

# The Xayaburi Dam: Threatening Food Security in the Mekong



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# **The Xayaburi Dam: Threatening Food Security in the Mekong**

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Construction activities at Xayaburi Dam Site, June 2012

## 1. Summary

A water conflict has emerged in Southeast Asia over the proposed 1,285 MW Xayaburi Hydropower Project in Laos.<sup>1</sup> The project is the first of eleven dams proposed for the transboundary Lower Mekong River. It is also the first to undergo a joint decision-making process by the four governments of the Mekong River Commission (MRC)—Cambodia, Laos, Thailand, and Vietnam.

The process has not been a smooth one. In 2010, the Lao government proposed to build the Xayaburi Dam and sell the electricity to Thailand, but Cambodia and Vietnam raised concerns about the dam's downstream impacts. In April 2011, the four governments met to discuss the project but could not reach agreement and elevated the decision to the Ministerial level. While these negotiations were underway, Laos began building roads and worker camps at the dam site, claiming that these activities were merely preparatory work. In December 2011, ministers from the four governments met and agreed to conduct further studies on the impacts of the eleven proposed Mekong dams, including the Xayaburi Dam. Between January and June 2012, however, without notifying other MRC governments the Lao government expanded construction activities at the dam site, including digging in the river, resettling a village, and building dikes and other structures at the dam site.<sup>2</sup>

When an International Rivers investigation revealed in June that construction was well underway, the Lao government began an advertising campaign in the state-run *Vientiane Times* describing the merits of the project.<sup>3</sup> Laos called the project “the most modern and transparent dam ever built,”<sup>4</sup> and claimed that construction of the dam would not cause environmental and social impacts downstream. Although the four MRC governments have not reached a joint decision, Laos announced unambiguously in September 2012 that construction on the dam would proceed.<sup>5</sup> Thailand has remained largely silent throughout the dispute, despite its commitment to purchase 95% of the dam's electricity and the central role of Thai companies in developing and

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<sup>1</sup> For more background on the Xayaburi Dam, please visit International Rivers' website, <http://www.internationalrivers.org/campaigns/xayaburi-dam>.

<sup>2</sup> For more details about the current status of construction, see: <http://www.internationalrivers.org/blogs/267/how-the-next-12-months-of-xayaburi-dam-construction-will-affect-the-mekong-river>.

<sup>3</sup> For a summary of events in June and July, please visit <http://www.internationalrivers.org/blogs/267/testing-the-waters-laos-pushes-xayaburi-dam-to-critical-point>.

<sup>4</sup> Lao PDR government, “Dam a natural blessing in Laos,” *Vientiane Times*, 20 August 2012.

<sup>5</sup> Lao PDR government, “Laos clarifies Xayaboury dam development,” *Vientiane Times*, 6 September 2012.

financing the project. Cambodia and Vietnam continue to insist that more impact studies are needed.

The conflict focuses largely on the impact that the Xayaburi Dam and other Mekong dams will have on food security.<sup>6</sup> Over 60 million people live in the Lower Mekong Basin, and 80% depend on the river system for their food and livelihoods.<sup>7</sup> Scientists have concluded that the



project will harm fisheries, block the flow of sediments and nutrients downstream, and flood the homes and agricultural lands of hundreds of thousands of people.

If all eleven dams are built, the impacts would be magnified. The MRC's 2010 Strategic Environmental Assessment raised concerns about the eleven dams' impacts on fisheries and agriculture.<sup>8</sup> The dams would flood 54% of the gardens along the banks of the Lower Mekong River, many of them owned by subsistence farmers. Over 106,000 people would lose their

homes and require resettlement.<sup>9</sup> Nutrients and sediments would be blocked from reaching the Mekong Delta downstream, one of the region's most productive agricultural areas. Dams would block fish migrations and change habitats, affecting the world's most productive inland fishery.

Even in the early stages of construction at the Xayaburi Dam site, threats to food security are emerging. On 14-18 June 2012, International Rivers traveled to Laos and interviewed 77 households in fifteen of the villages affected by the Xayaburi project (see [Annex 1](#)).<sup>10</sup> One village has already been resettled. Within the next few years, at least 2,100 people will be resettled. If the dam is completed and the impoundment area is filled,<sup>11</sup> an estimated 200,000 more people will have their agricultural land flooded and fish catch reduced. The project's developers, including Thai company Ch. Karnchang and the Lao government, have promised to build new resettlement homes for some villagers, compensate people for lost trees and gardens,

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<sup>6</sup> At the 1996 World Food Summit, the international community defined food security as existing "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life." Food security has three components: (1) *Food availability*: sufficient quantities of food are available on a consistent basis; (2) *Food access*: sufficient resources to obtain appropriate foods for a nutritious diet; and (3) *Food use*: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation. For more information, please visit <http://www.who.int/trade/glossary/story028/en>.

<sup>7</sup> WWF, "Mekong dams could rob millions of their primary protein source," 27 Aug. 2012, <http://cambodia.panda.org/?206032/Mekong-dams-could-rob-millions-of-their-primary-protein-source>.

<sup>8</sup> International Centre for Environmental Management 2010, "Strategic Environmental Assessment of Hydropower on the Mekong Mainstream" (prepared for the Mekong River Commission), <http://www.mrcmekong.org/assets/Publications/Consultations/SEA-Hydropower/SEA-Main-Final-Report.pdf> [hereinafter "MRC Strategic Environmental Assessment"].

<sup>9</sup> MRC Strategic Environmental Assessment, p. 18.

<sup>10</sup> Box 1 lists the villages that we visited, and Annex 1 summarizes the concerns that people raised in each village.

<sup>11</sup> The impoundment area is the portion of the river upstream of the dam where water will be blocked from flowing naturally. The Xayaburi Dam will store water for up to five days, but is still being called a "run-of-river" dam by the project developers.

and provide new job training. As this report demonstrates, however, these efforts have not been sufficient. Food insecurity is growing near the Xayaburi Dam site, as communities lose access to the Mekong River resources on which they depend. Key findings of this report include:

**Resettlement activities at the Xayaburi Dam site have violated Lao law.** The first village was resettled in January 2012 and the livelihoods of many people have still not been restored. Seven other villages are likely to be affected by 2013 or 2014—five villages will be resettled and merged with two existing villages where land is scarce. Compensation is not being provided for lost fisheries, gold panning, and other uses of natural resources, as required by Lao law. All together, Thai builder Ch. Karnchang has violated at least 22 standards in Laos’ 2005 resettlement and compensation decree, and only partially complied with eight standards (see [Annex 2](#)). The Lao government has also committed to follow the World Bank’s resettlement standards,<sup>12</sup> but a closer look reveals numerous violations of this standard as well (see [Annex 3](#)).

**Laos has not fulfilled its commitment to study the project’s transboundary impacts.** The impacts of the dam will extend into Thailand, Cambodia, and Vietnam. Both Cambodia and Vietnam have called for further studies on the dams’ impacts before making any decisions on whether to proceed. Laos is required under the 1995 Mekong Agreement’s procedures and international law to meet these requests, but has not done so (see [Annex 4](#)). Instead, Laos has relied exclusively on two consultants’ desk studies that do not assess transboundary impacts.<sup>13</sup>

**The project developers have not set aside adequate time to resolve the Xayaburi Dam’s food security concerns.** Despite the conflict, construction continues on schedule. The project developer plans to resettle five more villages within the next year and complete construction on the project’s “coffer dam” by May 2013.<sup>14</sup> These activities will adversely impact food security.

**No solutions have been found to fully mitigate the Xayaburi Dam’s impacts.** The project developers have not fully studied the food security risks, but have guaranteed that their proposed mitigation measures will work.<sup>15</sup> In contrast, scientists at the MRC Secretariat, International Centre for Environmental Management, and WWF have concluded that no mitigation solutions have been found to fully replace the food security that will be lost by building the Mekong dams.

**There is need for an immediate stop to all construction and relocation activities.** Even in the early stages of construction, the Xayaburi Dam illustrates the food security challenges that will arise from building large dams on the Lower Mekong River. Given the risks involved, it is urgent that the Xayaburi Dam builders stop all relocation activities and delay further construction, so that adequate time can be set aside to study the dam’s impacts in more depth. Only in this way can the four MRC governments proceed towards an informed, mutually agreeable solution.

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<sup>12</sup> On 16-17 July 2012, Laos’ Deputy Minister of Energy and Mines Viraphonh Viravong told a delegation of visiting diplomats that his government would use the World Bank’s resettlement standards in the Xayaburi project.

<sup>13</sup> For more analysis of the Pöyry and CNR studies, please visit:

<http://www.internationalrivers.org/blogs/267/p%C3%B6yry-responds-on-its-role-in-the-xayaburi-dam>.

<sup>14</sup> “Coffer dams” are temporary structures to divert the river from the construction site, so that the permanent dam can be built.

<sup>15</sup> The MRC identified numerous information gaps in the project’s environmental impact assessment. These gaps have remained largely unfilled. See MRC’s March 2011 technical review of the proposed Xayaburi Hydropower Project: <http://www.mrcmekong.org/assets/Publications/Reports/PC-Proj-Review-Report-Xaiyaburi-24-3-11.pdf>



## 2. Why is the Mekong River important for food security?

The Mekong River is an essential provider of food security in Southeast Asia, and not one that can easily be replaced. According to the MRC's 2010 Strategic Environmental Assessment (SEA), the Mekong River provides fish, fertile farmland, and income for millions of people. As the SEA reports, "In a river basin where 70% of communities are rural and inland fisheries are the most intensive in the world, food security and livelihoods are still largely based on river-dependent natural resources."<sup>16</sup>

The villages near the Xayaburi Dam site illustrate some of the ways that food security is linked to the Mekong River. The dam site is located in a mountainous region of northern Laos about 150 km south of the UNESCO World Heritage city of Luang Prabang. People living along the river in this region generally obtain food and income through a variety of sources, rather than relying on a single profession. In the fifteen villages that we visited, for example, people's food security largely depends on:

- **Fish:** Almost all households catch and eat fish every day, sometimes selling any extra fish that are caught. Fish is the major source of protein for these villages.
- **Riverbank gardens:** Almost all households have riverbank gardens where they grow fruits and vegetables to eat.
- **Rice fields:** Most households grow their own rice. Many fields are located up in the hills, but some are also located in low-lying areas along the river.
- **Livestock:** Many households raise water buffalo, chickens, pigs, and other livestock in the lands along the river.
- **Forest products:** Many households rely on the forests around the river to gather mushrooms and other food, as well as bamboo and wood to build homes and boats.
- **Income:** For several months each year, many families earn extra income by panning for gold in the river, collecting sand, and harvesting river plants such as *kai*. Some families grow cash crops like teak trees, corn and peanuts in the hills beside the river.

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<sup>16</sup> MRC Strategic Environmental Assessment, p. 16.



Resettlement site for Ban Houay Souy

### 3. Food security concerns in the first resettled village

The Xayaburi project developers relocated the first village, Ban Houay Souy, in January 2012. International Rivers visited the resettlement village six months later in June and documented several threats to the villagers' food security. An investigation in August by the *Bangkok Post* also documented threats to food security.<sup>17</sup>

Ban Houay Souy has around 65 households, or 333 people, and was previously located next to the Mekong River directly at the dam site. Construction activities have already cleared away the land, forests, and riverbank gardens that once existed near the village. The entire village was resettled to a location about seventeen kilometers from the Mekong River near Xayaboury town.<sup>18</sup> The *Bangkok Post* reported that villagers were only given a few days notice before the relocation took place. Now in their new homes, the villagers are still searching for livelihoods to replace what the river once provided.

In the previous location, people grew their own food in rice fields and riverbank gardens. They fished every day and gathered fruits, mushrooms, and timber products from the forests. Many people also earned extra income by panning for gold and growing corn and grain to sell.

**"We are concerned about our food and income here. At our old village we could make more, here we make less."**

– Villager from Ban Houay Souy

#### Loss of fisheries

Villagers have found it difficult to fish from their new location. They are located far from the Mekong River, and even those who go to fish are not able to do so every day. Villagers are able to catch some fish at a tributary about 30 minutes away, but fish catch is quite low. No compensation was provided for loss of fisheries, as required by Lao regulations.<sup>19</sup> A substitute for this critical source of protein has not yet been found.

<sup>17</sup> Bangkok Post, "Home is not where the heart is for Xayaburi locals," 5 August 2012,

<http://www.bangkokpost.com/news/investigation/306038/new-home-not-where-the-heart-is-for-xayaburi-locals>.

<sup>18</sup> The relocated village is now called Ban Na Tor Mai.

<sup>19</sup> According to the Implementing Regulation for the 2005 Lao Decree on Compensation and Resettlement, "[affected persons] whose livelihood is based on the service sector or in hunting, gathering or otherwise exploiting natural resources shall receive compensation in cash to the value of economic opportunity lost due to project intervention together with cash, materials, and training support for economic restoration in alternative sustainable livelihoods at levels better than or at least equivalent to the pre-Project situation." See Article 22, section 7.

## Loss of agricultural land

The company originally agreed to provide each resettled family with two hectares of agricultural land, comparable to the amount they owned in the old village. Later the company decided only to provide 0.75 hectares, which villagers do not consider to be sufficient to grow their food. As of June 2012, the company had still not provided the villagers with the new agricultural land. Plans were underway to clear land, but it was already too late to grow crops during the current year.



Villagers reported that gardens next to their houses are small and not as productive as those in the old village, because the water supply provided by the company contains heavy chemical treatment and few nutrients. Villagers must also pay for this water supply. In the old village, water from mountain streams was free and rich in nutrients. This has been an unexpected cost for people living at the resettlement site.

The villagers reported that they have not received compensation for their lost land and riverbank gardens. The company told them that they could still access their old lands. In fact, many have already lost their land due to construction activities at the dam site, and the villagers now live too far away to access remaining lands on a regular basis. Some have returned to live in their agricultural fields. Many have not, however, because the company does not allow villagers to freely use the dam site's access roads.

## Housing costs

As promised, the company built new houses for the resettled families. However, the new houses are smaller than many of the villagers' previous homes. The company provided only a second floor and left the ground floor un-built. Some villagers complained because the company used wet wood in the rush to complete the houses, which has now bent and caused cracks in the homes. Some villagers expressed concern that that wood in the houses is infested with insects. As of June 2012, most of the households had completed the ground floor at their own expense, using much of their compensation money from the resettlement process. For example, one family said they received 50 million kip (about US \$6,000) from the company in total compensation, but had to spend 30 million kip to finish building their house.



### **Cost of living exceeds the compensation provided?**

The villagers have found themselves with less compensation than they were promised, while also facing expenses that they did not expect. As of June 2012, many had not received compensation for lost land and riverbank gardens. Several people complained that the compensation they received for fruit and teak trees was unfair and did not account for the size or market value of the trees.

No compensation was provided for lost fisheries and gold panning. Many of the villagers previously earned extra income each year from fishing. At the resettlement site, the company promised to provide alternative sources of income. The company provided each family with a single source of income, such as duck raising, pig farming, or mushroom growing. Many families were responsible for buying their own supplies. In most cases this single source of income has not brought enough money into the household. As of June 2012, many people still did not have full-time jobs and spent most of their time idle. Some families had already sold the last of their animals and were already in debt.

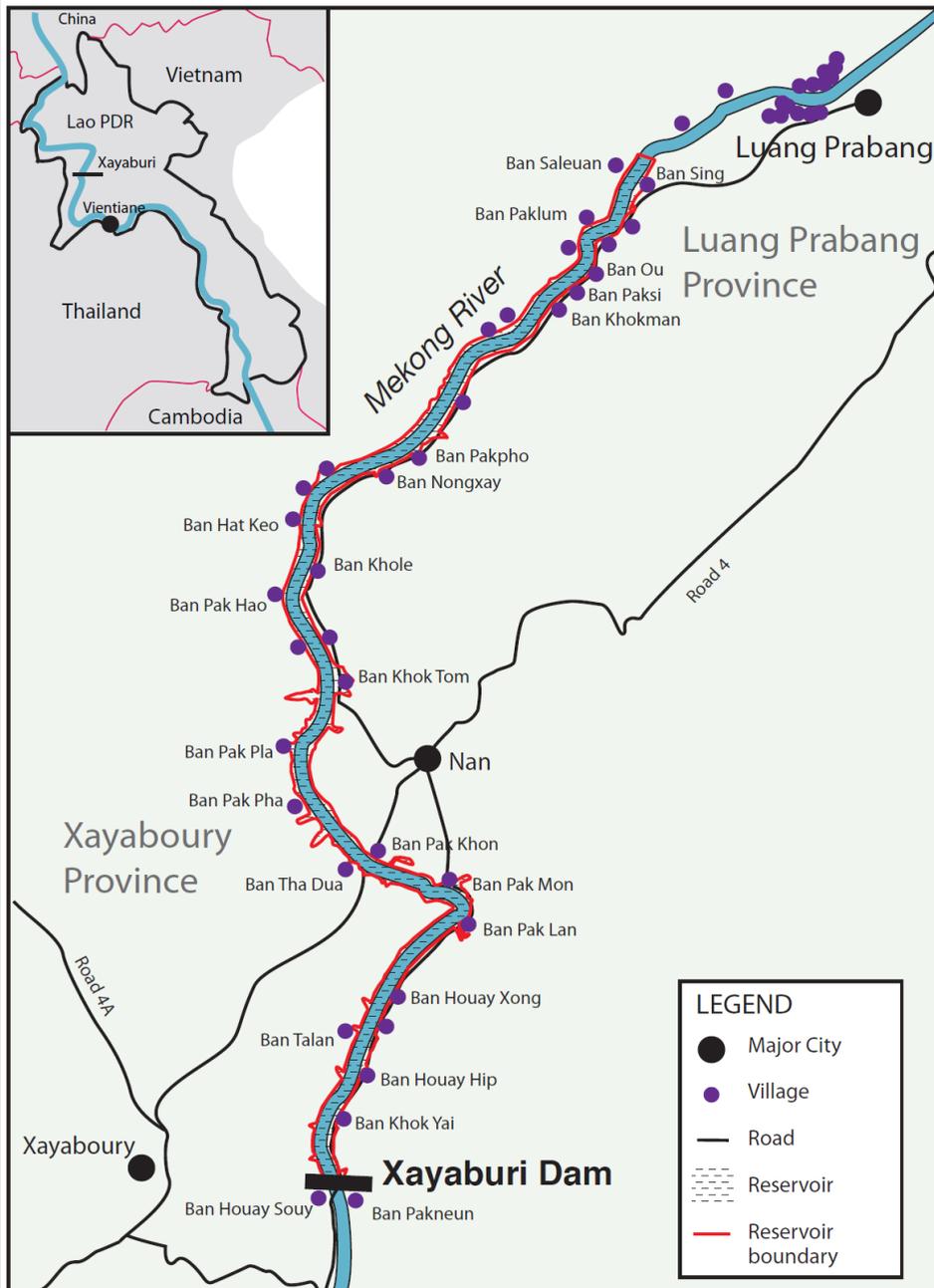
The company provides villagers with a monthly stipend of 120,000 kip (about US \$14) per person per month. Yet unexpected expenses have also raised the cost of living in the new village. In addition to the costs of completing their houses, villagers must pay for their own drinking water and also pay the costs to travel to the city market to buy and sell goods. The company promised to provide the first year of electricity for free, but changed its mind after the relocation and only provided one month for free. The villagers refused to pay the electricity bill. As of June 2012, they were still negotiating with the company for a better deal. In the old location, the villagers had access to inexpensive, renewable electricity through micro-generators on Mekong tributaries (see photo on the right of a micro-hydro system). The Mekong River basin provided many natural resources at no cost.



As a result, villagers have been placed into a cash-based economy without enough cash or resources to sustain a living. Lao law requires that the company fully restore the livelihoods of resettled persons to pre-project levels. None of the people who we interviewed felt that they were better off at the resettlement site.

### Box 1: Map of villages visited

On 14-18 June 2012, International Rivers interviewed 77 households in fifteen of the affected villages (listed from south to north): Houay Souy (*already resettled*); Pakneun; Khok Yai; Houay Hip; Houay Xong; Pak Lan; Pak Mon; Pak Khon; Khok Tom; Houay Khua (*marked but unlabeled on map*); Pak Hao; Vangsa / Pak Heng; Pak Pho; Pak Lum; and Saleuan.





#### 4. How the construction phase will impact food security

The Xayaburi Dam is scheduled to become operational by 2019. Even before this time, food insecurity is likely to increase if construction on the project continues. We can expect to see the following impacts during the next seven years if construction on the project proceeds.

##### Transboundary impacts

During project design, the Xayaburi developers only studied the impacts within ten kilometers downstream of the dam site. Yet many of the downstream impacts are likely to extend hundreds of kilometers into Thailand, Cambodia, and Vietnam. Since April 2011, the Cambodian and Vietnamese governments have asked for a transboundary impact assessment, but this request has not been met. In July 2012, the Lao government told a visiting delegation of foreign governments that there was no need for a transboundary impact assessment.<sup>20</sup>

**"We want to see development, but we are afraid this won't be development. We are local people, it's like a dog barking at an elephant. So our worries and concerns will not change anything."**

- Villager affected by the Xayaburi Dam

##### Impacts from resettlement

By 2013 or 2014, an estimated seven villages will be significantly affected by the Xayaburi project. The company plans to resettle five villages and merge them into two existing villages. Three villages will soon be moved to Houay Hip, and two villages will be moved to the Pak Mon. By the end of the construction phase, around 2,100 people will be resettled. Villagers were not given an opportunity to critique or even comment on the resettlement plans.

The resettlement will not only affect the villagers who are moved, but those who already live in the host community. Villagers in Houay Hip and Pak Mon are concerned that competition for food will increase, as land is scarce and a larger population will place greater strain on the surrounding forests and water resources. Both of the villages are located in steep, mountainous terrain where extra farmland is not readily available. The Xayaburi developers offered only limited compensation to people in both host villages. Several households are being removed from their land to make way for the resettlement sites. These households have not received compensation, replacement homes, or new land.

<sup>20</sup> See <http://www.internationalrivers.org/blogs/267/testing-the-waters-laos-pushes-xayaburi-dam-to-critical-point>.

## Impacts from flooding

In all of the villages visited, riverbank gardens, teak trees, and agricultural land will be flooded. In most villages, at least a few households living close to the river or tributaries will be flooded although the exact number remains unclear. The company has provided the villagers with mixed messages about what impacts to expect. The company has also required at least two village headmen to sign a statement that the company would not be responsible for any damage that occurs above 275 meters, the projected water



levels after the dam is built. All of this has led to confusion over who will need to move, what will be compensated, and whether people will receive enough compensation to restore their lives.

## Impacts on fisheries

Almost every household in the affected area fishes daily. Most villagers are not concerned about the dam's impacts on fisheries, however, because the company told them there would not be any impacts. In the past year, the company showed a video in many villages describing how its fish passage system will allow fish to travel freely past the dam, despite the fact that many scientists believe that the technology will not work and fish mortality will be high.<sup>21</sup> Villagers are under the impression that they can continue to fish in the Mekong as they do now once the dam is built.



## Loss of income

Although the villagers near the Xayaburi Dam site catch and grow most of their own food, they also earn income from other river-based sources. Many of these—panning for gold, harvesting river plants, collecting sand, and selling excess fish catch at markets—will be lost and not compensated, despite the requirements of Lao law. Rather, the company promised to provide new sources of income. Early indications at the Houay Souy resettlement site suggest that the

new income sources provided by the project developer will not be sufficient. Many villagers have sent representatives to visit Houay Souy and are concerned about the higher cost of living and the project company's record of broken promises.

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<sup>21</sup> Concerns with the use of fish passage technologies on the Lower Mekong River are documented in E. Baran 2010, *Mekong Fisheries and Mainstream Dams, Fisheries section of the MRC's 2010 Strategic Environmental Assessment*, [http://www.worldfishcenter.org/resource\\_centre/WF\\_2736.pdf](http://www.worldfishcenter.org/resource_centre/WF_2736.pdf).



## 5. Cumulative impacts of eleven Mekong Dams

The Xayaburi Dam is only the first of eleven proposed dams on the Lower Mekong River. If all of these dams are built, food insecurity will expand rapidly as millions of people lose access to natural resources that the Mekong River provides, such as fisheries and productive agricultural land. The Lower Mekong River provides food and livelihoods for around 60 million people. Over 29.6 million people live and work within fifteen kilometers of the river.<sup>22</sup>

### Significant impacts

The MRC's 2010 Strategic Environmental Assessment presented initial findings of what would happen if the eleven dams go forward.<sup>23</sup> The study warns of "serious and irreversible environmental damage." Fisheries worth an estimated US \$476 million/year would be lost, in addition to the coastal and delta fisheries in Vietnam that have not yet been studied. The dams would raise water levels, flooding 54% of riverbanks along the Mekong River. Over 106,000 people would lose their homes and require resettlement. Even those whose homes are not flooded would feel the impacts. The 2.1 million people who live within five kilometers of the river are at the highest risk. Agricultural land worth an estimated US \$25.1 million/year would be flooded, with the subsistence-level communities bearing much of the loss. The dams would also block sediments and nutrients from flowing downstream, resulting in further losses in land and agricultural productivity.

### Effective alternatives may not exist

The SEA concluded that mitigation measures—such as reservoir fisheries, fish passages, and aquaculture—would only be able to partially replace these losses.<sup>24</sup> Poor families would face resettlement, loss of land, and other impacts as soon as construction begins. Loss of fisheries would lead to declines in nutritional health, especially in Cambodia and Laos where up to 80% of the national protein supply would be at risk.<sup>25</sup> Rural poverty could then spill over into urban areas.

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<sup>22</sup> MRC Strategic Environmental Assessment, p. 18.

<sup>23</sup> MRC Strategic Environmental Assessment, pp. 13-18.

<sup>24</sup> See also, the MRC's March 2011 technical review of the proposed Xayaburi Hydropower Project, which reaches similar conclusions for the Xayaburi Dam project.

<sup>25</sup> Baran 2010, p. 20, [http://www.worldfishcenter.org/resource\\_centre/WF\\_2736.pdf](http://www.worldfishcenter.org/resource_centre/WF_2736.pdf).

An August 2012 study by WWF and Australian National University examined the fisheries impacts of the proposed dams and concluded that “proposed dam construction in the Lower Mekong Basin will considerably reduce fish catch and place heightened demands on the resources necessary to replace lost protein and calories.”<sup>26</sup> The study noted that finding additional land and water to raise livestock to replace the lost fisheries would not be easy: “Shifting the food security of 12 million households from heavy reliance on aquatic protein to a more rainfed, land-based economy has obvious and significant challenges.”<sup>27</sup>



As the authors of the study explained: “Policymakers in the region need to ask themselves where they are going to find this additional land and water. The Mekong demonstrates the links between water, food and energy. If governments put the emphasis on energy, there are very real consequences for food and water—and therefore people.”<sup>28</sup>

### Laos will also feel the impacts

Laos plans to build nine dams on the Mekong River, which will not only affect people living in other countries but its own citizens as well. An estimated 3.4 million Lao citizens—over half of the national population—live within fifteen kilometers of the Mekong River.<sup>29</sup> This includes some urban areas such as Vientiane, but numerous rural villages as well. As the MRC noted in its March 2011 review of the Xayaburi project, “Government capacity to reach the poor is constrained by resource limitations and no real safety nets exist. In this context, rural self-sufficiency is a critical dimension of resilience to change. Households along the mainstream Mekong are in many areas able to combine crop production and livestock rearing with fishing and the collection of other aquatic animals...and non-timber forest products.”<sup>30</sup>

If all nine dams are built, the livelihoods of more than 1.8 million people in Laos would be threatened.<sup>31</sup> Other projects are planned on the Mekong’s tributaries, as well.<sup>32</sup> The Lao government has not conducted any assessment of the cumulative impacts of these projects. Although the Lao government has identified food security as a national development priority, its recent decisions around the Mekong dams are at odds with this goal.

<sup>26</sup> Orr et al. 2012, “Dams on the Mekong River: Lost fish protein and the implications for land and water resources,” Global Environmental Change, <http://cambodia.panda.org/?206032/Mekong-dams-could-rob-millions-of-their-primary-protein-source>.

<sup>27</sup> Orr et al.

<sup>28</sup> Orr et al.

<sup>29</sup> MRC’s March 2011 technical review of the proposed Xayaburi Hydropower Project, p. 87.

<sup>30</sup> MRC’s March 2011 technical review of the proposed Xayaburi Hydropower Project, p. 86.

<sup>31</sup> The livelihoods calculation is based on the total of directly and indirectly affected populations in Laos identified by the MRC Strategic Environmental Assessment, p. 109. Fish loss estimates are summarized on p. 101 of the SEA.

<sup>32</sup> Please visit: <http://www.internationalrivers.org/campaigns/laos>.



## 6. Next steps

Human rights violations are already taking place at the Xayaburi Dam site, which require urgent action to redress. The people in the Houay Souy resettlement village have already been placed in a situation where their future livelihoods are at risk. Even if the Xayaburi Dam is not built, their lands have been destroyed and they will find it difficult to return to their previous lives. Support by the Lao government and its donor partners is urgently needed to guarantee food security for Houay Souy residents. The resettlement process poses significant risks to these communities, and should not take place before the MRC governments make a final decision on whether to build the Xayaburi Dam.

The concerns of Houay Souy are likely to be repeated in the five villages awaiting resettlement in the coming year. The two host villages of Houay Hip and Pak Mon will also face tremendous food security challenges if several other villages are merged into their own. Scarcity of land and other natural resources is a risk that has not been properly addressed.

Currently, the project company Ch. Karnchang does not seem prepared to answer villagers' questions about how they will be affected and what kind of compensation they will receive. Although the affected villagers have concerns, they are not able to raise them without placing their personal safety at risk. No grievance mechanism has been set up, as required under Lao law. Indeed, most villagers have not even been given the opportunity to ask the company questions. Villagers need better assurances that their food security will not be taken from them.

The Xayaburi Dam is only the first of eleven proposed dams on the Mekong River. These dams' food security risks—in combination with 77 dams planned on the Mekong's tributaries—have not yet been studied. The 2010 Strategic Environmental Assessment recommends a number of additional studies that should be undertaken in the coming years. The Mekong governments are still designing a larger study to understand the dams' impacts, and further studies on the Xayaburi Dam's transboundary impacts have already been requested by the Cambodian and Vietnamese governments. These studies need to take place before construction on the Xayaburi Dam continues, because even the construction phase itself will have significant impacts on food security throughout the region. Only together can the four Mekong governments of Cambodia, Laos, Thailand, and Vietnam resolve one of the greatest threats to food security that the region now faces.