.org/klc\\_pages/klc\\_english.htm](http://cambodia.ohchr.org/klc_pages/klc_english.htm))

<sup>73</sup> “A circular is an instrument that a Ministry or higher authority use to clarify a point of law or to provide instructions. A circular is only advisory and does not have the force of law.” ([http://cambodia.ohchr.org/klc\\_pages/klc\\_english.htm](http://cambodia.ohchr.org/klc_pages/klc_english.htm))

<sup>74</sup> For a more detailed summary of the current legal framework and land tenure situation in Cambodia see: USAID Land Tenure and Property Rights Portal, *Country profile: Cambodia*, <http://usaidlandtenure.net/usaidltpproducts/country-profiles/cambodia> (accessed November 2011).

<sup>75</sup> Law on Environmental Protection and Natural Resource Management 1996, Article 6.

<sup>76</sup> Forestry Law 2002, Article 4.

<sup>77</sup> Forestry Law 2002, Article 40.

that the MoE must “encourage participation by the public in environmental protection and natural resource management”.<sup>78</sup> The law states that the process for public participation should be specified by sub-decree.<sup>79</sup> However, this sub-decree has not been passed, and there are no indications that it has yet been drafted. In the absence of adequate guidelines, what public consultation does take place is rarely participatory and is generally not conducted with a large enough sample of affected people to be in any way representative. As stated by Sam Chamroeun, then Director of the Department of Environmental Planning and Legal Affairs at the Cambodian Ministry of Environment:

There is no tradition of public participation in environmental assessment and development planning processes. Due to the lack of a clear procedure for public participation, the public has difficulty in learning how to use the right of access to information as well as participate in decision-making on the protection of the environment and natural resource management.<sup>80</sup>

The situation is further exacerbated by a lack of awareness (or concern) from a number of important ministries about the importance of the EIA process. To quote Sam Chamroeun again, “[t]he need for environmental assessment in Cambodia is still widely considered as secondary to the need for development. The significance of EIAs is not fully recognized by, for example, many of the government ministries responsible for infrastructure or industrial and agricultural development.”<sup>81</sup> It can also be seen that many companies, both domestic and foreign, have similar attitudes. The MoE has worked to develop and implement improved EIA guidelines and sought additional training for its staff on best practice in EIA and monitoring, however, as one Cambodian researcher interviewed for this paper stated: “in terms of financial and technical capacities, the concerned government ministries and agencies are way behind the private sector that they are supposed to be monitoring.” Additionally, there are very few qualified EIA companies approved and registered with the MoE, and just a handful of companies currently conduct EIAs in Cambodia.

Although gaps still remain in the legislative and policy framework for management of hydropower in Cambodia, the laws related to the environment, land, and forest could provide a number of necessary safeguards to protect the rights of affected people and the natural environment until such time as a more comprehensive framework is developed. However, due to various reasons, including lack of capacity and expertise, inadequate human and financial resources – and in some cases a lack of political will, implementation of these laws is often inconsistent and monitoring and enforcement in many cases is non-existent.

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<sup>78</sup> Law on Environmental Protection and Natural Resource Management 1996, Article 16.

<sup>79</sup> Law on Environmental Protection and Natural Resource Management 1996, Article 17.

<sup>80</sup> Sam Chamroeun, Director of the Department of Environmental Planning and Legal Affairs at the Cambodian Ministry of Environment, *Cambodia Water Resources Development: A review of the existing policy and legislation framework*, no date (p10).

<sup>81</sup> Sam Chamroeun, Director of the Department of Environmental Planning and Legal Affairs at the Cambodian Ministry of Environment, *Scoping Study of Existing Frameworks Related to the World Commission on Dams Strategic Framework – Cambodia*, no date (p32).

## **The Kamchay Environmental Impact Assessment: “The rice is already cooked”**

A number of problems were encountered during the Kamchay EIA process, and this is clearly an area where additional safeguards of lenders can play a vital role in ensuring that adequate assessments are conducted and that the public are properly consulted prior to project implementation. The Kamchay project was subject to an EIA conducted by the local company *SAWAC Consultants for Development Co. Ltd.* Cambodia’s 1999 Sub-decree on Environmental Impact Process sets out the types of projects that require an EIA be conducted, and this includes all hydropower dams with generating capacity over 1 MW. The process first requires the submission of an Initial Environmental Impact Assessment (IEIA), after which a full EIA must be completed if the project is deemed to have a “serious impact to the natural resources, ecosystem, health or public welfare.” One of the EIA sub-decree’s stated objectives is to “encourage public participation in the implementation of the EIA process and take into account their input and suggestions in the process of project approval.” The Ministry of Environment has the responsibility to review all EIAs in collaboration with concerned ministries and technical agencies, and also to conduct follow-up monitoring to ensure that the project implementer follows the Environmental Management Plan set out in the EIA. The government body responsible for approving the project must do so only after thorough consideration of the EIA’s findings and the recommendations of the MoE.<sup>82</sup>

At the time field research for this paper was conducted, the full EIA was not yet approved by the Ministry of Environment, even though construction had been on-going since 2007 and was on track to be complete in December of 2011. In September 2011, a revised EIA was presented at an inter-ministerial workshop facilitated by the MoE, but it was still under discussion at this stage. Although it is likely that there will be minimal changes, as of November 2011, there had been no word from the MoE that the report had yet received full approval. The fact that the full EIA was still not finalized and approved during the construction stages of the project means no comprehensive Environmental Management Plan (EMP) was approved and published, despite the fact that people began to experience the project’s impacts soon after construction commenced. The process of the EIA has been far from adequate, and meaningful consultation with affected communities has been minimal and at times, non-existent. Throughout the implementation of the Kamchay project’s construction stages it is apparent that the company and local authorities did not have a full plan for dealing with all of the project’s impacts. A number of problems had to be dealt with on a case-by-case basis as and when they emerged – often after angry residents took to the streets to protest.

A draft Initial EIA was completed in October 2006 (keep in mind that the BOT agreement was signed in *February* 2006) and a consultation organized in Kampot to discuss its contents. However, no affected people or local organizations were invited, and the participants were mainly government officials. One international organization is known to have been invited to the consultation. When a local NGO coalition later questioned this and asked the EIA company why no other organizations were invited and why no local groups were represented, they were told that there was no more space in the meeting room for additional participants. The report was not

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<sup>82</sup> Sub-decree on Environmental Impact Assessment 1999, Articles 1, 3, 6, 8 & Annex.

widely published, but after obtaining a copy of the IEIA, a group of local and international organizations submitted their concerns to the MoE regarding the process and lack of detail in the IEIA report, but received no response. In March 2011 a consultation workshop was held to discuss the draft full EIA, but again, no affected people were invited and all the local representatives were government officials. One local organization joined the meeting. This was followed in September 2011 by the inter-ministerial meeting to discuss a revised version of the EIA report – for the first time a community member was able to attend, and one woman from a village dependent on NTFP collection was able to join the meeting. She was joined by representatives from NGO Forum and the local human rights NGO, Adhoc. Invitations to this event were received at short notice, and although the civil society and community attendees were able to submit comments they were not able to review the EIA document in advance.

Although it is a positive step that a community member was at last able to join a consultation workshop, it is a serious failing that this was not the case from the beginning of the project's development, and of course a single person clearly cannot represent the concerns of the hundreds of potentially affected people. It is also hugely problematic that the project was approved and implemented in the absence of a full EMP. The revised EIA states that US\$12 million was provided for mitigating environmental impacts during the construction stages. However, in the absence of full public consultation and publication of the EIA and EMP, there has been no public oversight of the implementation of environmental mitigation programs and it is not clear if or how this fund has been spent. To hold discussions on an EIA for a project that has almost completed its construction phase clearly defeats the purpose, and to quote a Cambodian saying: “angkor klai chea bai”. The rice is already cooked.

Recent reforms in China's domestic environmental and EIA laws have been widely praised, and China's Ministry of Environmental Protection (MEP) has recently provided a number of training workshops to Cambodian MoE staff covering aspects of the EIA process.<sup>83</sup> This capacity building role is very valuable, but as has been illustrated in numerous cases, including the Kamchay project, the leverage and influence of the MoE is weak in comparison to the ministries involved in approving infrastructure development. This is especially true when a project has already received high-level backing prior to a full assessment. The mandate of the EIA Department would be strengthened by stronger commitments and clear safeguards on the part of lenders such as *China Exim* requiring high standard EIAs be conducted *prior* to project approval, with management plans monitored throughout project implementation – this is discussed more in the following section.

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<sup>83</sup> American Friends Service Committee website, *With AFSC Support, China finds New Role in Assisting Developing Countries*, <http://afsc.org/story/afsc-support-china-finds-new-role-assisting-developing-countries> (accessed November 2011).

## Environmental and social safeguards of the developer and financier

Chinese overseas hydropower projects are sometimes tied to aid packages agreed between the Chinese Government and that of the recipient, as was originally reported to be the case with the Kamchay hydropower project. At the time the agreement was signed for the Kamchay loan, it was reported in the local and international press that this was part of a US\$600 million aid package to Cambodia.<sup>84</sup> However, as mentioned earlier, it appears that the loan is not in fact part of an aid package, and is a commercial loan to *Sinohydro*. It is often the case that when high level meetings are held between the Cambodian leadership and Chinese delegates, aid, investment and trade are all discussed, and various agreements signed. In recent years, these meetings have been followed by official announcements of increased aid and investment, though media articles rarely differentiate between the two. In some cases, lack of information makes it difficult to distinguish aid projects from investments. This is dealt with in more detail in the following section, while the remainder of this section will focus on the safeguards that apply to Chinese overseas development projects whether they are funded by official aid or direct investment.

### Oversight of Chinese foreign aid and investment

All overseas projects worth over US\$200 million and all *China Exim* loans over US\$100 million must be approved by the State Council, the highest administrative body of the Chinese Government.<sup>85</sup> The current Chair of the Council is Premier Wen Jiabao, who signed the initial Memorandum of Understanding for the Kamchay project with Cambodian Prime Minister Hun Sen in 2005, and attended the project's ground-breaking ceremony in 2006. The Ministry of Commerce (MOFCOM) is the administrative department authorized by the State Council to oversee foreign aid. MOFCOM is responsible for the formulation of foreign aid policies, regulations and plans, and examination and approval of foreign aid projects. Chinese embassies or consulates abroad are in charge of the direct coordination and management of foreign aid projects in the relevant countries.<sup>86</sup> Chinese aid is generally provided through grants, interest free loans, and low-interest loans, or concessional loans. The *Export-Import Bank of China* is responsible for the project appraisal, loan disbursement, credit management and collection of concessional loans.<sup>87</sup>

Although at present there is no unified system of safeguards applying to China's development assistance and direct investment, as will be shown below, there are signs that the Chinese Government is beginning to take greater notice of the need to practice improved oversight of overseas projects. There are also positive signs that project implementers are beginning to pay greater attention to their own responsibilities. This is not to say that comprehensive and binding safeguards are likely to be adopted and enforced anytime in the immediate future, as many influential actors still view such safeguards as a potential hindrance to overseas investment. There are still no binding safeguards on the social and environmental impacts of overseas Chinese development projects, and no mechanism for the complaints of those who feel they have been

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<sup>84</sup> BBC Online, *China gives Cambodia \$600m in aid*, 8 April 2006.

<sup>85</sup> Brewer, N. *The New Great Walls: A Guide to China's Overseas Dam Industry*, International Rivers, July 2008.

<sup>86</sup> Information Office of the State Council, *White Paper on China's Foreign Aid*, April 2011 (Part V, Management of Foreign Aid).

<sup>87</sup> Takaaki Kobayashi, *Evolution of China's Aid Policy – Working Paper of JBICI*, Japan Bank for International Cooperation Institute, April 2008 (p16).



negatively impacted by projects funded by Chinese aid. With this in mind, following is a summary of the recent developments that may have relevance to the Kamchay project and other similar projects that are considered, approved and implemented in the future.<sup>88</sup>

### **Nine Principles on Encouraging and Standardizing Foreign Investment**

In October 2006 the State Council issued its “Nine Principles on Encouraging and Standardizing Foreign Investment”, which (according to an unofficial translation) aim to “seize economic globalization and regional cooperation opportunities, and encourage qualified enterprises to actively and steadily participate in international economic and technological cooperation, and to further enhance the level of opening up”.<sup>89</sup> The principles include: improving the implementation of overseas investments; strengthening supervision of state-owned assets overseas; complying with local laws and regulations, making a commitment to and fulfilling the necessary social responsibility to protect the legitimate rights and interests of local employees, paying attention to environmental resource protection, caring for and supporting the local community and people's livelihoods; and creating a friendly environment for public opinion and preserving China's image and corporate reputation. Although falling short of binding regulations, these principles show an increased focus on oversight and supervision of overseas projects and an acknowledgement that corporate social responsibility should be practiced and the needs of local communities considered.

### **Guidelines to state-owned enterprises**

State-owned enterprises (SOEs) are also subject to the oversight of the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council. SASAC performs audits of SOEs, and companies who perform poorly may be disciplined by SASAC, which also has the power to replace directors if a company performs badly. *Sinohydro* has been rated poorly several times for its operations inside China, and its rating was downgraded from B to D in 2006 due to violations of domestic environmental and safety standards, although the company was later upgraded.<sup>90</sup>

In order to encourage improved corporate social responsibility (CSR) in SOEs, SASAC issued its “Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities” in January 2008. According to an English translation on the SASAC website, the Guidelines “give impetus to state-owned enterprises ... to earnestly fulfil corporate social responsibilities, so as to realize coordinated and sustainable development of enterprises, society and environment in all respects.”<sup>91</sup> The Guidelines clarify the meaning and importance of CSR and states that “fulfilling CSR is not only [SOEs'] mission and responsibility, but also an ardent expectation and requirement from the public”, and that fulfilling CSR is necessary

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<sup>88</sup> For a detailed compilation of all policies currently applying to China's overseas investments see: Global Environmental Institute, *Environmental Policies on China's Overseas Investment*, 2011.

<sup>89</sup> Brewer, N. *The New Great Walls: A Guide to China's Overseas Dam Industry*, International Rivers, July 2008 (Appendix 2).

<sup>90</sup> Bosshard, P. *Sinohydro's IPO: An opportunity for environmental reform*, The Asia Water Project, 8 June 2010. <http://chinawatererrisk.org/opinions/sinohydro%e2%80%99s-ipo-an-opportunity-for-environmental-reform/> (accessed November 2011).

<sup>91</sup> SASAC Website, *Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities*. <http://www.sasac.gov.cn/n2963340/n2964712/4891623.html> (accessed November 2011).



for realizing sustainable development of SOEs. It remains to be seen what impact such guidelines have on the ground as CSR is still a relatively new concept to Chinese enterprises, and a number of observers have noted that Chinese firms often view CSR activities as one-off philanthropic projects, such as construction of school buildings or making charitable donations. The long-term benefits of such projects are questionable for communities such as those impacted by the Kamchay dam, who really need well-planned and committed support to rebuild their livelihoods.

### **Draft regulations on overseas investments of Chinese enterprises**

For a number of years, draft regulations on the overseas investment of Chinese companies have been under discussion by various institutions, including the Ministry of Environmental Protection (MEP), the Ministry of Commerce (MOFCOM), and the China Banking Regulatory Commission. According to a People's Daily article from 2010, the rules require that companies take necessary steps to protect the environment, and take on increased corporate social responsibility. According to an MEP official, the guidelines also include sections on evaluation of environmental impacts, protection mechanisms, and compensation.<sup>92</sup> However, the regulations have not yet moved beyond the draft stage, and there is no sign that they are likely to be passed any time soon. Even when they are passed, as non-binding guidelines it is not clear what impact they will have and to what extent they will be enforced.

### **China-Exim Bank's Guidelines on Environmental and Social Impact Assessments**

*China-Exim* adopted its own environmental policy in 2004, which was updated by more detailed guidelines published in 2008. The bank's "Guidelines for the Environmental and Social Impact Assessment of China Export and Import Bank's Loan Projects" set requirements for overseas projects to complete social and environmental impact assessments before any loan is approved. In addition, the Guidelines require that assessments must continue during the loan period and monitoring of impacts should occur after the loan has been granted. The project implementer is required to abide by host country laws and regulations and acquire all the necessary environmental permits. In cases where the necessary legal framework does not exist or is inadequate, Chinese or international practice should be followed. The guidelines also state that local people's rights to land and resources should be respected, resettlement problems properly handled, and open public consultations held for projects with severe environmental impacts.<sup>93</sup> Again, these Guidelines lack detail and there is no mechanism for affected people or concerned groups to complain if they feel that the guidelines are not adhered to. However, the Guidelines do state:

For projects under construction or operating that cause serious environmental and social problems, China EXIM Bank has the right to require the borrowers or project owners to take timely measures to eliminate these impacts. If they fail to eliminate the impacts of the

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<sup>92</sup> China Daily, *Green rules eye Chinese firms abroad*, 29 May 2009; China Daily, *Green norms for overseas investment soon*, 9 July 2010.

<sup>93</sup> China Export and Import Bank, *Guidelines for Environmental and Social Impact Assessments of the China Export and Import Bank's (China EXIM Bank) Loan Projects*, 28 August 2007 (Article 12).

projects, the China EXIM Bank has the right to stop disbursing the loans and demand an early payback of the loan, in accordance with the contract.<sup>94</sup>

Although lacking in detail, a number of observers have stated that *Exim's* guidelines show some promise and, according to an article by environmental NGO Friends of the Earth, “have shown potential to deter environmental and social risks abroad.”<sup>95</sup> This article goes on to cite the case of the Belinga iron ore mine in Gabon as a positive example of *Exim* taking environmental impacts of funded projects into consideration and taking appropriate action. The Belinga project included extensive infrastructure works, and in addition to the mine itself, the project also included construction of a deep-water port, rail tracks, and two hydropower dams. The project was set to be developed by *China National Machinery and Equipment Import and Export Corporation* with financing from *China Exim*. Local civil society groups raised objections to the project, concerned that the mine and dams were likely to have extensive environmental and social impacts. In 2008, after coming under pressure from local civil society, the project stalled as *Exim* froze the funding and sought to verify the results of the project’s impact assessments. Since then the project has languished, with no sign that it is likely to move ahead soon.<sup>96</sup>

In an article from 2010, International Rivers also cites the Belinga case as a positive example of *China Exim's* improved approach to dealing with local concerns and assessing project impacts. The article refers as well to the case of the Ilisu dam on the River Tigris in Turkey as another encouraging illustration of Chinese developers and financiers’ increased attention to social and environmental considerations. The Ilisu case has attracted considerable attention over the last decade due to its well documented potential social and environmental impacts, as well as strong resistance from local people. The project was originally supported by financing from German, Swiss and Austrian credit agencies, however, after an independent committee documented the widespread policy violations connected to the project the financiers decided to pull out. In late 2009 Turkey invited China to support the project, which immediately sparked activity from local and international NGOs, who urged China not to become involved in a project that they saw as extremely harmful.<sup>97</sup> The campaign was apparently successful, and Chinese developers and financiers have so far steered clear of the project. Although details are hard to come by, it appears that in both of the above cases, concerns about the social and environmental impacts, as well as opposition from local people and civil society – and the associated negative publicity, all played a part in dissuading Chinese investors from pursuing these projects.

Despite there being some potentially positive examples of the guidelines’ impact (and it should be noted that *China Exim* was never directly involved in the Ilisu project), it is clear that more needs to be done to expand on these safeguards and bring them closer to the standards of the international financial institutions or at a minimum closer to China’s own domestic standards, which have been significantly strengthened in recent years. Enhanced safeguards would not only

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<sup>94</sup> Ibid. (Article 19).

<sup>95</sup> Matisoff, A. *Credit where it's due*, 26 July 2010. <http://www.chinadialogue.net/article/show/single/en/3742> (accessed November 2011).

<sup>96</sup> Bank Track website, *Belinga iron ore mine*, updated 26 July 2011. [http://www.banktrack.org/show/dodgydeals/belinga\\_iron\\_ore\\_project](http://www.banktrack.org/show/dodgydeals/belinga_iron_ore_project) (accessed November 2011).

<sup>97</sup> Bosshard, P., *China's dam builders clean up overseas*. Asia Times Online, 12 May 2010.

help to protect the environment and communities where *Exim* funded projects are located, they also have the potential to make projects more sustainable in the long run. As one observer states:

Without compliance with the principles of sustainable development, developmental results on the ground are difficult to achieve. As a responsible financier in a wider multilateral development partnership, it is not only in the interest of the China Exim Bank, but also in the interest of all other ECAs [export credit agencies] that the China Exim Bank develops its operational policies and procedures, which should be transparent to the public in general inside and outside China.<sup>98</sup>

### **Sinohydro Corporation's policies and guidelines**

At the time of writing, *Sinohydro* had developed draft environmental policy guidelines for its overseas operations but had yet to adopt them. In an attempt to streamline operations and improve standards, the company is in the process of developing Sustainability Guidelines that will apply to the whole group and its subsidiaries.<sup>99</sup> The Guidelines include sections on various aspects of the company's work, including health and safety, environmental standards, sustainability, community relations and consultation. In the process of developing these guidelines, *Sinohydro* invited input from the environmental NGO International Rivers.<sup>100</sup> According to International Rivers, in recent years "Sinohydro has demonstrated an increasing sensitivity to projects with environmental, safety and social issues. Sinohydro is seeking to build its reputation as a leader in the international market."<sup>101</sup>

*Sinohydro* is also a member of the International Hydropower Association (IHA). The IHA is a non-profit association of industry members, organizations, and individuals who are involved in the hydropower sector. It aims to "advance sustainable hydropower's role in meeting the world's water and energy needs".<sup>102</sup> One of the IHA's key initiatives is the Hydropower Sustainability Assessment Protocol (HSAP). The protocol was launched in 2011 and is a tool used to assess the sustainability of hydropower projects according to various objective criteria,<sup>103</sup> although *Sinohydro* has not yet adopted the HSAP. There has been criticism of the IHA and HSAP from some civil society groups who are concerned that the protocol is voluntary and non-binding, and rather than setting standards it scores a project according to various criteria. There is no obligation to meet specific standards, and no penalties apply if a project scores poorly.<sup>104</sup> Other groups have welcomed the HSAP, if somewhat cautiously, as a step towards increased accountability on the

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<sup>98</sup> Eisuke Suzuki, *Bi-lateral Policy Orientation in the Multilateral Development Policy: A Challenge for the China Exim Bank and its Accountability*, Chinese Journal of International Law, Vol. 6, No. 1, 127–133 (2007).

<sup>99</sup> According to the company website, Sinohydro has 16 "Engineering and Construction Bureaus" which are all wholly owned subsidiaries. <http://eng.sinohydro.com/en/idems/companyDetail.asp?ArticleID=104&ClassID=65> (accessed November 2011).

<sup>100</sup> Personal communication with International Rivers. See also: Bosshard, P., *Sinohydro's IPO: A chance for environmental reform*, 7 June 2010, <http://chinawaterrisk.org/opinions/sinohydro%E2%80%99s-ipo-an-opportunity-for-environmental-reform/> (accessed November 2011).

<sup>101</sup> International Rivers website, *Sinohydro Corporation*, <http://www.internationalrivers.org/node/3600> (viewed November 2011).

<sup>102</sup> IHA website, [http://www.hydropower.org/about\\_iha/introduction.html](http://www.hydropower.org/about_iha/introduction.html) (accessed November 2011).

<sup>103</sup> HSAP website, <http://hydrosustainability.org/Hydropower-Sustainability-Assessment-Protocol.aspx> (accessed November 2011).

<sup>104</sup> For a more detailed critique of the HSAP see: International Rivers factsheet, *The HSAP: Weakening Global Dam Standards*. <http://www.internationalrivers.org/node/6569> (accessed November 2011).

part of the hydropower sector.<sup>105</sup> As the protocol was only formally launched in June 2011 the jury is still out on what its impact will be.

In recent years *Sinohydro* has also shown willingness to cooperate more closely with civil society organizations, and in addition to the above mentioned dialogue between *Sinohydro* and International Rivers, the company has also engaged in community development projects in Laos with the Chinese NGO, Global Environmental Institute (GEI). *Sinohydro* worked with GEI on a biogas project that aimed to provide alternative income generation options for people affected by the company's US\$200 million Nam Ngum 5 dam.<sup>106</sup> This increased commitment to CSR is a welcome development, and was no doubt influenced by a number of factors. *Sinohydro* is positioning itself as a global leader in hydropower with projects across the globe, and as such is seeking to bolster its reputation and develop and apply standards that are befitting of a global leader in hydropower development. In addition, the Shanghai Stock Exchange issued notices in 2008 that called on listed companies to strengthen CSR and provided guidelines on environmental disclosure.<sup>107</sup> *Sinohydro's* recently realized plan to list on the stock exchange may also have been a motivating factor in improving the company's environmental policies.

Positive though these signs are, it remains to be seen how effective *Sinohydro's* Sustainability Guidelines will be once adopted, and it is also unclear what, if any, impact the company's IHA membership will have on its future projects. There is clearly support for improved company standards at the executive level, as evidenced by the positive dialogue with civil society and the open environment in which the company has developed its new guidelines. However, the real challenge will be in ensuring that these guidelines are implemented on the ground at the project level.

As illustrated in the Kamchay case study, one of the main failings of the project in mitigating all of its impacts was the lack of adequate planning prior to the start of construction. The lack of adequate environmental impact assessment and mitigation strategies in some cases led to conflict with local people. Several serious problems had to be resolved on a case-by-case basis. This approach is clearly problematic, and in the case of those people whose livelihoods are dependent on NTFP collection, the negative impacts of the loss of forest access are yet to be resolved. The case of the NTFP collectors also highlights how safeguards must provide protections for those who lose non-tangible assets, such as forest access, as various groups of affected people depend on land and resources in different ways. The adoption and implementation of high quality guidelines that apply to the various stages of future *Sinohydro* projects, from design, through construction to implementation, could potentially avoid some of the problems that became apparent during the development of the Kamchay dam.

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<sup>105</sup> For example, the international organization WWF supported the development of the Protocol: [http://www.panda.org/what\\_we\\_do/where\\_we\\_work/greatermekong/our\\_solutions/hydropower\\_roads/](http://www.panda.org/what_we_do/where_we_work/greatermekong/our_solutions/hydropower_roads/) (accessed November 2011).

<sup>106</sup> Meng Si, *Following the Money*, 20 September 2010. <http://www.chinadialogue.net/article/show/single/en/3825-Following-the-money> (accessed November 2011).

<sup>107</sup> China Business Review, *China's CSR Expectations Mature*, November 2008 - December 2008.

## Chinese development assistance and investment in Cambodia

Despite the fact that China is frequently labelled as an “emerging donor”, it has in fact been providing aid to developing countries since the 1950s. Although it may not be a new donor, it is true that China’s development assistance has evolved significantly over recent years, as has its approach to foreign direct investment. It can be seen that the figures for both Chinese development assistance and investment to Cambodia have risen steeply (although perhaps not as rapidly as is often reported). This is reflected in the increased attention that China’s overseas activities are receiving from the international and local media, academia, civil society, multi- and bi-lateral development and financial institutions, and the governments of other countries. While the Cambodian government has warmly embraced China’s increased involvement, many other actors have expressed concerns. It is certainly true that China’s growing presence in the Mekong region presents new challenges to the existing status quo, especially in Cambodia, where for two decades the development sector has been largely dominated by Western bi-lateral donors and the main international financial institutions. With this in mind, the following section briefly looks at China’s approach to overseas development assistance and investment, along with some of the concerns frequently raised in Phnom Penh and more widely about China’s growing influence in the region.

### Misreporting of Chinese “aid” to Cambodia

Each year in Cambodia, high level meetings are held between senior figures in the Cambodian Government (usually including the Prime Minister himself) and counterparts from China, to discuss and sign-off on future aid pledges, investment and economic cooperation. In fact, many of the agreements signed at such meetings are finalized at an earlier date, but are saved for such meetings where they can be signed at official ceremonies accompanied by much fanfare.<sup>108</sup> In recent years these meetings have been followed by extensive media coverage and announcements by the Cambodian Prime Minister on the ever-increasing levels of Chinese development assistance and investment. Subsequent media coverage tends to focus on the total value of the agreements signed and often describes this figure as “aid”. This is despite the fact that in addition to *actual* aid commitments, such as grants, interest free loans and concessional loans, these agreements also include export credits and straightforward loans for investment projects, in addition to various other mechanisms for economic cooperation.

The Kamchay dam provides a good illustration of this confusion. As has already been mentioned, the loan for the Kamchay project is not concessional and there is no evidence to show that the project is part of a Chinese aid package to Cambodia. Although it was reported in local and international media back in 2006 that the loan was agreed as part of a US\$600 million Chinese aid package to Cambodia,<sup>109</sup> on closer inspection it can be seen that China committed nowhere near this amount in aid in 2006. According to the Cambodian Government’s Aid Effectiveness Report for 2010, in 2006 China gave aid totalling US\$53.2 million, far short of the reported US\$600 million. Chinese aid to Cambodia increased in the following years, reaching US\$92.4 in 2007, and

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<sup>108</sup> Brautigam, D. *Chinese aid in Cambodia: How much?*, 17 May 2010. <http://www.chinaafricarealist.com/2010/05/chinese-aid-in-cambodia-how-much.html> (accessed November 2011).

<sup>109</sup> See for example: BBC Online, *China gives Cambodia \$600m in aid*, 8 April 2006.

US\$95.4 million in 2008, but even if combined this could not cover the full cost of the Kamchay dam project.<sup>110</sup> As noted earlier in this paper, the project is not listed in the Cambodian Government's online database of official development assistance. Online articles available in Chinese show that the loan is most likely a commercial loan to *Sinohydro*,<sup>111</sup> and although details of the loan are not publicly available, according to an article posted on the SASAC website, the loan agreement was not signed until late 2007.<sup>112</sup>

There is also evidence to suggest that Chinese direct investment is over-stated, with Cambodian government statements often quoting the figures for *approved* investment, rather than *realized* investment. According to a report by the Cambodian Development Resource Institute (CDRI), only 30% of approved investments have been realized.<sup>113</sup> The above information is not included to attempt in any way to minimize the growing influence of China in Cambodia, rather to add perspective.

### **Aid and investment with Chinese characteristics**

A common perception associated with Chinese development assistance is that it comes without conditions. Although the reality is perhaps more complex than this, it is certainly true that traditionally China has been uncomfortable with the concept of imposing requirements for reform, good governance and transparency that are usually associated with the programs and projects supported by traditional donors. In 1964, Premier Zhou Enlai formally articulated China's approach to development assistance in the "Eight Principles for China's Aid to Third World Countries". The Eight Principles include an emphasis on mutual benefit, and a commitment that in providing aid "the Chinese Government strictly respects the sovereignty of the recipient countries, and never attaches any conditions or asks for any privileges."<sup>114</sup> These principles have been a feature of Chinese development assistance ever since, and indeed, Chinese foreign policy in general.<sup>115</sup> Although the Chinese Government is yet to publish its aid policy, a White Paper published in April 2011 by China's State Council provides a brief overview of Chinese aid to date, and prospects for the future. The White Paper states that "keeping pace with the times without imposing any political conditions on recipient countries, China's foreign aid has emerged as a model with its own characteristics."<sup>116</sup>

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<sup>110</sup> Royal Government of Cambodia, *The Cambodia Aid Effectiveness Report 2010*, prepared by the Cambodian Rehabilitation and Development Board of the Council for the Development of Cambodia for the Third Cambodia Development Cooperation (p10).

<sup>111</sup> Lin Long, *Two Companies named "Zhong" meet at Cambodia Kamchay Hydropower Plant*, 10 November 2009. <http://finance.ifeng.com/news/corporate/20091110/1445366.shtml> (accessed November 2011).

<sup>112</sup> SASAC website, *Sinohydro Corporation Cambodia Kamchay Hydropower Plant project financing complete*, 4 February 2008. <http://www.sasac.gov.cn/n1180/n1226/n2410/n314289/3898284.html> (accessed November 2011).

<sup>113</sup> Tong Kimsun & Hem Sochet, *Chinese Investment in Cambodia*, in Cambodia Development Resources Institute: Annual Development Review 2009-10 (p180).

<sup>114</sup> For full details of the background and full content of the eight principles see: Ministry of Foreign Affairs of the People's Republic of China, *Premier Zhou Enlai's Three Tours of Asian and African countries*, 17 November 2000. Viewable online at <http://www.fmprc.gov.cn/eng/ziliao/3602/3604/t18001.htm> (accessed November 2011).

<sup>115</sup> Speech by Premier Wen Jiabao, *Carrying Forward the Five Principles of Peaceful Coexistence in the Promotion of Peace and Development*, 28 June 2004. <http://www.fmprc.gov.cn/eng/topics/seminaronfiveprinciples/t140777.htm> (accessed November 2011).

<sup>116</sup> Information Office of the State Council, *White Paper on China's Foreign Aid*, April 2011 (preface).



Chinese development assistance is not subject to the same kinds of safeguards as the traditional donors such as the World Bank and ADB. These safeguard policies aim to ensure the supported programs and projects meet certain minimum standards and, amongst other things, that negative social and environmental impacts are avoided or mitigated. These policies are publicly available and in the case of, World Bank or ADB funded projects, mechanisms exist for affected people to file complaints if they feel that safeguards are violated and they are negatively affected. Likewise, many bi-lateral donors have policies that govern how their support is disbursed and how programs and projects are designed, implemented and supervised. Although a number of observers have questioned the adequacy and accessibility of these safeguards, they are seen by many as a basis for monitoring project implementation, they are available to the public, and there are numerous examples of complaints being accepted and investigated.<sup>117</sup>

As stated in a publication of the Chinese NGO, Global Environmental Institute, in contrast to donors from developed countries, “China has no environmental regulations and no clear-cut, binding rules specifically for foreign aid. Instead, it is governed by departmental rules rather than laws and regulations, which makes it difficult to find legal recourse for environmental issues arising from foreign aid.”<sup>118</sup> In addition, although the Chinese Government often plays an important role in facilitating the agreement of large investment projects, environmental and social safeguards are also lacking. In the absence of such safeguards, the increase in Chinese dam building across the world is seen by many as a cause for concern, as dam builders and financiers have yet to adopt environmental policies that meet international standards. Although, as discussed in the previous section, there are promising signs that improved guidelines are being developed and adopted in a number of areas related to overseas development projects, there is still a considerable way to go. Concerns have been raised that in a number of cases, China is financing and developing hydropower projects that would most likely not be in compliance with the safeguard standards of other lenders. For example, International Rivers has called the *China Exim* funded Merowe dam, located in northern Sudan, “one of the world’s most destructive hydropower projects”.<sup>119</sup> A preliminary analysis of the project conducted in 2005 by the International Rivers Network and the UK research group, The Corner House, found 63 violations of the World Bank safeguard policies related to environmental standards, natural habitats, involuntary resettlement and cultural property.<sup>120</sup>

As China takes on a more prominent role in global development, this model has caused some apprehension amongst the traditional donors and international financial institutions who over the past 20 years, and under the watchful eye of many civil society groups, have developed comprehensive safeguard policies aimed at avoiding or mitigating the social and environmental harms of their projects. One major concern for the traditional donors is that the “strings-free” nature of Chinese lending is becoming a threat to their own loan portfolios. A frequently voiced

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<sup>117</sup> For a background on the evolution of the World Bank Inspection Panel and key cases see: Clark, D. et al (eds.), *Demanding Accountability: Civil-society claims and the World Bank Inspection Panel*, 2003.

<sup>118</sup> Global Environmental Institute, *Environmental Policies on China’s Overseas Investment*, 2011 (p46).

<sup>119</sup> International Rivers website, *Merowe Dam, Sudan*. <http://www.internationalrivers.org/africa/merowe-dam-sudan> (accessed November 2011).

<sup>120</sup> Bosshard, P. & Hildyard, N., *A Critical Juncture for Peace, Democracy, and the Environment: Sudan and the Merowe/Hamadab Dam Project: Report from a Visit to Sudan and a Fact-Finding Mission to the Merowe Dam Project 22 February – 1 March 2005*, International Rivers Network & The Corner House, May 2005.

concern is that governments with limited capacity to monitor or enforce stringent safeguards (and governments with little interest in enforcing them) are turning their backs on aid and loans from the traditional actors, and moving towards the less troublesome support offered by aid and investment from countries such as China.

However, even a cursory search of published articles on the impacts of Chinese aid shows that opinion is divided on whether China's approach to development assistance presents a threat or an opportunity. A 2007 article published in *Foreign Policy* described this model of "rogue aid" as being non-democratic and non-transparent, and that its effect is "typically to stifle real progress while hurting average citizens." The article cites the example of a US\$5 billion World Bank railway renovation project in Nigeria, which was close to agreement but was undercut at the last minute by a Chinese offer of US\$9 billion, with "no bids, no conditions, and no need to reform." The same article concludes by suggesting that this model is in no-one's best interest, aside from those of the "rogue" donors themselves.<sup>121</sup> Alternatively, Woods argues a more measured position that:

By quietly offering alternatives to aid-receiving countries, emerging donors are introducing competitive pressures into the existing system. They are weakening the bargaining position of western donors in respect of aid-receiving countries, exposing standards and processes that are out of date and ineffectual. The result is a serious challenge to the existing multilateral development assistance regime.<sup>122</sup>

### **Is Cambodia growing tired of the traditional donors?**

It is certainly arguable that many aid-recipients have grown tired of the conditions attached to the assistance provided by traditional donors. In Cambodia, a country which is still heavily dependent on aid, it may be the case that China is introducing an element of competition to a system that for so long has been dominated by mainly Western actors. Speculation that the Cambodian Government is no longer willing to play by the World Bank's rules came to a head in 2011, when the Bank announced it was indefinitely suspending future lending to the country. This suspension came about after several years of deteriorating relations between the Bank and the Cambodian Government. This included a damning Inspection Panel investigation into a World Bank funded forest concession project in 2005,<sup>123</sup> and an episode in 2006 when a number of projects were investigated and suspended due to allegations of corruption and procurement irregularities.<sup>124</sup> In 2011, a second Inspection Panel investigation was conducted in Cambodia, this time focussing on the Land Management and Administration Project (LMAP), a multi-donor funded land titling project. The complaint that prompted this investigation was submitted by residents from the Boeung Kak lake area of Phnom Penh, who were left facing forced eviction after the Cambodian

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<sup>121</sup> Moisés Naím, *Rogue Aid: What's wrong with the foreign aid programs of China, Venezuela, and Saudi Arabia? They are enormously generous. And they are toxic.* *Foreign Policy*, 1 March 2007.

<sup>122</sup> Woods, N., *Whose aid? Whose influence? China, emerging donors and the silent revolution in development assistance*, *International Affairs* 84: 6 (2008).

<sup>123</sup> Inspection Panel website, *Cambodia: Forest Concession Management and Control Pilot Project (2005)*.

<http://web.worldbank.org/WBSITE/EXTERNAL/EXTINSPECTIONPANEL/0,,contentMDK:22513320~pagePK:64129751~piPK:64128378~theSitePK:380794,00.html> (accessed November 2011).

<sup>124</sup> World Bank website, *Cambodia: World Bank Releases New Statement and Update, Phnom Penh*, 6 June 2006.

<http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20947353~pagePK:34370~piPK:34424~theSitePK:4607,00.html> (accessed November 2011).

authorities arbitrarily excluded them from the World Bank funded land titling process. The Panel found that there were serious breaches of the Bank's safeguard policies and issued a highly critical report.<sup>125</sup>

The Cambodian Government pre-empted World Bank action by prematurely cancelling the LMAP project. At the time, the Cambodian Prime Minister appeared on national television stating that he cancelled the project because the Bank attached too many "difficult conditions" to the project. Subsequently, the government's relationship with the Bank became increasingly strained, and as no compromise could be reached on how to resolve the Boeung Kak issue, the Bank announced in August 2011 that it had suspended future lending to Cambodia until such time as the case is adequately resolved.<sup>126</sup> A number of observers and the media were quick to make the connection to Chinese aid and investment. One media article suggested that Prime Minister Hun Sen could "shrug off" the World Bank suspension, as its support has been dwarfed for a number of years by the increased development assistance and direct investment from China.<sup>127</sup> At the time of the suspension, this sentiment was echoed by many working in the development sector in Cambodia. This speculation was fuelled by the Cambodian Prime Minister's strong public statements around the time, in which he dismissed "complicated" development assistance and praised the unconditional support of China.

Although the above sentiments are often repeated amongst donor and civil society circles in Phnom Penh, they may well be an over-simplification of the issue. In fact, many have observed that the influence of traditional donors has been weakening for a number of years. Although over the last decade much donor support has focussed on governance reform, anti-corruption and respect for human rights, numerous civil society observers have stated that progress in these areas has been extremely limited. Despite this limited progress, and the growing discontent within the Cambodian Government with perceived donor interference, aid pledges have continued to increase. This suggests that increased access to Chinese funds and investment is not necessarily pushing Cambodia away from the traditional donors and their development assistance. Additionally, much of the investment coming from China is in sectors that bi-lateral donors and IFIs are not funding in Cambodia, for example, hydropower and telecommunications. Again, this is not to minimize the influence of China as such, rather it is an attempt to add nuance to the on-going discussions around China's role and the impact of its aid and investment on the engagement and leverage of traditional donors.

Although beyond the scope of this paper, it should be noted that by no means are Chinese funded developments the only projects that have raised concerns regarding environmental and social impacts in Cambodia. Investors from various countries, including Singapore, France, and Vietnam, to name a few, have been connected to projects that have impacted on the environment and led to conflict with local communities. It should also be noted that a great many disputes continue to arise in connection with projects developed by domestic companies. Additionally, an on-going

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<sup>125</sup> Inspection Panel website, *Cambodia: Land Management and Administration Project* (2009).  
<http://web.worldbank.org/WBSITE/EXTERNAL/EXTINSPECTIONPANEL/0,,contentMDK:22512162~pagePK:64129751~piPK:64128378~theSitePK:380794,00.html> (accessed November 2011).

<sup>126</sup> The Guardian, *World Bank suspends new lending to Cambodia over eviction of landowners*, 10 August 2011.

<sup>127</sup> Asia Times Online, *Cambodia shrugs off aid curb*, 23 August 2011.

ADB and AusAid funded railway rehabilitation project is currently under the spotlight due to concerns about inadequate resettlement conditions and compensation.<sup>128</sup> As noted earlier in this paper, at least two World Bank projects have also been connected to serious negative impacts in recent years. This shows that some of the issues raised in this paper may not necessarily be specific to aid and investment from China, although these projects may be receiving more attention due to the scope and scale of Chinese investments over recent years.

The remainder of the paper discusses some of the opportunities for both Cambodian and Chinese authorities to improve the social and environmental safeguards that are applied to future projects funded by Chinese aid or investment, as well as highlighting key impacts that still need to be remedied at Kamchay. The role of developers and financiers is also considered, as are the opportunities for improved engagement on the part of local and international civil society.

## **Moving forward**

The Kamchay project provides an excellent case study for the purposes of analysing Chinese funded developments in Cambodia, and as the first project of its kind, it is also a useful basis for examining future projects. Not only was it the first large-scale hydropower project to be developed in Cambodia, it was also *Sinohydro's* first ever BOT project. The Kamchay case highlights deficiencies in the current models being pursued by various actors. Affected communities continue to be denied meaningful involvement in the processes and decisions that affect them, and environmental standards remain at best partially implemented and undeveloped. Those impacted by these shortcomings struggle to make their voices heard by decision makers and project implementers. Furthermore, in the view of this author, despite the best intentions of civil society actors who are active on such cases, current approaches often fail to achieve significant results. Although the case shows the potential negative impacts of safeguard gaps and failures in implementation, it also presents a valuable opportunity to learn lessons and identify possibilities for future reform.

### **On-going concerns at Kamchay**

Of immediate concern in the Kamchay case is the continuing lack of support for those whose livelihoods have been impacted by the project. In particular, many of those who have suffered drastically reduced incomes due to the loss of access to NTFPs are in dire need of assistance, and in many cases they have no other options available to compensate for the loss of income generation they have experienced. The discussions regarding support for a community forest arrangement are positive but remain informal and no commitments have yet been made. Likewise, for those who rely on tourism to supplement their incomes, the suggestion that funds will be committed to the development of the tourist sector are promising, but again these plans lack detail and clear commitments. If an adequate process of consultation and EIA had been conducted and provisions made for those whose livelihoods were likely to suffer, these issues could have been resolved prior to project implementation. Unfortunately this was not the case, but it is not too late for the company and the Cambodian Government to re-engage with local

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<sup>128</sup> Phnom Penh Post, *Railway project in ADB's sights*, 6 September 2011; The Cambodia Daily, *Railway families to petition Asian Development Bank for help*, 15 November 2011.

communities and develop livelihood support and restoration programs that ensure the long-term well-being of those living around the project area. Until the final approved EIA is published, it is not clear if such livelihood restoration projects are planned and if they have adequate funding.

In terms of environmental impacts, it is predicted that the effects on water quality and quantity will be resolved after the construction phase is complete. However, as construction comes to an end and operations begin, impacts on the river's hydrology may become apparent. It is also possible that water quality will be impacted again during operation, this time due to decaying plant matter in the reservoir. Impacts on fisheries and local ecology in the area may also become apparent over time, and it is crucial that robust mechanisms are in place to monitor future environmental impacts. Publishing the final EIA and EMP will be helpful for civil society groups and potentially affected people to assess what measures are likely to be put in place in order to monitor future impacts. It will also be important to establish how these activities are to be funded and who is responsible for their implementation. Transparency could be improved by establishing a monitoring system that includes both local people and members of civil society, as well as local authorities.

### **The Cambodian Government**

It cannot be disputed that lack of access to electricity in Cambodia is a serious issue. Unreliable and expensive electricity supplies put daily constraints on the lives of many Cambodians, limit opportunities for small and medium sized businesses, and also pose a considerable disincentive to potential investors. There is on-going debate as to whether large-scale hydropower is the best option for countries such as Cambodia, and there are various other potential options available to the Cambodian Government, some of which it is already exploring. This includes increasing electricity imports, developing coal powered stations, building small-scale hydropower projects, and investing in clean energy such as solar and other renewables. Nevertheless, Cambodia has already committed to invest in several large-scale hydropower projects, the first of which is the Kamchay dam. This case can provide important lessons that can hopefully inform the Cambodian Government's oversight of the implementation of other on-going and future projects.

A key recommendation that comes out of this research is that in order to provide adequate environmental and social safeguards and ensure the sustainability of such projects, serious reform needs to take place regarding the processes of consultation and impact assessment. Developing government capacities and raising awareness of the importance of adequate EIAs is crucial to the success of such reform. The existing legal framework needs to be strengthened and compliance ensured. The current perception that the EIA is simply a "box-ticking exercise" needs to be replaced by recognition of the fact that a quality EIA is a key element of the design process and project approval. Not only do EIAs need to be conducted in advance, and with adequate public consultation, they need to consider social impacts more broadly, and take into consideration non-material losses, such as loss of forest access, and mitigate appropriately.

Although construction of the Kamchay project is now complete, the project will remain active for many years so there are still opportunities for the Cambodian Government to widen and improve the process of public consultation and participation. As stated numerous times throughout the paper, a complete and approved EMP has yet to be made public, and this should be remedied as

soon as possible. As mitigation measures such as livelihood restoration and environmental monitoring are of crucial importance to local communities, the government could pre-empt future harm and subsequent conflicts by re-opening consultation with local communities to explain what mitigation measures will be put in place, how they will be monitored and how they will benefit and protect affected people.

### **China-Exim Bank and Sinohydro**

As both *China-Exim* and *Sinohydro* are likely to engage further in large scale development projects in Cambodia, they too can take lessons from the Kamchay case. The problems highlighted by the flawed EIA process illustrate the need for strong institutional safeguards to fill in the gaps where local regulations and enforcement are weak. Hopefully this will provide impetus for *China-Exim* to insist on implementation of its existing guidelines and the requirement that EIAs be conducted in advance and with open public participation. *China-Exim* can also improve the implementation of future projects by continuing the positive steps already taken in adopting its basic guidelines, and develop and bring them closer to the standards followed by other lenders.

In developing its own guidelines, policies and safeguards of international financial institutions such as the World Bank, International Finance Corporation and the Asian Development Bank can provide valuable guidance. The findings of the World Commission on Dams (WCD) could also inform the development of any future standards for financing hydropower projects. As stated in an article by two WCD panel members:

While most official export credits are guaranteed by governments, it is still prudent for export credit agencies to invest their funds in the best projects possible, or at a minimum in economically and financially viable projects that will not adversely affect longer-term sustainable human development in the host countries. Even at later stages of project planning when export credit agencies are asked to invest, the WCD's recommendations will help to ensure the economic benefits and viability of the projects by improving compliance, reducing risks, reducing delays and cost overruns due to opposition, and improving benefit streams and performance. By integrating the WCD approach into their policies, export credit agencies can expect to finance higher quality projects, avoid conflict, controversy and delays from public rejection of projects, and contribute to sustainable economic development.<sup>129</sup>

The shortcomings in implementation of environmental and social safeguards in the Kamchay case could be in part remedied by *Sinohydro* continuing to develop company sustainability policies and expanding its engagement with civil society organizations. Under the BOT agreement for Kamchay, the company will operate the project for the next forty years, and therefore a good relationship with local communities is crucial. *Sinohydro* has suggested it has plans to develop future projects in Cambodia, and it is in the best interests of the company to show that it can not only generate private profit and contribute to development on the national level, but can also play

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<sup>129</sup> Moore, D. and Scudder, T., *The World Commission on Dams Framework: Solutions for Managing Dams, Water and Energy*, in Bosshard, P. (ed), *New Financiers and the Environment: Ten Perspectives on How Financial Institutions Can Protect the Environment*. International Rivers, May 2008 (p21-24).



a valuable role in development at the local level. This commitment can be illustrated most immediately in the Kamchay case by re-engaging with local communities and civil society and making solid commitments to follow through on mitigation measures and livelihood restoration programs.

A common criticism of Chinese companies working abroad is that they do not engage well with local people or local civil society. Many of the people interviewed for this paper raised this concern, and it is echoed in numerous articles and commentaries on Chinese investment around the world. There are various reasons for this lack of engagement, not least of which is the language barrier. A different subsidiary of *Sinohydro* will take over the project when construction ends, which could present a new opportunity for the company to reach out to local people and civil society and renew its commitments to engage over the coming years.

### **The Chinese Government**

The White Paper on China's Foreign Aid published in 2011 states that "China has a long way to go in providing foreign aid." This is no doubt true, as China has only in the last decade begun to deliver aid on a scale comparable to already established donors. The White Paper concludes by stating that the Chinese government "will make efforts to optimize the country's foreign aid structure, improve the quality of foreign aid, further increase recipient countries' capacity in independent development, and improve the pertinence and effectiveness of foreign aid."<sup>130</sup> Increased oversight over project implementation including more comprehensive environmental and social safeguards will make a great contribution to achieving these commendable objectives. The same goes for foreign investments approved with reference to China's "going-out" strategy. Rather than being an imposition on the domestic affairs of the recipients of aid or investment, safeguards could offer protections for all parties. Projects are more likely to be sustainable in the long run and less likely to impact negatively on the environment and local people if they are adequately assessed for feasibility and impacts, well designed, and properly monitored. This in turn will enhance China's image as a responsible donor and strong development partner and help to reduce the growing mistrust around Chinese aid and investment.

One of the most frustrating issues for civil society representatives interviewed during the course of this research was the lack of access to accurate and up to date information. A number of researchers and NGO staff expressed disappointment that they could get little information from the Chinese Embassy in Phnom Penh, and written communications and requests for meetings generally went unanswered. Increased transparency begins with sharing basic information, which if authorized to do so, the Embassy in Phnom Penh could facilitate.

There have been signs over recent years that China is prepared to be more open about its engagement in Cambodia, at least as far as aid pledges are concerned. Until recently, China was reluctant to join donor-organized forums, preferring instead to deal with the Cambodian Government one-on-one. However, in 2007, China began sharing details of its aid pledges to Cambodia, which can be viewed in the CDC's Aid Effectiveness reports and on their website.

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<sup>130</sup> Information Office of the State Council, *White Paper on China's Foreign Aid*, April 2011 (conclusion).

Additionally, China started to send representatives to the Cambodia Development Cooperation Forums (CDCF), which are held approximately every 18 months and are the official donor forum for indicating aid pledges for future years and reflecting on progress during the previous period. In 2010, the Chinese representatives included the Ambassador and the Economic and Commercial Counsellor. Although China does not actively participate in the meetings, it does indicate how much aid will be pledged to Cambodia for the coming period.<sup>131</sup>

## Civil society engagement

During the course of this research, it became apparent that despite the commitment and hard-work of several organizations who have been active on the Kamchay case, civil society has been more effective in helping to remedy disputes as and when they emerge, rather than influencing the implementation of the project. Much of this is a result of capacity issues, and the only two organizations that work in the project area have small offices and a low number of staff. The national NGOs working on the case are stretched between many cases and working on multiple issues, as well as being subject to capacity issues in terms of financial, technical and human resources.

The lack of access to reliable and up to date information also poses a significant barrier to civil society engagement. This has been a recurring trend throughout the implementation of the project. As can be seen in the consultation process detailed above, several key opportunities for public participation were missed. The initial EIA was conducted with no input from local organizations and there were no open public consultations, which would have been an ideal venue to share information and seek input. The full EIA followed a similar process and civil society was again left out of any meaningful consultation process. NGOs sought to arrange meetings with the EIA company and with *Sinohydro* to discuss the project, but when these requests were rejected or left unanswered, these groups were left with few other opportunities to engage, and instead found themselves reacting to issues as and when they emerged. For example, local human rights organizations dealt with complaints from affected people as and when they were submitted, and NGO Forum members joined two national level workshops when invited.

Local groups could benefit from utilizing existing links with regional groups in order to learn more from global experiences, and find out how other organizations have overcome such difficulties in their own countries. Additionally, building links with Chinese civil society could also help local groups to understand processes on the Chinese side, and could potentially facilitate a link between local groups and Chinese developers. Partners could also assist local groups in accessing and translating any future guidelines and policies of developers and financiers such as *China-Exim* and *Sinohydro*, which could potentially form a strong basis for engagement or advocacy in the future.

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<sup>131</sup> Griffiths, K. *China and Western-Led Aid Structures in Cambodia*, 1 July 2010.

<http://www.chinaafricarealist.com/2010/07/china-and-western-led-aid-structures-in.html> (accessed November 2011).

## Conclusion

In recent years the relationship between Cambodia and China has strengthened considerably, and the amounts of development assistance and direct investment committed by China have continued to increase. The Cambodian Prime Minister has praised China's ability to weather the financial crisis and economic downturn gripping most of the world, stating that while other countries have struggled, "the People's Republic of China has continued to make non-stop investment in Cambodia."<sup>132</sup> Prime Minister Hun Sen has characterized China as a partner that delivers on its promises and does so without pressuring Cambodia. In a 2008 speech the Prime Minister stated "[w]hat I can say is that China says the least but does the most."<sup>133</sup> He has repeated this suggestion a number of times, such as in 2009:

China has a way of doing things. They talk less but do more. Before anyone knows it we get bridges, roads, etc. They are all without conditions... I have had a good chance to be working with three generations of leaders of China... They all speak very simple language. They said whatever projects will be up to the Cambodians as long as they guarantee economic gain and reduce poverty. No conditions are placed. China respects Cambodian decisions. This is the special characteristic of the Chinese. Judging on this manner I have told the Chinese leaders that Chinese assistance not only helps Cambodia develop its socio-economic development but also Cambodian political independence as well. It is a great value and I appreciate what the Chinese have done for the poor and developing countries in Asia, Africa and Latin America.<sup>134</sup>

However, one fact that cannot be ignored is that while the Cambodian Government's relationship with China is developing, communities, civil society and local media are becoming increasingly wary about the current development trends and increase of Chinese influence in Cambodia. Of course, this is due to various factors, including limited access to reliable and accurate information, inadequate consultation, and a general distrust that has built up over many years of complex relationships between the two countries. Projects such as the Kamchay dam are lauded by both governments as being symbolic of the strengthening relations between the two countries and necessary for the broader development of Cambodia. But, at the same time many affected people feel that their rights are being steam-rolled in order to make such developments possible. As more mega-projects are agreed and implemented, without adequate safeguards in place to protect the rights of affected people and the environment, this situation will continue and recur.

Whether it is accurate or not, there is a growing perception in some quarters that Chinese authorities are willing to turn a blind-eye rather than obstruct investment opportunities. It can be seen that China is taking note of this bad publicity, not to mention the implications and potential legacy that the high number of large-scale developments could leave behind if not properly

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<sup>132</sup> Cambodia New Vision website, *Selected Comments at the Groundbreaking of the Construction of Russei Chhrum Hydropower in the District of Mondul Seima, Koh Kong Province*, 28 December 2010. Viewable at: [http://www.cnv.org.kh/2010\\_releases/28dec10\\_russeiirum-hydro-power\\_comments.html](http://www.cnv.org.kh/2010_releases/28dec10_russeiirum-hydro-power_comments.html) (accessed November 2011).

<sup>133</sup> Cambodia New Vision Bulletin, Issue 121, February 2008. Viewable at: [http://www.cnv.org.kh/cnv\\_html\\_pdf/cnv\\_121\\_feb\\_08.pdf](http://www.cnv.org.kh/cnv_html_pdf/cnv_121_feb_08.pdf) (accessed November 2011).

<sup>134</sup> Cambodia New Vision Bulletin, Issue 139, September 2009. Viewable at: [http://www.cnv.org.kh/cnv\\_html\\_pdf/cnv\\_139\\_sep\\_09.pdf](http://www.cnv.org.kh/cnv_html_pdf/cnv_139_sep_09.pdf) (accessed November 2011).

implemented. China is also beginning to embrace concepts such as corporate social responsibility that until recently were seen as Western constructs incompatible with Chinese policy. There also appears to be a realization that unsustainable practices in foreign direct investment and overseas development assistance pose a threat to China's own interests, as well as the interests of those directly impacted. Development projects that are ill-conceived, badly planned or improperly monitored not only pose risks to the environment and communities in host-countries, they also jeopardize financial viability, generate bad-publicity, and could ultimately be harmful to diplomatic relations between China and the recipients of its aid and investment.

Although much of this case summary focuses on problems with the implementation of the Kamchay project, it is not intended to suggest that the project is necessarily a bad project or a "lost cause". Much can still be remedied by a renewed commitment to remedy the harms caused to local people's livelihoods and to diligently monitor the environmental impacts of the dam once it has been commissioned. Committing adequate funds and assigning responsibilities for mitigation programs, and involving local people and civil society in the implementation of these programs could provide a positive model for the implementation of future hydropower projects in Cambodia and other projects funded by the Chinese Government. Lessons can also be learned from the Kamchay case by other projects that are yet to be approved, or are in the early stages of implementation.

It is true that China does not attach safeguards to its lending in the same manner as the longer established multi- and bi-lateral donors do. This has become a cause for concern amongst some observers who fear a "race to the bottom" as donors weaken their standards in a bid to maintain influence in the development sector. Others have dismissed such fears as being premature, and point to the shift in recent years in the Chinese approach to its lending. There are still numerous examples of China funding projects that traditional donors would be unlikely to approach due to their social and environmental impacts and other risks, but there are also examples of Chinese companies and the *China-Exim Bank* pulling out of, or avoiding projects that they perceive as being risky due to social and environmental impacts. There have been positive developments in recent years on the Chinese side that indicate that social and environmental safeguards are slowly being strengthened. This change is indicated by the State Council's calls for companies implementing projects overseas to be socially responsible and respect the rights of local people and natural resources, as well as SASAC's guidelines for state-owned enterprises to implement and report on their CSR practices. *China-Exim* has developed improved guidelines for its lending that include requirements for the conduct of EIA, public consultation and respect for local peoples rights, which although brief, indicate a positive shift. *Sinohydro* is also close to adopting its own sustainability framework for which it invited the comments of civil society.

It must of course be emphasized that such policies and safeguards are not worth the paper they are written on if they go unimplemented. The development and adoption of safeguards needs to be accompanied by training of staff in the application of safeguards, and establishing dedicated teams to monitor their implementation. Environmental and social consideration must be built into decision making processes and planning from the initial stages, or conducting EIAs and public consultations will remain little more than an administrative exercise. Improved transparency and engagement with local people and civil society, and responsiveness to their concerns will help to

avoid and remedy problems before they emerge, and will in turn help to improve the image of China's overseas aid and investments.

Although gaps still remain in the legislative and policy framework for management of hydropower in Cambodia, existing laws provide important safeguards to protect the rights of affected people and the natural environment until such time as a more comprehensive framework is developed. However, due to various reasons, including lack of capacity and expertise, inadequate human and financial resources, and in some cases a lack of political will, implementation of these laws is often inconsistent. In many cases monitoring and enforcement is non-existent. Where local regulations are lacking, or enforcement is weak, the safeguards and policies of investors, developers and financiers have the potential to provide protection for both affected people and the environment. China has traditionally been uncomfortable with imposing conditions on its development assistance and foreign investment, preferring instead to rely on local systems and regulations. However, there are signs that this is beginning to change, although it remains to be seen how much further the on-going reforms will go, and what their practical implementation will look like. It is clear, however, that if China is committed to a long-term presence in Cambodia, it must enhance the environmental and social safeguards applying to its projects and commit to their implementation. Only then can China ensure that its projects are sustainable in the long-term and thus able to make a meaningful contribution to poverty reduction and development in Cambodia.

### Annex: Summary of social and environmental safeguards contained in Cambodian law

| Safeguards   | Area        | Relevant article(s)  |
|--|-------------|--|
| <b>Constitution of the Kingdom of Cambodia</b>                               | General     | <p>Cambodia's supreme law. States that all Cambodian citizens have the right to participate in the political, economic, social and cultural life of the nation (Art 35). Recognizes the right to private ownership of land (Art 44), and also asserts that the State shall protect the environment and balance of natural resources (Art 59).</p> <p>Recognizes that Cambodia will "recognize and respect human rights as stipulated in the United Nations Charter, the Universal Declaration of Human rights, the covenants and conventions related to human rights, women's and children's rights." (Art 31)</p>   |
| <b>Law on Environmental Protection and Natural Resource Management, 1996</b> | Environment | Establishes general requirements for EIA (Art 6 & 7), also provides for public participation and access to information, however, states that sub-decree is required to elaborate of the process (Art 16-18).   |
| <b>Sub-decree on Environmental Impact Assessments, 1999</b>                  | Environment | <p>Lists the types of projects that require an EIA (Annex). All projects listed in the annex to the sub-decree must conduct an Initial Environmental Impact Assessment (Art 6). A full scale EIA should be conducted for projects deemed to have a serious impact on natural resources, ecosystems, health or public welfare (Art 8).</p> <p>States that during the EIA process, public participation should be encouraged and taken into account in the process of project approval (Art 1). Asserts that the Ministry of Environment (MoE) has the responsibility to evaluate and review EIA reports in collaboration with other concerned ministries. The MoE is also responsible to follow up, monitor, and take appropriate measures to ensure compliance with the Environmental Management Plan (EMP) during project construction, implementation, and closure of project (Art 3).</p> |



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|---|-------------|--|
| <b>Sub-decree on Solid Waste Management, 1999</b><br><b>Sub-decree on Water Pollution Control, 1999</b><br><b>Sub-decree on Air Pollution Control and Noise Disturbance, 2000</b> | Environment | Sub-decrees set out restrictions on various types of pollution, procedures for inspection and monitoring, and penalties for violations.  |
| <b>Royal Decree on the Protection of Natural Areas, 1993</b>  | Environment | First established Cambodia's protected areas (Art 2), and makes the management and protection of these areas the responsibility of the MoE (Art 1).  |
| <b>Protected Areas Law, 2008</b>  | Environment | Sets the regime for management of Cambodia's protected areas. Divides protected areas into 4 types of zone: core, conservation, sustainable use, and community (Art 4), and stipulates that development activities may only be conducted in certain zones. Prohibits all kinds of clearance and development in the <i>core</i> and <i>conservation</i> zones (Art 36). Also states that any developments within or adjacent to protected areas require EIA (Art 44).   |
| <b>Forestry Law, 2002</b>   | Forests     | <p>Defines the framework for management, harvesting, use, development and conservation of Cambodia's forests. Aims to ensure the sustainable management of forests and their social, economic and environmental benefits, including conservation of biological diversity and cultural heritage (Art 1). States that the public should be able to participate in any government decision that has the potential for heavy impact on citizens, livelihoods of local communities and forest resources of the Kingdom of Cambodia. Additionally, All activities in forested areas likely to have adverse impact on society and environment should be subject to an EIA, and the EIA report should be made available for public comment (Art 4).</p> <p>Recognizes traditional user rights of those who collect non-timber forest products from the forests for the purpose of traditional customs, beliefs, religions and livelihood (Art 40).</p> |

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| <b>Law on Water Resource Management, 2007</b>  | Water resources          | Aims to foster effective and sustainable management of the water resources to attain socio-economic development and the welfare of the people (Art 1). States that any non-domestic diversion or exploitation of water resources requires a water-use license (Art 11).   |
| <b>Land Law, 2001</b>  | Land                     | <p>Protects the right to private ownership of land and states that no one should be deprived of ownership unless in the public interest, and only after adequate compensation is paid in advance (Art 4 &amp; 5). Protects the rights of legal possessors still awaiting receipt of full land title (Chapter 4). States that any interference with a person's peaceful occupation of land prior to ownership being formally assessed is a criminal offence (Art 248).</p> <p>Defines indigenous lands as those areas where communities reside and practice traditional agriculture, including shifting agriculture (Art 25). Recognises the right of indigenous communities to collective ownership of these lands (Art 26). States that prior to communities being legally recognized, no one may interfere with the management of their lands (Art 23).</p> |
| <b>Sub-decree on Procedures of Registration of Lands of Indigenous Communities, 2009</b> | Land / Indigenous people | Sets the legal procedure for formally demarcating and registering indigenous lands and issuing collective land titles (Art 1). Includes provisions allowing the registration of areas of sacred forest and burial grounds (Art 6).  |
| <b>Law on Expropriation, 2009</b>  | Land                     | Lists the types of project that may be classed as "public interest" projects, for which expropriation may be legitimate (Art 5). Sets out general principles (Chapter 2), mechanisms (Chapter 3) and procedures for expropriation. This includes compensation (Chapter 4) and dispute resolution process (Chapter 6).   |
| <b>Labour Law, 1997</b>  | Labour                   | Sets the rules for employment and treatment of workers in Cambodia. Includes provisions for human resource policies, hiring and termination of workers, wages, work hours and overtime, leave, general working conditions, and health and safety. Also allows for establishment of trade unions and the right to strike.  |