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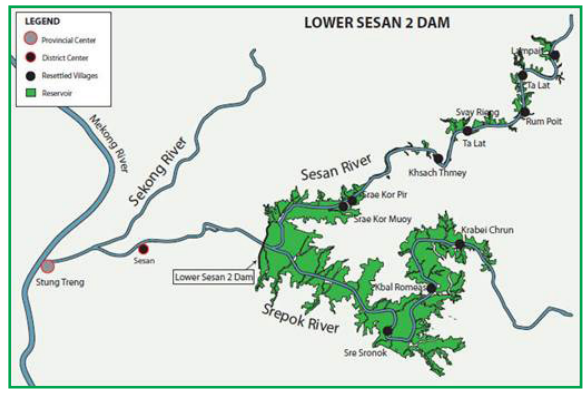
Working Together for Positive Change

SURVEY
THE COMPENSATION POLICIES AND MARKET PROPERTY PRICE LOWER SESAN 2 DAM DEVELOPMENT PROJECT

Sesan District, Stung Treng



PHNOM PENH, CAMBODIA
October 2015

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CONTENTS

Acronyms and Abbreviations

3SPN	:	3S River Protection Network
ASEAN	:	Association of Southeast Asian Nations
ADB	:	Asian Development Bank
BOT	:	Build-Operate-Transfer
CDC	:	Council for Development of Cambodia
CDRI	:	Cambodia's Leading Independent Development Policy Research Institute
CIP		Cambodia Indigenous People Organization
CNMC	:	Cambodian National Mekong Committee
CSO	:	Civil Society Organization
EAC	:	Electricity Authority of Cambodia
EDC	:	Electricite du Cambodge
EMP	:	Environmental Management Plan
EIA	:	Environmental Impact Assessment
EVN	:	Electricity of Viet Nam
FGD	:	Focus Group Discuss
HBS		Heinrich Boell Foundation
KCC	:	Key Consultant Cambodia
kWh	:	Kilowatts per hour
LSS2	:	Lower Sesan 2
MME	:	Ministry of Mines and Energy
MoE	:	Ministry of Environment
MOU	:	Memorandum of Understanding
MOWRAM	:	Ministry of Water Resources and Meteorology
MRC	:	Mekong River Commission
MW	:	Megawatts
NGO	:	Non-Governmental Organization
PECC1	:	Power Engineering Consulting Joint Stock Company 1
RGC	:	Royal Government of Cambodia

Executive Summary

Cambodia's economy has grown by an average of 7 percent annually over the past two decades. Per capita GDP has increased from USD 417 in 2004 to USD 1, 036 in 2013. With considerable high economic growth during the last decade and along with the country's intension to move into lower-middle income country by 2030, Cambodia's need of energy, especially the electricity, are increasing. The energy shortage is seen as a challenge against the continuing efforts of the government in Cambodia's reconstruction and socio-economic development. To meet these demands, it is exploring new sources of energy, including hydropower, Solar Energy, Biogas, Biomass etc. This hydropower development has been gradually increasing, it has unacceptable social, economic and environmental consequences. The decision making process of hydropower development in Cambodia is inefficient.

The Lower Sesan 2 dam (LSS2) in Stung Treng Province is currently under construction. When complete, it will be the largest hydropower project in Cambodia. The Lower Sesan 2 dam (LSS2) is projected to cause the most severe environmental impact of any dam planned for a tributary of the Mekong River. The Resettlement Committee for the Lower Sesan 2 dam (LSS2) has conducted asset surveys in the communities to be relocated for the dam reservoir. The asset surveys have raised concerns over villagers being pressured and intimidated into agreeing with the surveys and the proposed resettlement plans, which will relocate around 5,000 people.

The purpose of this report is to document the outcome of study "The compensation policies and market property price of The Lower Sesan 2 dam (LSS2) development project in Sesan District, Stung Treng province", commissioned by the NGO Forum of Cambodia, HBS, CIPO, OHCHR which was carried out in late December 2014 and early 2015 by a team of national consultant.

The main objective of research is to review relevant and contradicting laws and policies and estimate just and fair compensation for the communities affected by the Lower Sesan 2 dam (LSS2). The specific objectives of research are (1) Analyze relevant and contradicting laws and policies with current performance of hydroelectric dams in LSS2; and analyze and provide appropriate compensation

package based on compensation proposed by the three different constituencies such as National Assembly, Invested companies, and affected people who are living areas of construction.

The research design used a mixed methods approach with desk research of relevant documents, focus group discussions, key informant interviews and survey questionnaires. The survey interviews were conducted among randomly selected 378 community people in 9 purposively selected villages seriously or directly affected by construction of The Lower Sesan 2 dam (LSS2) in Sesan District.

Main Findings from both desk-study of relevant literature and primary data from interviews and survey conducted are summarized below.

- The Ministry of Mines and Energy (MoME) is the lead agency responsible for hydropower development in Cambodia. The National Strategic Development Plan (NSDP) (2014-2018) states that to meet the demand for electricity across the whole country, MoME will promote the exploration of energy sources such as hydropower, natural gas, and coal for the electricity generation.
- There is no specific legal framework governing hydropower development in Cambodia. A number of laws provide principles applicable to the development of hydropower dams, including those related to investment, electricity, land, forests, water resources and the environment. Existing laws contain principles regarding the rights of affected communities and the public in the decision-making and development of such projects.
- Law on Environmental Protection and Natural Resource Management 1996 sets out the framework for environmental protection in Cambodia. One stated objective is to enable 'the public to participate in environmental protection and natural resource management'. A further objective is to suppress 'any acts that cause harm to the environment. Cambodian law requires an Environmental Impact Assessment (EIA) be undertaken before the approval of hydropower dam projects. The EIA report must be reviewed and evaluated by the MoE before being submitted to the Royal Government of Cambodia for final approval.
- The EIA was completed in 2009 by Key Consultants Cambodia (KCC), and approved by the MoE in 2010. The EIA study for The Lower Sesan 2 dam (LSS2) has been subjected to significant criticism. The EIA has been

critiqued as providing an inadequate assessment of the project impacts and lacking detailed budgets and mitigation and monitoring plans. Many independent studies have indicated that project impacts will be severe and extensive, affecting large numbers of people in Cambodia and neighbouring countries. It failed to provide information or propose mitigation measures to address potentially severe threats to food security, livelihoods, nutrition and health and to local and indigenous cultures in Cambodia and the region.

- The feasibility and EIA studies involved very limited information and consultation with affected communities, meaning it was not possible to properly assess the project's impacts. Consultations conducted with villages in the reservoir area were not participatory, did not provide substantial information, and did not focus on critical issues.
- Law on the Authorization of Payment Warranty (2013) promises government guarantees to The Lower Sesan 2 dam (LSS2) Company Ltd. in case the state owned electricity utility, Electricité du Cambodge, fails to pay for the electricity from the dam, or if a political force majeure occurs. The Law is based on inadequate due diligence conducted by Key Consultants Cambodia (KCC) of Cambodia and Power Engineering Consulting Joint Stock Company 1 (PECC1) of Vietnam during the feasibility and environmental impact assessment studies.
- Cambodia is a party who signed many international treaties on human rights and need to have a legal obligation under international law to protect the rights set out in the Treaty. Therefore, the RGC should ensure full participation by the people and communities affected in the process of environmental impact assessments, and in the process of decision-making involving the construction of The Lower Sesan 2 dam (LSS2). The Cambodia government should also take measure that The Lower Sesan 2 dam (LSS2) not affecting vulnerable groups, including ethnic minority groups and women too.
- According to Article 349 of the Civil Code of the Kingdom of Cambodia a party can void a negotiated settlement if he/she can prove that the other side engaged in duress or fraud in order to induce her to enter into the settlement. The agreement of Hydropower construction between the Royal Government of Cambodia and Company can be declared as void because the feasibility and EIA studies for The Lower Sesan 2 dam (LSS2) have been subjected to significant criticism. The EIA has been critiqued as providing an inadequate assessment of the project impacts and lacking

detailed budgets and mitigation and monitoring plans. An independent review of the EIA found that 100% of the communities and individuals approached, including groups consulted during the EIA process and groups who had not been consulted, opposed construction of the dam.

- Indigenous and ethnic minority communities stand to be among those most affected by the Lower Sesan 2 dam (LSS2) Project. The language and cultures of resettled groups are at risk, and many of the villagers believe the project may force the dissolution of communities due to loss of livelihoods. Flooding will destroy traditional lands, ancient burial grounds, and spiritual cultural farms and cultural sites. In a 2013 study, 88% of upstream villagers surveyed stated that the Lower Sesan 2 dam (LSS2) would destroy their spiritual and cultural beliefs. Communities fear a breakdown of community integrity and the disappearance of traditional practices and knowledge. Far-reaching impacts on fisheries and farms will affect the traditional livelihoods of other indigenous communities upstream and downstream of the projects.
- When it comes to compensation for loss, it must not only be just or equitable, but also effective in benefiting the landowners. Compensation for land is often complicated, particularly the estimation of land values. The market value is one option used. However compensation at market value often under-compensates unwilling sellers. It is very difficult to know the owner's subjective reservation price because self-interest induces owners to quote highly inflated values. Another option is compensation at replacement cost. The replacement cost is equal to market value when the information about market value is reliable and comparable assets or acceptable substitutes are available for purchase. However, conditions are insufficient to estimate market value and replacement cost, especially in remote and rural environment because the information on land prices is not reliable.
- Over 90% of surveyed villagers have strongly requested to cancellation of the Lower Sesan 2 dam (LSS2) construction and the rest of surveyed villagers requested three main compensation (Cash, House land, Agriculture land, and Burial and Spiritual land).
- Studies have suggested the Lower Sesan 2 dam (LSS2) in Stung Treng could displace 5,000 people and adversely affect 100,000 local people. Despite the fact that the impacts of the Lower Sesan 2 dam (LSS2) on fishery, quality of water and local communities in Cambodia will be huge—more than 250 villages ranging from villages at the dam site to

those living by Cambodia's Sesan and Srepok Rivers, according to the document on compensation plan proposed by Hydro Power Lower Sesan 2 Co. Ltd., the operator of Lower Sesan 2 Hydropower Project, in 2012, only six villages—SraeKor 1, Srae Kor 2, Srae Kor Commune, Srae Sranok, Kbal Romeas, and Kbal Spean Srepok or Chrab—were listed on the company's document.

- According to the government, relocated villagers will be provided with 1,000 square meters (10,760 square feet) of land to build new homes and 5 hectares (12 acres) of land for each family to grow crops. Around 910 hectares (2,250 acres) of villagers' land will be affected by the project, but the government has reserved about 4,060 hectares (10,030 acres) as compensation.
- The Lower Sesan 2 dam (LSS2) project will flood community land in three communes and 6 villages. The compensation and resettlement process for the Lower Sesan 2 dam (LSS2) has lacked transparency and has not been carried out in a consistent manner. The communities to be relocated for the project have not been adequately informed or consulted regarding the compensation and relocation plans, which were developed without their inputs. More importantly, there is no consultation at the very beginning of the project development planning
- The communities of Sesan District in Stung Treng were unhappy and made statement to reject the "Mechanisms and Procedures of Compensation and Resettlement Policy of Lower Sesan 2 in Stung Treng" which was signed on 17 January 2014 by H.E Suy Sem Minister of Mines and Energy and the Chief of Inter-Ministries Committee" and the "Compensation and Solution Policies on Impacts of Lower Sesan 2" prepared by Hydropower Lower Sesan2 Co., Ltd.

Conclusion

In case of the Lower Sesan 2 dam (LSS2) was developed, there is failure on the part of the RGC to fully enforced existing laws to ensure an effective regulatory framework for the development of hydropower project. The rights of communities have been violated and economic, social and environmental impact have not been properly addressed.

The Lower Sesan 2 dam (LSS2) will be increasing pressure on Cambodia's water resources and affecting its quality and availability and livelihood options of

villagers. It is important for local stakeholders and local communities to engage in a dialogue that considers how hydro-electric dam construction can be more sustainable and profitable.

Over 90% of surveyed villagers in three communes of the Lower Sesan 2 dam (LSS2) are farmers and more than 90% strongly requested to cancel the Lower Sesan 2 dam (LSS2) hydro-electricity dam construction?

The compensation demanded by the community and compensation proposed by company (Royal Group and Chinese Firm Hydrolancang International Energy Co.,Ltd) and the government is quite different. This survey found that compensation should be an average of USD 108,126 for each household plus cost for relocation ceremony, cost for economic opportunity loss and burial and spiritual land in each community (Detail shown in general findings). Existing compensation approach in Expropriation Law (ASAMIKOR) should be reviewed and amended for practical and feasible implementation and enforcement.

Recommendations

The first recommendation is to cancel Hydro-Electricity Dam Construction and transfer those areas to be ***World Largest Eco-Tourist Place***.

The second recommendation is to provide full package of compensation such as cost for household property, burial and spiritual forest Land, cost for relocation ceremony, and cost for economic opportunity loss). The proposed package are;

Description	Surveyed cost
Cost for household property (Average)	USD 108,126
Cost for economic opportunity loss (12 months)	USD 4,644
Cost for household relocation ceremony	USD 2,000
Cost for community relocation ceremony	USD 4,000
Burial forest land for each community	3 ha
Spiritual forest land for each community	5 ha

I. Country Hydropower Sector Context

Cambodia has been successfully rebuilding Cambodia through the last two decades from a state of near total destruction. The civil war lasted nearly three decades, and an economic isolation/embargo was in force virtually since the early 1970s until 1993. Cambodia is classified as a least-developed country (LDC) by the United Nations. Its per capita income exceeded USD 1,000 the first time in 2012. There has been a near 5-fold increase in the per capita income in the last decade or so, which is a notable achievement. In this regard, the country might be moving out of its least-developed country status in the near future.

Cambodia's economy has grown by an average of 7 percent annually over the past two decade. Per capita GDP has increased from USD 417 in 2004 to USD 1,036 in 2013. The poverty rate has declined from 53.2 percent in 2004 to 18.9 percent in 2012.[1] As a consequence of its brisk pace of development, Cambodia energy demands are increasing. To meet these demands, it is exploring new sources of energy, including hydropower. Cambodia's energy consumption has outpaced production since 2007 and one-quarter of the country's consumed energy is supplied by imports, primarily from Vietnam, Thailand, and Laos. Despite these imports, only 22.5 percent of Cambodian households (or 54 percent of urban households and 13 percent of rural households) have access to electricity due to the country's lack of infrastructure to provide consistent flows of electricity, particularly to rural areas, where roughly 80 percent of its population resides.[2] Moreover, Cambodia is predominantly reliant on oil for its energy needs—nearly 90 percent of Cambodia's power plants are fuelled by imported light diesel and heavy fuel oil.[3] This dependence on expensive and unreliable supplies of energy remains a key restraint on Cambodia's development path and a major disincentive to potential investors in the country's economy.[4] Cambodia ranks 133rd out of 185 economies in the World Bank's overall Ease of Doing Business index in 2013.[5] The high cost of doing business in Cambodia, including electricity also hurts micro and small enterprises, which represent 99.6

[1] UNDP, (2013), Country Common Assessment, Cambodia
[2] See: http://www.cambodiainvestment.gov.kh/investors-information/infrastructure/electricity.html
[3] "Renewable dreams." in Economy, Cambodia. (2012, September 20). Economist Intelligence Unit, The Economist.
[4] "Several dead after accident at Chinese dam project" in Economy, Cambodia. (2012, December 2012). *Economist Intelligence Unit, The Economist.*
[5] World Bank, 2013 Where Have All the Poor Gone: Cambodia Poverty Assessment 2013.

percent of the firms in Cambodia and are an important source of employment for women.[6]

In response, Cambodia appears to be increasingly turning to hydropower as the key to break free from its developmental constraints. As of 2009, only 4 percent of Cambodia's energy was provided by hydropower. In 2003, A National Sector Review for Hydropower was established to explore the role hydropower could play in increasing electrification. This review found 60 possible sites for hydropower development, of which 13 were identified as priority projects. The review also estimated Cambodia's total hydropower potential at 10 GW, of which 50 percent is located on the mainstream Mekong, 40 percent on its tributaries, and 10 percent in the south western part of the country.[7]

Cambodia's Department of Energy Development formulated an electricity supply development plan in 2008 calling for the construction of eight hydro power plants and three coal power plants—together with a production potential up to 3,576 MW of electricity—to be completed by 2020.[8] Since then, plans have been scaled up. The government's Electricity Supply Development Master Plan for 2010-2020 sets the goal of expanding electricity generation capacity by an additional 3.2 GW—1.9 GW of which is to come from hydropower. To meet these goals, the government has plans for 14 large hydroelectric dams to be operational by 2020.[9]

Cambodia's Power Development Plan also predicts that electricity demand will rapidly increase through 2020, and thus calls for constructing transmission lines which, in addition to electricity imports from neighbouring countries, would supply electricity to all cities by 2020 70 percent of rural households by 2030.

In the Fourth Legislature, the RGC expanded the supply capacity and diversified energy sources to reduce reliance on petroleum fuels for electricity generation. Hydropower and coal-fired power plants was broadly preferred along with import of electricity from the neighboring countries. In parallel, RGC paid attention to the expansion of transmission and distribution networks and reduction of electricity losses, to meet the annual electricity demand increase of

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[6] World Bank, 2013 Study on Access to Financial Services for Small and medium Agribusiness Enterprises in Cambodia

[7] Diana Suhardiman, Sanjiv de Silva, and Jeremy Carew-Reid. "Policy Review and Institutional Analysis of the Hydropower Sector in Lao PDR, Cambodia, and Vietnam."

[8] Ibid 9

[9] Hydropower plans unscathed after dam collapse" in Economy, Cambodia. (2012, December 6). *Economist Intelligence Unit, The Economist*

25%.[10] In the Fifth Legislature, RGC will further strengthen the capacity and security of electricity supply and expand the supply coverage to enhance economic competitiveness, support long-term economic growth, strengthen the capacity to ensure energy security, and improve the living conditions of the people including promote integration between irrigation, and hydropower and transportation.[11]

On September 7, 2012, the largest of the eight dams on the Chinese side of the Upper Mekong (Lancang) River came online in Pu'er, Yunnan Province. The Nuozhadu hydroelectric station, Asia's tallest dam, turned on the first of its nine generating units that hopes to supply 23.9 billion kilowatts of energy by 2014.[12] Two months later, Laos announced that it was going ahead with the construction of the Xayaburi Dam and broke ground shortly thereafter, despite continued opposition from Cambodia and Vietnam. Indeed, like falling dominos, dams are cascading down the Mekong River. Laos, Thailand, and Cambodia together have proposed a total of 12 dams on the mainstream of the Lower Mekong that threaten to irreparably harm the ecology of Southeast Asia's most vital river. Together, these twenty dams—all at various stages of planning, construction, or completion—are double-edged swords: offering the benefits of renewable electricity to rapidly developing nations but also threatening populations and the environment. Natural resource management is a matter of increasing concern as Cambodia's rapid economic development is having serious, far-reaching impacts on its environment and natural resources base. Deforestation as a result of hydroelectric dam construction, illegal logging, and economic land concession (ELCs) activities has affected watersheds with adverse impacts on the quality and availability of water resources.

For Cambodia, there is potential to construct more than 26 new hydropower projects in 3S basin. Among these projects, the largest hydropower projects proposed, planned and approved on the 3S Rivers within Cambodia namely Lower Sesan 2 (400 MW), Lower Sesan 1/5 (96 MW) and Lower Sekong (190 MW), Lower Srepok 3 (300 MW), Lower Srepok 4 (220 MW), Lower Sesan 3 (375 MW). There are also a number of smaller dams planned for tributaries of the 3S rivers, such as the Prek Liang 1 (64 MW) and Prek Liang 2 (64 MW) (Grimsditch, 2012). For the mainstream of the Mekong River, two dams are

[10] RGC. (2013). *National Strategic Development Plan 2014-2018,*
[11] Ibid 1
[12] "Nuozhadu Dam." HydroChina International Engineering Co., Ltd. [Online]. Available: http://hydrochina.net/businessarea6.aspx?ProductsID=624&CaseId=82&CateId=82&pid=9.

planned to constructed in Cambodia namely Stung Treng (980 MW) and Sambor (2,600 MW). These dams are longer than the other dams which require resettling over 29,000 people from the flood area of the reservoirs. It would make the poverty in Cambodia more sever particularly the poor in Stung Treng and Kratie province. Anyway, over 1 million fisheries-dependent people in both Mekong River and Tonle Sap Lake could lose their livelihoods one their main occupation as fishing (ICEM, 2010).

II. The Lower Se San II dam (LSS2)

The Lower Se San II dam (LSS2), currently under construction, located on the Se San River in Se San District, Stung Treng Province, north-eastern Cambodia, is the largest dam to be constructed in Cambodia. The Se San River is a major Cambodian tributary of the Mekong, conjoining in Stung Treng Province where the provincial capital of the same name is located. In 2007, a memorandum of understanding between Cambodia's Ministry of Industry, Mines and Energy and Electricity of Vietnam was signed, including the undertaking of an environmental impact assessment and a feasibility study for the Lower Sesan 2 project. In January 2011, Vietnam Ministry of Planning and Investment licensed Electricity of Vietnam to make a US$816 million investment into the project. The government approved the project on 4 November 2012. On 26 November 2012, the agreement on the dam construction was signed between the Royal Group and China's Hydrolancang International *Energy*_Pre-construction activities on the project are already underway. Substantive construction of the dam has commenced in early 2015. According to plans for the project, substantive construction will take 35 months. The Lower Sesan 2 Dam is being developed by a consortium of Chinese, Cambodian and Vietnamese companies, including China’s Hydrolancang International Energy Co. Ltd and Cambodia’s Royal Group. When complete, the dam will be approximately 75m high and 8km long, creating a 33,560 hectare reservoir, with a generating capacity of 400 MW. More than 5,000 people, most of whom are indigenous, will be forcibly resettled if the project proceeds.

The LSS2 dam is projected to cause the most severe environmental impacts of any dam planned for a tributary of the Mekong River. Specifically, it is predicted to reduce fish biomass by 9.3% across the entire Mekong River Basin and critically endanger over 50 fish species, resulting in significant fishery losses in Cambodia in the Mekong and its tributaries and the Tonle Sap Lake. It is also expected to cause substantial changes to the sediment and hydrological flows of

the Mekong River and its tributaries, extending as far downstream as the Mekong Delta in Vietnam.3 These impacts will have extremely serious implications for the food security of hundreds and thousands of people in riverine communities in the Sesan, Srepok and Sekong (3S) Rivers Basin and the Mekong River Basin. In Cambodia and neighboring countries, migratory fish form a primary source of essential dietary protein; the impacts of fishery losses on health and nutrition are likely to be widespread and severe, and to have disproportionate impacts on indigenous people, women and children.

The Resettlement Committee for the LSS2 dam has conducted asset surveys in the communities to be relocated for the dam reservoir. The asset surveys have raised concerns over villagers being pressured and intimidated into agreeing with the surveys and the proposed resettlement plans, which will relocate around 5,000 people.

The details of the impacts are in the table below:

Table 1: Predicted Impacts of Lower Sesan 2 Dam

- 335 square kilometres of Cambodia territory would be flooded and more than 1,000 families or 5000 people would be displaced and effect dozens of villages along both rivers, upstream and downstream;
- 267 families and 1,229 people would need to relocate;
- The loss of 1,290 ha of lowland agricultural land, or about one quarter of all the wet rice paddy land in Sesan district;
- Over 305 square kilometres of land would be flooded, as well as additional 7,086 ha of forest would be destroyed by resettlement of villages from inundation area;
- The loss of approximately 18,670 ha of natural forest land and 4,896 ha of lost rivers and stream;
- Many kinds of wild mammals and birds would be negatively affected, especially its habitat and movement. It would indirectly impact on the Virakchey National Park.
- 9.3 percent of Mekong River Basin's fisheries and 6-8% of Mekong River Basin's sediment would be blocked
- Changing of hydrology, water flows and transportation of boats;
- Decreasing of water quality; especially water quality in downstream. In addition, water pumped from the Stung Treng River would contain toxin which could affect serious illness outbreaks amongst water users;
- Effecting on forestry and wild habitats; effecting on biodiversity in water and fisheries;
- Effects on culture resources and quality of life;

Note: Impacts caused by planned Lower Sesan 2 hydropower is just only from the

assessment based on the perception of local people and other involved stakeholders whilst Lower Sesan 2 hydropower dam start to build in 2014.

Source: NGO Forum, 2009; Biard, 2009; Presentation by Trandem, 2013

III. Objectives

The main objective of research is to review relevant and contradicting laws and policies and estimate just and fair compensation for the communities affected by the LSS2 Hydroelectric Dam. The specific objectives of research are;

- Analyze relevant and contradicting laws and policies with current performance of hydroelectric dams in LSS2
- Analyze and provide appropriate compensation package based on compensation proposed by the three different constituencies such as National Assembly, Invested companies, and affected people who are living areas of construction.

IV. Methodologies

4.1 Survey Design

The research design used a mixed methods approach with desk research of relevant documents, focus group discussions, key informant interviews and survey questionnaires (Figure 1). The survey interviews were conducted among randomly selected 378 community people in 9 purposively selected villages seriously or directly affected by construction of LSS2 Hydroelectric Dam in Sesan District. Study also looked at all aspects and large areas of upstream and downstream. The fieldwork for the research was carried out in December 2014

Figure 1: Study design

Study Design	Participatory discussion on objectives and focus of survey
	Research Tools and Data Collection Training
	Desk Study and Literature Review
	Focus Group Discussions with affacted communities
	Key Informant Interview with community stakeholders
	Interview with randomly selected sample population
	Preliminary Findings Consultation
	Inputs incorporation
	Final Product Submissions

4.2 Population Study and Study Areas

Sample Size was calculated using YAMANE's Formula for determining the sample size.. This formula assumes a degree of variability (i.e. proportion) of 0.5 and a confidence level of 95%. Total sample size was estimated 378 households among 6,554 households in all 9 villages. The sample distribution is given in the table below

Table 2: Sample size

No	Province and District	Commune	Village	Total # of Households	Sample Size for village
1	Stung Treng Province Sesane District	Phlouk	Phlouk	933	54
2		Sre Kor	Sre Kor I	777	45
3			Sre kor II	756	43
4		Kbal Romeas	Kbalroumeas	658	38
5			Sresronuk	570	33
6			Krobeychrom	963	55
7		Talat	Khsachthmey	1300	75
8			Talat	393	23
9			Rompoth	204	12
		4 Communes	**9 Villages**	**6554**	**378**

4.3 Data Processing and Analysis

After processing and cleaning with excel and Epi-data program, professional young research team together with consultant practiced data analysis by using SPSS version 19/ 21 (the most updated software computer program) in which raw data was ordered and organized so that useful information could be extracted from it. The process of organizing and thinking about data was key to understanding what the data does and does not contain. There were a variety of ways in which people could approach data analysis, and it was notoriously easy to manipulate data during the analysis phase to push certain conclusions or agendas. For this reason, data analysis paid attention when data analysis was presented, and thought critically about the data and the conclusions which were drawn. The frequency and cross tabulation were used to see demographic characteristics and geographic conditions of each villages, up-stream,

downstream with the status of impact at household levels and community status. Data analysis focused on descriptive analysis for all indicators. Proportions were computed to determine the status of each indicator. Comparison analysis between compensation plan proposed by national assembly, practiced compensation applied by invested companies and compensation proposed by surveyed people or respondents. The findings, conclusions, discussions and recommendations were carefully discussed and critically analyzed and judged. The draft version of the report was circulated among relevant stakeholders for the comments and feedback. All the comments and feedback were incorporated in the final report to the extent possible.

4.4 Limitation

There are several limitations to consider when interpreting the research findings. Namely:

- All surveys have limitations. The survey capture perceptions, not fact and record what people say rather than what people do. Respondents may not understand questions or may not answer truthfully. There are always biases, including the tendency to select central answers, rather than outlying ones. The survey findings are based on self-reported responses to survey questions and may have led to under-reporting of negative aspects and over reporting of positive aspect. The threat of relocation could be seen as emotional and negative, which might have induced participants to over-estimate value of their property.
- The compensation proposed by research team cannot be generalized to other communities affected as the research was only conducted in the 9 villages seriously or directly affected by construction of SESAN 2 Hydroelectric Dam in of Sesan District. Note that section on analysis of relevant and contradicting laws and policies with current performance of hydroelectric dams in Sesan Krom 2 is to large extent taken from CSO submission to UN Special Rapporteur on the situation of human rights in Cambodia Hydropower Dam Development in Cambodia: Lower Sesan 2 and Stung Cheay Areng Hydropower Projects (dated 15 January 2015)

V. Findings

Findings from both desk-study of relevant literature and primary data from interviews and survey conducted are summarized below.

5.1 Analyze relevant and contradicting laws and policies with current performance of hydroelectric dams in Sesan Krom 2

Institutions Responsible for the Hydropower Sector

The Ministry of Mines and Energy (MoME) is the lead agency responsible for hydropower development in Cambodia. The National Strategic Development Plan (NSDP) (2014-2018) states that to meet the demand for electricity across the whole country, MME will promote the exploration of energy sources such as hydropower, natural gas, and coal for the electricity generation.

MoME is responsible for development of policy and strategic plans for the hydropower sector in cooperation with both international and national institutions. MoME also cooperates with MRD, MoE, MOWRAM, MEF, MAFF, Cambodia National Mekong Committee (CNMC), CDC, and the Council of Ministers for sector integration. Electricité Du Cambodge (EDC) and Electricity Authority of Cambodia (EAC) are responsible for the hydropower sector in Cambodia.

The Ministry of Environment (MoE) has the role of reviewing and approving environmental impact assessments (EIAs) for hydropower projects and monitoring project compliance with the EIA report. The Ministry of Water Resources and Meteorology (MOWRAM) is responsible for issuing water use licenses for hydropower projects. All projects involving investments of over US$50 million and all BOT projects must be approved by the Council for the Development of Cambodia (CDC), which is the highest decision-making body for private and public sector investment in Cambodia.[13]

Relevant national and international laws and polies for the Hydropower sector

There is no specific legal framework governing hydropower development in Cambodia. A number of laws provide principles applicable to the development of hydropower dams, including those related to investment, electricity, land, forests, water resources and the environment. Existing laws contain principles

[13] Open Development Cambodia, 'Briefing: Hydropower

regarding the rights of affected communities and the public in the decision-making and development of such projects.[14]Following table 3 summarises contradicting points of relevant laws and policies in case of LSS2.

Table 3: Relevant laws and policies in case of LSS2

Law/regulations	Relevant articles
Cambodia Constitution 1993	Article 44 indicated that all persons, individually or collectively, shall have the right to ownership. The right to confiscate properties from any persons hall be exercised only in the public interest as provided for under the law and shall require fair and just compensation in advance.
LSS2 Dam Majority of people did not aware clearly about relocation or compensation approach applied by companies or government. All most all of them are worried about and agreed for public consultation or public forum. Some of them suggested to debate at their own village and commune.	
Law on investment of the Kingdom of Cambodia in 1994 and the Law on the amendment to the law on investment of the Kingdom of Cambodia in 2003 Sub-decree No 111 ANK/BK on the implementation of the law of the amendment to the law on investment of the Kingdom of Cambodia in 2005	**These laws define the required process so that an investment project can legally start operating in Cambodia though CDC's registration process and the approval from related governmental institutions** **The law also stated about the required legal document and approval or permit from relevant technical ministries for the project to be approved by CDC including EIA study, water license and so on.** **It is noted that even though the sub-decree 111 is lower in it power than these 2 laws, the government in practice, depend on the Sub-decree to interpret any differences among these 3 legal documents (CDC, 2010).**

[14] CSO submission to UN Special Rapporteur on the situation of human rights in Cambodia Hydropower Dam Development in Cambodia: Lower Sesan 2 and Stung Cheay Areng Hydropower Projects (dated 15 January 2015)

-Sub-decree 11 on BOT Contract 1998	-This Sub-decree legalize the State or public legal entities to cooperate with private legal entities on such infrastructure projects as Electricity power plants, roads and highways for vehicles, ports, telecommunication networks, railroads, residential development, hospitals, schools, airports, stadiums, tourism resorts, new cities, hydropower stations, dams, factories, clean water production plants and solid waste processing. The maximum period of infrastructure project is 30 years, but it is extendable. -This sub-decree gives the government flexible way to get through the investment process with investor. The selection of concessionaire can be done through international or national "open or close" bidding process or through negotiation process.
-Land Law 2001 **-Law on Expropriation 2009**	-Land Law states that land ownership is protected and no one can be deprived of their ownership. The law recognizes the right of indigenous communities to collective ownership of these lands (Art 26). However, this law gives way to the government to expropriate properties in the public interest. -Expropriation Law which widened the way for the RGC to legally expropriate public and private properties for project's that serve the national and public interest. The government can still expropriate property even if there are unresolved disputes; however, property owners can continue to challenge the expropriation, or the compensation they received, in the courts (Art 19, 34). -However, Expropriation Law establishes processes and mechanisms for expropriation implementation aiming at ensure that the expropriated properties will be compensated at market price when the expropriation is declared. Of the Article 1 of the Law on Expropriation 2009, defines fair and just compensation for any construction, rehabilitation, and physical

	infrastructure expansion project for the public and national interests and development of Cambodia. Article 2 ensures just and fair deprivation and legal rights to private property and ensure a fair and just compensation in advance.
LSS2 Dam -Government of Cambodia and investment companies did not respect the land law 2001 and did not consult with the community people on ownership deprivation, People have no full right to protect their ownership and express their concern publicly toward fair and just compensation. -The compensation is not fair and just as the compensation methods proposed by government, investment companies and people is not agreed by community. Valuation of all private property (House, Animal, Land and other household assets) was not done in participation and consultation with people**.**	
-**Sub Decree On Social Land Concessions (2003)**	-The sub-decree defines the criteria, procedures and mechanism for the granting of social land concessions for residential use and/or family farming. -The maximum size of social concession land granted for residential purposes is one thousand two hundred (1,200) square meters, except in rural areas where land is available, the size of social concession may be increased up to three thousand six hundred (3,600) square meters (Art. 16). -The maximum size of social concession land granted for family farming purposes is two hectares, but for some areas the size of social concession land may be increased up to five hectares based on the characteristics and potentiality of the land or the type of crop, and labor (Art. 17).
LSS2 Dam- Many of the communities in the LSS2 dam area are already facing poverty and livelihoods challenges due to deforestation and loss of access to forest products and other resources as a result of economic land concessions in the area.	

-Law on Environmental Protection and Natural Resource Management 1996 **-Sub-degree on Environmental Impact Assessment Process 1999**	- EPNRML also raises about EIA as saying that "An environmental impact assessment shall be conducted on every project and activity of the private or public, and shall be approved by the Ministry of Environment before being submitted to the RGC for decision (Art 6). - It sets out the framework for environmental protection in Cambodia. One stated objective is to enable 'the public to participate in environmental protection and natural resource management'. A further objective is to suppress 'any acts that cause harm to the environment. Cambodian law requires an Environmental Impact Assessment (EIA) be undertaken before the approval of hydropower dam projects. The EIA report must be reviewed and evaluated by the MoE before being submitted to the Royal Government for final approval. - Requirements for the procedure and content of EIAs are set out in a sub-decree and two prakas (regulations) of the MoE. The Sub-decree on EIAs stipulates that the EIA process must, "encourage public participation in the implementation of the process and take into account their input and suggestions in the process of project approval." This sub-decree require hydropower project with installed capacity of at least 1M to conduct initial or full EIA study. 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). - This Sub-decree raises the importance of public participation in the EIA process. This Sub-decree put MoE on the responsibility to evaluate and review EIA reports with other relevant ministries. Moreover, MoE is also responsible for monitoring and take appropriate action to ensure that EMP is followed properly (Art 3).
LSS2 Dam - The EIA was completed in 2009 by Key Consultants Cambodia (KCC), and approved by the MoE in 2010. The EIA study for LSS2 has been subject to significant criticism. The EIA has been critiqued as providing an inadequate	

assessment of the project impacts and lacking detailed budgets and mitigation and monitoring plans.[15] Many independent studies have indicated that project impacts will be severe and extensive, affecting large numbers of people in Cambodia and neighbouring countries. It failed to provide information or propose mitigation measures to address potentially severe threats to food security, livelihoods, nutrition and health and to local and indigenous cultures in Cambodia and the region.

- Unfortunately, the EIA sub-decree does not include detailed guidance on the requisite level and nature of public consultation. However a new EIA law now under development (currently in draft form) includes detailed requirements for public access to information and consultation.

- **Law on the Authorization of Payment Warranty (2013).**	- The law promises government guarantees to Hydropower Lower Sesan 2 Company Ltd. in case the state owned electricity utility, Electricité du Cambodge, fails to pay for the electricity from the dam, or if a political force majeure occurs

LSS2 Dam

- When States contract with or legislate for businesses providing services that carry human rights risks, the responsibility to protect is greater, and they must exercise adequate oversight.[16]

- Additional steps are required to ensure adequate human rights due diligence when companies are receiving substantial support and services from the government.[17]

- The Law on the Authorization of Payment Warranty is based on inadequate due diligence conducted by Key Consultants Cambodia (KCC) of Cambodia and Power Engineering Consulting Joint Stock Company 1 (PECC1) of Vietnam during the feasibility and environmental impact assessment studies. Furthermore, the law lowers the standards for social and environmental protection set out in the EIA report by placing limits on company responsibility for project impacts. This legislation falls far short of the standard under the UNGPs required of governments contracting with businesses, and

[15] The NGO Forum on Cambodia, 'Lower Sesan 2 Hydro Project EIA Review' Phnom Penh, Cambodia, August 2009.
[16] UNGP Principle 5
[17] UNGP Principle 4

potentially conflicts with national legal principles pertaining to rights to public participation and environmental protection.[18]	
-**Law on Water Resource Management 2007**	-The Law[19] requires MOWRAM to consult with other Ministries and local authorities to take appropriate action in relation to dam projects that may cause disastrous impacts. The law also holds that Cambodia has the "duty to participate in the utilization, development and management of an equitable and reasonable share of the international river basins in its territory, consistent with the obligations arising from the international agreements to which Cambodia is a Party." -This Law is intended to ensure the effective and sustainable management of the water resources to attain socio-economic development and the welfare of the people (Art 1). -This law requires the development related to water to ask water use license from MOWRAM.
-**Royal Decree on the Protection of Natural Areas 1993**	-The Royal Decree assigns aims at managing and supervising the development and protection of natural areas, including the protection of environment, land, forestry, wetland and coastal areas. -The Royal Decree outline certain areas as protected areas including Natural Parks, Wildlife Preserves, Protected Scenic View Areas, and Multi-purposes Areas
-**Protected Areas Law 2008**	-The law divides protected areas into 4 zone type: core, conservation, sustainable use, and community (Art 4) -The law states that all kinds of clearance and development in the core and conservation zones is prohibited (Art 36), and the developments activities within or adjacent to protected areas require EIA (Art 44).

[18] CSO submission to UN Special Rapporteur on the situation of human rights in Cambodia Hydropower Dam Development in Cambodia: Lower Sesan 2 and Stung Cheay Areng Hydropower Projects (dated 15 January 2015)

[19] *Water Resources Law* (2007), Kingdom of Cambodia, Article 25.

-**Forestry Law 2002**	- The Law on Forestry adds to the current requirements, stating 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."[20] -This law 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). -This law recognizes traditional user rights of the people whose livelihood depend on non-timber forest products from the forests for the purpose of traditional customs, beliefs, religions and livelihood (Art 40).
-**Electricity law 2001**	-The purpose of this law is to manage and to prepare a framework for the electric power supply and services in Cambodia (Art 1).The established principles of this law are (1) the protection of the rights of consumers to receive the reliable and adequate supply of electric power services at reasonable cost, (2) the promotion of private ownership on the facilities for providing electric power services, and (3) the establishment of competition wherever feasible within the electric power sector -From this law, the EAC was established as a legal public entity working as an autonomous agency to regulate the electricity services and to govern the relation between the delivery, receiving and use of electricity (Art 6)
- **International Law:**	- Cambodia is a party who signed many international treaties on human rights and need to have a legal obligation under international law to protect the rights set out in the Treaty. These treaties include the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on

[20] *Forestry Law* (2002), Article 4.

	Economic, Social and Cultural Rights (ICESCR), Convention on the Rights of the Child (CRC), the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the Convention on the Elimination of Racial Discrimination (CERD). The China is also a party that signed the legal documents, as well as the current and a member of the UN Human Rights Council. International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR), placed an obligation on States Parties to promote the rights of all people to making decision on their own, including property rights in managing natural resources and without coercion. International Covenant on Civil and Political Rights (ICCPR) has ensured the right of participation in public affairs. Therefore, the RGC should ensure full participation by the people and communities affected in the process of environmental impact assessments, and in the process of decision-making involving the construction of Hydropower Lower Sesan2 dam. The Cambodia government should also take measure that the Hydropower LSS2 dam not affecting vulnerable groups, including ethnic minority groups and women too.

Source: RUPP (2013), "Improving Hydropower Project Decision Making Processes in Mekong Basin: Case Studies of Lower Sesan 2 and Kamchay Hydropower Projects, Cambodia"; CSO submission to UN Special Rapporteur on the situation of human rights in Cambodia Hydropower Dam Development in Cambodia: Lower Sesan 2 and Stung Cheay Areng Hydropower Projects (dated 15 January 2015) and author analysis

Status of Forced Eviction: Globally, the practice of forcibly evicting people from their homes is an egregious human rights abuse that in most cases could be prevented. Forced eviction targets the most marginalized and vulnerable populations, most often with far-reaching implications with respect to their housing, employment, education physical and mental health, family life, culture

and overall well-being. Moreover, forced eviction deepens poverty, destroys communities, and irrevocably adversely impacts the future of millions of people in the world. Multivariable analysis of the socioeconomic impact of forced eviction on households assume that a forced eviction household and relocated households are 23% more likely to be poor, even when controlling for education of the household head, urban/rural status and other socioeconomic variables. Differences between households in the poorest and wealthiest quintiles also show how deep the differences can be across households. Illegal forced evictions increase poverty and asset vulnerability (UN-HABITAT 2002), and directly counter the efforts to fulfil target 4 of Millennium Development Goal number 7. The lack of adequate compensation regularly results in homelessness, social conflict and disproportionately affects the poor and marginalized, such as children, women, and minority groups (COHRE 2006). Many evictees develop distrust in the political system, and suffer from emotional, physical and psychological trauma that are at times so bad that attempted suicides are regular occurrences once eviction orders have been served. The UN Basic Principles and Guidelines on Development-Based Evictions and Displacement, which address human rights implications of development-linked evictions and related displacement in urban and rural areas, require that States must ensure that evictions only occur in exceptional circumstances, and must give priority to exploring strategies that minimize displacement. It set out guidance to states on ensuring compliance with human rights principles.[21] Governments must ensure that a clear and comprehensive resettlement policy consistent with human rights is in place before relocation occurs; sufficient information regarding relocation is provided to affected persons; prior and informed consent regarding relocation and participation in relocation decisions is guaranteed; the rights of indigenous peoples and women are equally protected; and 90 days' notice is provided before evictions take place.[22] The eviction process must guarantee that affected people will be in the same position or better off as a result of the evictions. The Committee on Economic, Social, and Cultural Rights has held that evictions require, at a minimum: "an opportunity for genuine consultation for those affected; adequate and reasonable notice prior to the scheduled date of eviction; and information on the proposed evictions." Forced evictions are one of Cambodia's most pervasive and pressing human rights problems. A 2009 Human Rights Watch report estimates about 85,000 people have been forcibly evicted during the last 10 years. More than 150,000 Cambodians are estimated to be

[21] UN Basic Principles and Guidelines for Development Based Evictions and Displacement (BPED)
[22] BPED para 56 and 58

living under the threat of forced eviction, including approximately 70,000 people in Phnom Penh. The Cambodian constitution guarantees the right to adequate housing and the 2001 Land Law provides protection against the arbitrary expropriation of property. Specifically, People who are living in LSS2 Construction areas and upstream will be seriously affected by forced eviction and long term flood after construction. Moreover, based on above findings it can concluded that threat of forced eviction and relocation affect LSS2 Indigenous and non-indigenous communities such as household income, education, health, food security and adequate housing. The affected communities always faces insecurity and uncertainty regarding forced eviction, which affects negatively their health, and income of education of their children. The analysis show that relocated communities in LSS2 as well as in somewhere have been relocated to place where basic service are generally not available, leading to increase debt to buy essential assets, which together with other factors contribute negatively to income, health problem, education and adequate housing etc.

Economic, social and cultural Rights: If this Hydropower dam is built, it will likely be a serious effect on the rights of people who are limited decent living standards, including the right to adequate food, water &housing, and access to health care services at the highest level. In particular, the impact caused by Hydropower Lower Sesan2 dam project on the fisheries and other key livelihood would undermine food security and nutrition, and is likely to lead to poverty and malnutrition. Most of these impacts can be dropped on children and pregnant women who rely on nutrients from fish and aquatic animals to their well-being and development. Revocation livelihoods without replacing or business without access to productive land is a violation of labour rights, including the work to be chosen without coercion. Moreover, the Hydropower dam will destroy the traditional way of life of the community as spiritual forest and burial ground/forest of their ancestors. Those impacts violated the right of the community to participate in the cultural life in obedience and protection of their cultural habits and traditions.

Freedom of expression and freedom of assembly: Royal of Cambodia Government and Project Development Company have a responsibility to respect and protect the rights of free speech rights to peaceful assembly and association protest against the Hydropower dam, and allow peaceful protests without threat or intimidation by government officials. Until now, people protested about the Hydropower dam is suffering a life-threatening, threats, arrest and detention, and faced intimidation more actions. It was reported that there was an attempt to

provide an incentive to community leaders in order to promote and encourage community members to support the project.

Development Company's obligation to respect the human rights: The obligation of international human rights and Royal of Cambodia Government require the development company to prevent the violation of human rights by companies operating in its territory or local authority. According to the Guiding Principles on Business and Human Rights, the Cambodia government has an obligation to protect human rights, not to challenge the impact caused by the company's activities. This obligation is highly strict when these companies are public sector companies. According to the Guiding Principles on Business, the company has the obligation to respect of human rights, it means that has a strict measures to identify blocking reduce, and resolve the impact of human rights either caused by the activities of its business, including the impact of human rights are those companies involved, through the relationship of its business, although the companies themselves did not cause impacts them.

Civil Code: According to Article 349 of the Civil Code of the Kingdom of Cambodia a party can void a negotiated settlement if he/she can prove that the other side engaged in duress or fraud in order to induce her to enter into the settlement. The agreement of Hydropower construction between the Royal Cambodia Government and Company can be declared as void because the feasibility and EIA studies for LSS2 have been subject to significant criticism. The feasibility study for the LSS2 project was conducted in 2008 by a subsidiary of EVN, the Power Engineering Consulting Joint-Stock Company No. 1 (PECC1). The EIA was completed in 2009 by Key Consultants Cambodia (KCC), and approved by the MoE in 2010.[23] The EIA has been critiqued as providing an inadequate assessment of the project impacts and lacking detailed budgets and mitigation and monitoring plans.[24] As noted above, independent studies have indicated that project impacts will be severe and extensive, affecting large numbers of people in Cambodia and neighbouring countries. While the authors of the EIA study acknowledged the likelihood of wider environmental impacts outside of the immediate vicinity of the project, including along the Mekong River and the Tonle Sap Lake, the EIA report did not adequately examine these impacts. It therefore failed to provide information or propose mitigation measures

[23] Mekong Watch, 'Fact Sheet: Lower Sesan 2 Hydropower Project', updated September 2014.
[24] The NGO Forum on Cambodia, 'Lower Sesan 2 Hydro Project EIA Review' Phnom Penh, Cambodia, August 2009.

to address potentially severe threats to food security, livelihoods, nutrition and health and to local and indigenous cultures in Cambodia and the region. The feasibility and EIA studies also involved very limited information and consultation with affected communities, meaning it was not possible to properly assess the project's impacts. An independent review of the EIA found that 100% of the communities and individuals approached, including groups consulted during the EIA process and groups who had not been consulted, opposed construction of the dam.[25] The EIA also lacked a detailed cost-benefit analysis or assessment of alternatives to the LSS2, both of which are required in order to provide a transparent basis for decision-making.[26] The economic feasibility of the dam has been questioned.

Indigenous peoples' rights: The UNDRIP contains the right of indigenous people to self-determination, encompassing a right to freely 'pursue their economic, social and cultural development'.[27] Indigenous peoples have a right to be secure in the enjoyment of their own means of subsistence and development, and to engage freely in traditional and other economic activities.[28] Indigenous people have a right to protection against forced destruction of their cultures and identity and the right to maintain, protect, and access their religious and cultural sites.[29] Indigenous and ethnic minority communities stand to be among those most affected by the LSS2 project. The language and cultures of resettled groups are at risk, and many of the villagers believe the project may force the dissolution of communities due to loss of livelihoods.[30] Flooding will destroy traditional lands, ancient burial grounds, and spiritual and cultural sites.[31] In a 2013 study, 88% of upstream villagers surveyed stated that the LSS2 dam would destroy their spiritual and cultural beliefs. Communities fear a breakdown of community integrity and the disappearance of traditional practices and knowledge.[32] Far-reaching impacts on fisheries and farms will affect the traditional livelihoods of other indigenous communities upstream and downstream of the projects.

[25] Ibid 30
[26] Ibid 30
[27] UNDRIP, Article 3.
[28] UNDRIP Article 20
[29] UNDRIP Article 12
[30] Baird (2009), at 95
[31] Yeang Socheameta and Samean Yun, 'Cambodia's Parliament OKs Compensation Plan,' *Radio Free Asia*, 19 June 2014; Baird, at 36; Pye, D., & Seangly, P., 'Waiting for the Deluge,' *The Phnom Penh Post*, 24 Feb. 2014; Royal University of Phnom Penh (2013) at 54-56
[32] RUPP (2013)

Rights to Information, Consultation and Participation

The ICCPR and ICESCR contain the right of all peoples to self-determination, which includes the right to freely determine one's economic, social, and cultural development, as well as the right to freely dispose of natural wealth and resources. ICCPR article 25(a) guarantees the right to participate in public affairs, directly or through freely chosen representatives, which includes the execution of administrative powers and the formulation and implementation of policy at regional and local levels. This right entails an obligation to ensure affected persons are provided sufficient information regarding proposed projects, especially those that will impact on exercise of other human rights, and have access to full and meaningful participation in project impact assessment and resettlement processes. The Human Rights Council has emphasized the state obligation "to provide information on assessments concerning environmental impacts on human rights," and that the public is "entitled to have access, to the fullest extent practicable, to information regarding the actions and decision-making processes of their government."

As noted above the feasibility and EIA studies involved very limited information and consultation with affected communities, meaning it was not possible to properly assess the project's impacts. Consultations conducted with villages in the reservoir area were not participatory, did not provide substantial information, and did not focus on critical issues.

5.2 Demographic Characteristics

More than 95% of respondents have lower secondary school including around 33% who never study. Member of surveyed households are large (37.2% of household have member from 5-9). All most all surveyed respondents are farmers and land ownership is very less (22.7% have legal land title or hard title) and only 19.9% of them have ID-Poor. In comparison between National Figures of ID-POOR at Rural Areas are around 80% and ID-poor in 9 villages is around 20%. Another point, CMDG 2013 shown that land title for agriculture is around 28% compared with people who are living in surveyed communes is only 22.7%.

Through analysis, surveyed population and general population in Sesan 2 are not poor, their social economic status is medium and some are high. Some houses made by cement and medium ha of land per household are around 5 ha. Animal feeding have been executed in every houses (Cow, Buffalo, pig raising). Focus

group discussions and key informant interview, average 10 cows, or buffalos in every households. In Krabei Chrom, They are living in a standard way-their living condition is better than other rural and remote areas. The household 'property is medium one in compared to other people who are living in high land and low land.

Table 4: Demographic Characteristics of the survey respondents

Table 1: Demographic Characteristics					
Demographic		**Male**	**Female**	**Total**	**Total N**
Age		%	%	%	
	<17	1.3	0.5	0.8	390
	17-25	20.3	17.4	**18.7**	390
	26-35	26.7	31.6	**29.5**	390
	36-45	23.8	21.1	**22.3**	390
	>45	27.9	29.4	**28.7**	390
Education					
	Never study	29.1	37.6	**33.8**	390
	Primary school	45.9	43.1	**44.4**	390
	Secondary school	16.9	14.7	**15.6**	390
	High school	8.1	4.1	5.9	390
	Vocational training	0	0.5	0.3	390
Marital Status					
	Single	10.5	9.7	10	389
	Married	84.8	81.1	**82.8**	389
	Widow/widower/divorced	4.7	9.2	7.2	389
	Total	100	100	100	389
			Frequency	Total	
Household members				%	
	Member of household 1-5		229	**58.7**	390
	Member of household 6-9		145	**37.2**	390
	Member of household 10-13		16	4.1	390
Occupation		**Male**	**Female**	**Total**	
	Farmer	93	91.3	**92.1**	390
	Small business	7	8.7	7.9	390
ID Poor		%	%		
	Have ID poor	19.9	20	**19.9**	381

	No ID poor	80.1	80	80.1	381
	Total	100	100	100	381
Land title-Ownership		**%**	%		
	Have land title	25.1	20.7	**22.7**	375
	No land title	74.9	79.3	77.3	375
	Total	100	100	100	375

5.3 Perception of affected community people on LSS2 Construction

Table 5: Perception of affected community people on LSS2 Construction

Perception on SESAN2	Male	Female	Total
Cancellation of Project	89.3%	96%	92.6%
Compensation (Fair, Just and Acceptable)	10.7%	4%	7.1%

It's very interesting that around 93% of surveyed respondents demanded for cancellation of SESAN 2 Hydroelectric dam construction compared with only 7.1% agreed to fair and just compensation. The average requested compensation in cash is USD 17,250 plus 65% of them demanded agriculture land from 2 to 5 ha per household. Additionally, 35% of them demanded from 6 to 10 ha of agriculture land. Confirming that almost all people who actively participated in focus group discussion and key informants they requested to cancellation. If Investment companies are eager to continue their project, surveyed villagers requested to pay them in $ cash, standard house + agriculture land and $ cash + Standard House and Agriculture with 30.8%, 42.3% and 26.9% respectively.

In conclusion, over 90% of surveyed villages have strongly requested to cancellation of SESAN 2 Hydro-electricity dam construction and the rest of surveyed villagers requested three main compensation (Cash =17,250$ plus standard house plus agriculture land). So within this assumption, Government of Cambodia and National Assembly should rethink to find the best way of SESAN 2 hydroelectric dam construction or cancellation of its project.

5.4 Proposed Compensation Package

Compensation and Resettlement Policies after Compulsory Land Acquisition for Hydropower Development

This section was extracted from the article "Compensation and Resettlement Policies after Compulsory Land Acquisition for Hydropower Development in Vietnam: Policy and Practice" by Pham Huu Ty 1, A. C. M. Van Westen 2 and Annelies Zoomers (2013)

When it comes to compensation for loss, it must not only be just or equitable, but also effective in benefiting the landowners[33]. That is to say that compensation in cash or land may not be sufficient to ensure that displaced people can restore and improve their livelihoods in the long term. This may require additional assistance such as training, *etc*.

Compensation for land is often complicated, particularly the estimation of land values. The *market value* is one option used. This is commonly defined as "the estimated amount that the land might be expected to realise if sold in the open market at valuation date after proper marketing between a willing seller and a willing buyer and they had acted knowledgeably, prudently, and willingly"[34] & [35]. *Fair market value* might be used exchangeable with market value, but there is a distinction between them. The fairness of market value herein reflects the estimated price for the transfer of a property between willing parties who have the respective interests of those parties. It is necessary to carry out the assessment of the price that is fair for those parties taking consideration on the respective advantages and disadvantages that each is able to obtain from the transaction. Meanwhile, market value entails the strong points that are not available to market participants generally to be ignored, and therefore the concept of market value is narrower than fair market value.[36] The International Valuation Standards 2011[37] also differentiates between price and value. Price is the amount asked, offered or paid for an asset, value reflects the opinion that the most probable price to be paid for an asset in an exchange or the economic benefits of owning an asset. Because of financial capabilities, motivations and special interest of a given buyer or seller, the price might not reflect the true underlying value. As a result, market price is quite distinct from market value; they are equal when the market must provide sufficient information, efficient marketing, and prevailingly rational expectations. We can understand that the market price implies the

[33] Knetsch, J.L. Property Rights and Compensation: Compulsory Acquisition and Other Losses; Butterworth & Co (Canada) Ltd: Toronto, Canada, 1983.
[34] Asian Development Bank (ADB). Compensation and Valuation in Resettlement: Cambodia, ADB, People's Republic of China and India; Report No. 9; ADB: The Philippines, 2007.
[35] International Valuation Standards Council. International Standard Framework. Available online: http://www.ivsc.org//sites/default/files/IVS%20Framework.pdf (accessed on 24 October 2013).
[36] Ibid 35
[37] Ibid 35

negotiable capability of market value between market participants. In case of involuntary land acquisition, the government alone or in alliance with investors are willing buyers, but the affected landowners are often not willing sellers. As pointed out by Miceli and Segerson[38] that the compensation paid to owners by using market price, whose land is taken, is systematically less than the amount owners would ask for their land in a consensual transaction because acquired land owners always response to compensation value by their subjective value or reservation price that reflects the market value. According to this understanding, compensation at market value often under-compensates unwilling sellers. However, it is very difficult to know the owner's subjective reservation price because self-interest induces owners to quote highly inflated values.[39] In addition, even landowners themselves may not know at what price they are prepared to sell. Another option is compensation at *replacement cost*. The replacement cost is equal to market value when the information about market value is reliable and comparable assets or acceptable substitutes are available for purchase. In most developing countries, however, conditions are insufficient to estimate market value and replacement cost, especially in remote and rural environment because the information on land prices is not reliable.[40]

Studies have suggested the Lower Sesan 2 project in Stung Treng could displace 5,000 people and adversely affect 100,000 more through a more than 9 percent drop in fish stocks in the Mekong Basin.[41] Despite the fact that the impacts of Lower Sesan 2 Dam on fishery and local communities in Cambodia will be huge—more than 250 villages ranging from villages at the dam site to those living by Cambodia's Sesan and Srepok River will be affected, dam operator's compensation plan seems to disregard this information. According to the document on compensation plan proposed by Hydro Power Lower Sesan 2 Co. Ltd., the operator of Lower Sesan 2 Hydropower Project, in 2012, only six villages—SraeKor 1, Srae Kor 2, Srae Kor Commune, Srae Sranok, Kbal Romeas, and Kbal Spean Srepok or Chrab—were listed on the company's document.

In June 2011, an opposition party lawmaker wrote a letter to the Prime Minister raising concerns related to the project and asking for clarification of the mitigation measures that will be put in place to limit the dam's negative impacts. The Prime Minister responded in July 2011, and soon after the letter was made

[38] Miceli, T.J.; Segerson, K. The economics of eminent domain: Private property, public use, and just compensation. *Found. Trend. Microecon.* 2007, *3*, 275–329
[39] Niemann, P.; Shapiro, P. Efficiency and fairness: Compensation for takings. *Int. Rev. Law Econ.* 2008, *28*, 157.
[40] Ibid 34
[41] http://www.refworld.org/docid/53b15c0c5.html

public.[42] The letter clarifies that the dam will flood 34,307 hectares and impact on 4,620 people (slightly less than stated in the 2008 EIA). The relocation areas will apparently be provided with electricity supply, and improved livelihoods compared to their previous location. The breakdown of land to be flooded by the project (83 hectares of residential land, 910 hectares of rice farm land, 307 hectares of fields, 17,806 hectares of State forest land, 10,564 hectares of land granted to private firms as land concession, and 4,638 hectares of river/lake areas).

The letter states that a request has been made for the company to deposit a fund equaling 8.27% of the total project value for dealing with project impacts - which if the total cost of the project is US$816 million, equals almost US$67.5 million. It should be noted that this is about half of the budget estimated in the 2008 EIA (US$127 million) as being necessary for adequately mitigating the project's impacts. In addition, the company will also invest approximately US$14.5 million to clear the reservoir land area before it is submerged.

According to the government, relocated villagers will be provided with 1,000 square meters (10,760 square feet) of land to build new homes and 5 hectares (12 acres) of land for each family to grow crops. Around 910 hectares (2,250 acres) of villagers' land will be affected by the project, but the government has reserved about 4,060 hectares (10,030 acres) as compensation.

The LSS2 project will flood community land in three communes and 6 villages. The compensation and resettlement process for the LSS2 dam has lacked transparency and has not been carried out in a consistent manner. The communities to be relocated for the project have not been adequately informed or consulted regarding the compensation and relocation plans, which were developed without their input.

The communities of Sesan District in Stung Treng were unhappy and make statement to reject the “Mechanisms and Procedures of Compensation and Resettlement Policy of Lower Sesan 2 in Stung Treng” which was signed on 17 January 2014 by H.E Suy Sem Minister of Mines and Energy and the Chief of Inter-Ministries Committee” and the “Compensation and Solution Policies on Impacts of Lower Sesan 2” prepared by Hydropower Lower Sesan2 Co., Ltd.

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[42] Letter from Prime Minister Samdech Hun Sen, 28 July 2011.

Compensation package as per the community

The compensation demanded by the community and compensation proposed by company (Royal Group and Chinese Firm Hydrolancang International Energy Co.,Ltd), is quite different. Around 7% of Surveyed community people in 9 villages have proposed an average **USD 17,250** plus 5 ha of agriculture. But 16 families in Phluk commune have accepted an offer of between USD 8,000 to USD 20,000 in compensation for their houses and land to avoid living in a resettlement (According to Tuon Taing Phluk Commune chief). The RGC proposed compensation include land for housing (25mx 50m) plus 5 ha of agriculture land. This survey found that compensation should be at least USD 108,126 (Table below) for each household in the community. So in conclusion, the survey proposed the method of fair and just compensation as following;

However, Approximately 90% of surveyed villagers requested cancellation of SESAN Hydroelectric dam construction at this stage. Through field visit, the construction is going on (one third of construction).

Average market price participatory calculated by surveyed participants

Description	Average market price
Average cost of house	USD 11,785
Average cost of land	USD 25,477
Average cost of permanent farm	USD 26,304
Average cost of non-permanent farm	USD 27,216
Average cost of fruit tree	USD 7,851
Average cost of animal	USD 9,493
Total average for each household	USD 108,126

Please see detail data in the annex

Compensation for burial and spiritual forests for each indigenous communities

Of 9 surveyed villages in three communes in Sesan District, Stung Treang Province are indigenous people. In Cambodia, all Indigenous communities are

serving and respecting their religion such as traditional farming, community burial forest, community song, relocation ceremony, spiritual forest and so on. All 9 surveyed villages found that they have its own common property not only indigenous community but also burial and spiritual forest. Through key informant interview, each community have at 5 ha of burial forest land and 3 ha of spiritual forest land. So compensation calculation for each community/village should be highly considered in maintaining and preserving their traditional forest especially burial and spiritual forest. Importantly, indigenous communities are restricted in praying after relocation. Relocation of each community and individual household always spend around USD 3,000 to USD 4,000 and individual household always spend around 1,000 to USD 2,000. So those requirements are important for government and invested companies to include in their compensation.

Based on the household monthly income is around USD 387, so the compensation should be considered the loss of economic opportunity. Loss of economic opportunity estimated around 12 months. The cost for 12 months is USD 4,644.

In depth Analysis of socio economic status of surveyed villages found that monthly average household income is high around USD 387 and monthly household expenditure is below income or around minus USD6. However, household saving as of Dec 2014 is average 4,873. So Socio Economic status is pretty good at this stage and compensation for them should be based on their owned property rather than guess work.

Table 6: Household Income and expenditure

Monthly Household Average income	USD 387
Monthly Household Expenditure	USD 393
Monthly Household Saving household saving as of Dec 2014 is 4,873	USD 6However,

In comparison with Gross Domestic Products (GDP) per capita, around USD 1,045 in 2014 (MEF report 2014) for each person per year. So comparative analysis between incomes of surveyed indigenous community are higher than GDP per capita. So the method of compensation should not exclude their

monthly income because the start-up of business to earn income with at least 6 months to 12 months.

Please see detail in annex

VI. Conclusions

In case of The Lower Sesan 2 dam (LSS2), there is failure on the part of the RGC to fully enforce existing laws; ensure an effective regulatory framework for the development of hydropower projects, including adequate communication, consultation, and human right, social and environmental protection. The rights of communities and particularly indigenous peoples to information, consultation and participation in decision-making on decisions that will affect the exercise of numerous other human rights, have been infringed. It has impact on the right to adequate housing and freedom from forced evictions; the right to an adequate standard of living including rights to food, health, water and adequate livelihoods; indigenous people's rights to self-determination and cultural and community integrity; right to culture; and the right to a healthy and sustainable environment.

The Lower Sesan 2 dam (LSS2) will be increasing pressure on Cambodia's water resources and affecting its quality and availability and livelihood options of villagers. It is important for local stakeholders and local communities to engage in a dialogue that considers how hydro-electric dam construction can be more sustainable.

Agriculture such as fishing, farming, and benefits of forests continues to be the main source of livelihoods for the majority of surveyed villagers in 9 villages of SESAN district, Stung Treng Province and the key to be sustainably livelihood optioned. Inclusive and sustainable growth for villagers who are living in upstream, downstream and areas of The Lower Sesan 2 dam (LSS2) construction is required including community participation in assessment, increase agricultural productivity and incomes while preserving Cambodia's environment and natural resources. Over 90% of surveyed villagers in three communes of The Lower Sesan 2 dam (LSS2) are farmers and more than 90% strongly requested to cancel The Lower Sesan 2 dam (LSS2) hydro-electricity dam construction.

The compensation demanded by the community and compensation proposed by company (Royal Group and Chinese Firm Hydrolancang International Energy Co.,Ltd) and the government is quite different. This survey found that compensation should be at least USD 108,126 for each household in the community. Existing compensation approach in ASAMIKOR Law should be

reviewed and amended for practical and feasible implementation and enforcement.

Compensation applied by Invested companies and government formula did not include income during the start-up of business a year and community property (Burila forest and spiritual forest). The traditional ceremony especially relocation praying ceremony were also excluded in compensation.

VII. Recommendations

Recommendation1. Government should halt construction of the LSS2 project and conduct again transparent EIA study in full consultation with the affected community. Government should ensure full compliance with obligations under international human rights law, international environmental law, and the UN Principles and Guidelines on Development-Based Evictions and Displacement:;

Recommendation2. Fair and Just Compensation: Government should made public a comprehensive resettlement policy and plans consistent with human rights principles and made public before relocation occurs; and obtain the free, prior, and informed consent of indigenous communities to compensation and relocation measures. Investment Companies should compensate to individual household who are affected The Lower Sesan 2 dam (LSS2) based on market price survey pay in fair and just compensation based on community owed property (Housing land, Agriculture Land, Animal and burial forest, spiritual forest , cost for one year opportunity and cost for relocation). The market price from this survey varied from 10,000 to 108,126 USD.

Recommendation3. Cost for relocation for each household and each community should be strategically discussed and consulted with community people. The average cost for each household is USD 2,000 and average cost for each community is around USD 4,000 per communities as compensate to their relocation ceremony.

Recommendation4. Compensation for the loss of economic opportunity cost. The average of yearly income is around USD 4,644. So for each household, government and invested companies should pay them at least USD4, 644.

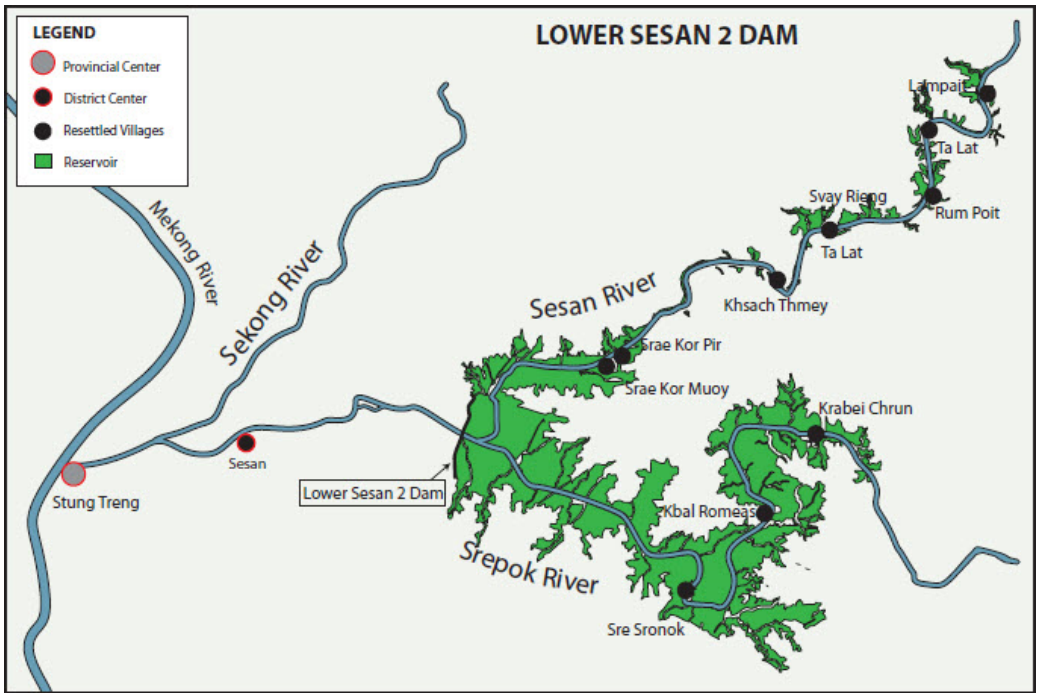
Recommendation5. Investment Companies should consider the proposed compensation in the three forms (Cash, housing land, Farm Land, Burial land and spiritual land) through participatory discussion with indigenous communities and local authorities.

Recommendation6. Compensation to common property such as Burial forest land (Average 5 ha), Spiritual Forest Land (3 ha).

Recommendation7. Laws and Policies especially compensation approach associated with hydro-electricity dam construction should be reviewed and amended after consultation with the community and relevant stakeholders.

Annexes

Annex a. Map/Study Area



Annex B. Detail Data

2.3 Money need	Frequency	Total	Total N
Dollar		%	
<2500	1	4.5	22
2,500-10,000	17	77.3	22
10,001-100,000	4	18.2	22
Total average of money need US $ 17,250			22

3.2 Cost of the house	**Frequency**	**Total**	**Total N**
		%	
<1,200	116	30.9	376
1,200-5,000	73	19.4	376
5,001-20,000	139	37	376
20,001-95,000	35	9.3	376
>95,000	13	3.5	376
Total average cost of house US $ 11,785			376

	Frequency	Total	Total N
3.3 Cost of land		%	
<1,000	35	9.9	352
1,000-5,000	99	28.1	352
5,001-20,000	132	37.5	352
20,001-60,000	54	15.3	352
>60,000	32	8.2	352
Total average cost of land US $ 25,477			352

	Frequency	Total	Total N
3.4 Cost of farm permanent		%	
<1,000	10	3.5	284
1,000-5,000	73	25.7	284
5,001-20,000	105	37	284
20,001-60,000	72	25.4	284
>60,000	24	8.5	284
Total average cost of farm permanent US $ 26,304			284

	Frequency	Total	Total N
3.5 Cost of farm non-permanent		%	
<1,000	9	6.2	146
1,000-5,000	35	24	146
5,001-20,000	57	39	146
20,001-60,000	30	20.5	146
>60,000	15	10.3	146
Total average cost of farm non-permanent US $ 27,216			146

	Frequency	Total	Total N
3.7 Cost of tree		%	
<1,000	124	35.7	347
1,000-5,000	108	31.1	347
5,001-20,000	85	24.5	347
20,001-60,000	22	6.3	347
>60,000	8	2.3	347
Tree cost average US$ 7,851			347

	Frequency	Total	Total N

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FACT

3 S River Protection Network

MY VILLAGE

CEPA Culture and Environment Preservation Association

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About the Rivers Coalition in Cambodia
The Rivers Coalition in Cambodia is an advocacy and information-sharing alliance of national and international civil society organizations dealing with the impacts of hydropower dam projects on the environment and local communities. For more information, please contact: ngoforum@ngoforum.org.kh

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