

Report on Baseline Survey Communities Awareness about Biodiversity Conservation

Research Team

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1. Introduction

SCW was implementing Community Empowerment for Biodiversity Conservation along Sesan and Srepok Rivers of Mekong Basin Project. Target area in 4 districts 6 communes and 37 villages. The majority of the villagers living in 3S areas are heavily dependent upon its natural resources. The main source of income of these communities is generated from farming, fishing, non-timber forest products, small-scale trading, and hired labour.

The overall objective of project to encourage local communities and relevant stakeholders participate in the dam construction and other development process such as land use management and natural extraction practice. Local people more involve in biodiversity sustainable management and conservation along the Sesan and Srepok rivers. Moreover, project objective achievable by mainstreaming the important endanger species and biodiversity along the riverbank to local communities and relevant stakeholders. Local people participate in consultation process about dam construction and other developments project.

Communities support from all stakeholders such as NGOs/OIs, the program of Provincial Committee for Rural development, Civil Society and Pro-poor market/Livelihood&NRM, private sectors and Commune Council Fund in the project implementation process is very important as it will help the development of alternative livelihood options focusing on the possibilities associated with local resources.

Moreover, the conducting baseline study in order to collect all relevant information on awareness about biodiversity conservation in local community and the important of natural resources for project implementation. The improvement of livelihood is one of the important parts to a clear awareness in the communities for their own interest in contributing to the sustainable use of the areas.

2. Research Objective

Baseline study has main objective:

- Study on the level of communities' awareness about biodiversity conservation.
- Natural resources and resources change in target area especially resources which community depending on.

3. Research Methodology

Baseline implemented by:

- **Questionnaire designing:** questionnaire designed based on local communities' understanding and baseline's objective about biodiversity conservation. We separated questionnaire in four different parts: part 1 general information, part 2 the level of awareness about environment and natural resources, part 3 awareness focus on socio-economics. Otherwise, there are two types of questionnaire were individual and focus group discussion.
Questionnaire designing also founded on general knowledge of local people in community, monk, teacher, and commune councils. Meanwhile, questionnaire type 1 for local people and type 2 for commune councils and teacher who received more training.
- **Sampling:** the formula for selecting based on Yamane, 1967 with 10% standard of error.

$$n = \frac{N}{1 + Ne^2} \quad (n = \text{sampling size} \quad N = \text{Total household} \quad e = \text{error } 10\%)$$

- **Interviewing methodology:** selected target people by change in target area for individual interviewed using easy and simple questionnaire.
- **Analyzis:** Collected data entire in excel table and analyse in SPSS program for frequency, percentage and graph to interpret data.

4. General Information

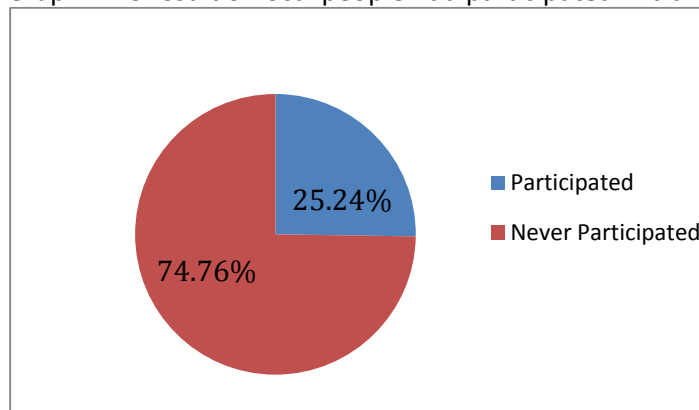
Ratanakiri is located in the northeastern of Cambodia 588 Km from Phnom Penh on national road 6A, national road 7 and national road 78. Within 10,782 square kilometres on the north closed with Ad Peu about 165 Km length of Republic of Lao, on the east closed with Yali of Vietnam 210 Km length, on the south closed with Mondul Kiri and Stung Treng province Cambodia. Ratanakiri divided in 1 Krong 8 districts with 3 Sangkat, 46 commune, and 240 villages. Provincial municipality is Krong Banlung total population 150,466 persons which female 74,351 persons equal to 27,596 families with 8 different indigenous groups such as Charay, Kreung, Tompoun, Phnong, Proav, Kacork, Kavet and Lao represent 75% of people in the province and density 14 person per square kilometer. It is located in upland, valleys, lakes and mountains with 30% of fertilizer land for crop and agro-industrial. Ratanakiri have a lot attractive sites for tourism sector. Moreover, this province have two rivers Sesan and Srepok with source from Vietnam.

5. Result of the study on environment and natural resources awareness

5.1 Training Participation

Based on data analysis showed there are 25.24% of interviewee had participated in the training about environment and natural resources while 74.76% never participated.

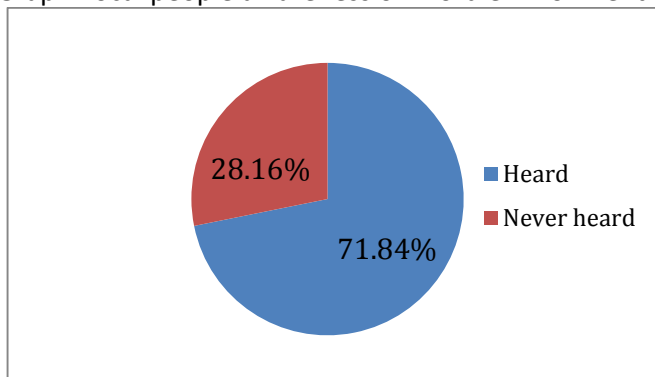
Graph: The result of local people had participated in training



5.2 Heard about environment

Based on data survey analysis there are 71.84% of local people heard about environment from radios, televisions, informal discussion with elder in village but among those some of them felt confuse the word environment meant the ranger in national park. However, 28.16% never heard because of they are busy with agricultural activities hunting finding NTFP supporting their family that the reason they never heard or understand about word environment.

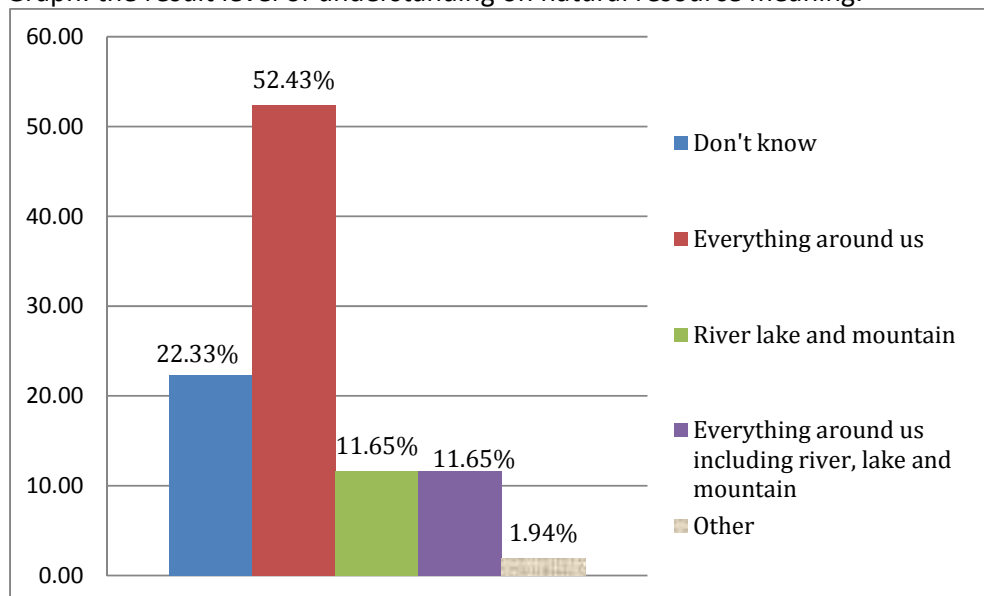
Graph: local people awareness on word environment.



5.3 Understanding on Natural Resource

According to the result of survey there 22.33% of local people don't know the meaning of natural resource contrast with 52.43% understand that it is everything on earth such as wind, soil, food, water, forest, mine etc. However, 11.65% of local people think natural resource means river, lake and mountain while 11.65% think it everthing important including river, lake and mountain. On the other hand there are 1.94% of interviewee it is muddy and forest along the river bank in their village.

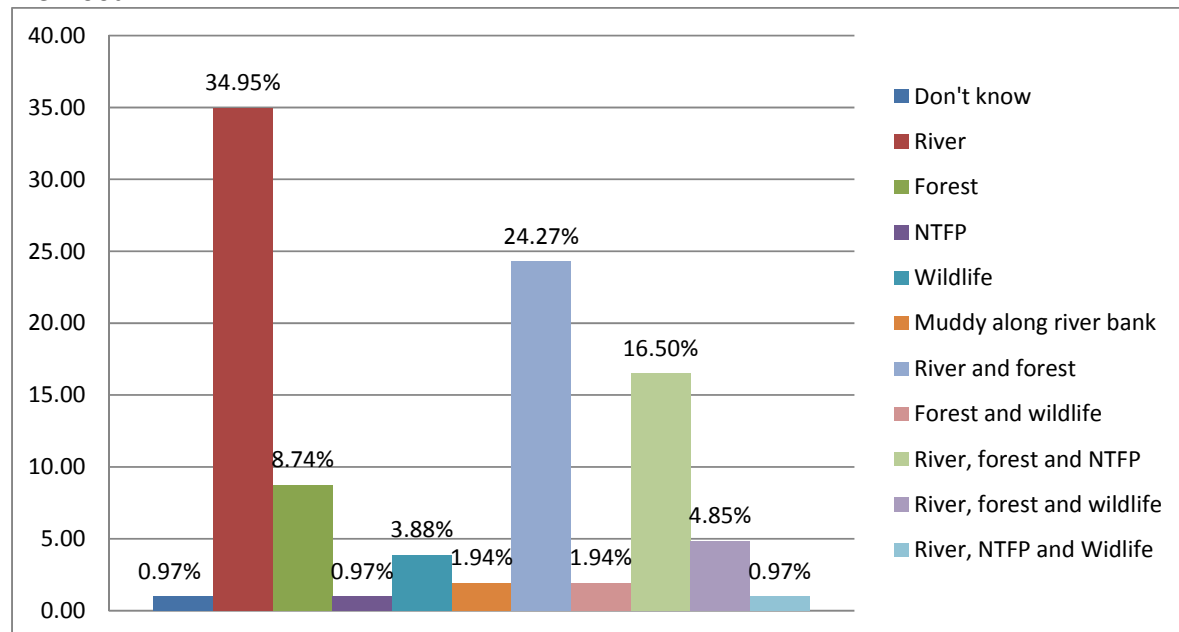
Graph: the result level of understanding on natural resource meaning.



5.4 Understanding the important of natural resources for them

Based on data analysis 34.95% of local people addressed natural resources that very important for them is river while 24.27% replied river and forest is the most important natural resource for supporting their livelihood. However, 0.97% addressed the most important natural resources for them is NTFP also other 0.97% the most important natural resource is river, NTFP and wildlife. In contrast 0.97% doesn't know which natural resources important for their livelihood because of illiteracy and poverty.

Graph: the result level of understanding the important of natural resources supporting their livelihood.



5.5 Main important reasons cause natural resources changed

In accordance with the result of survey showed the main important causes from 1 to 12 made natural resources changed:

1. Growing population of outsider
2. Forest encroachment for new farm land
3. Deforestation
4. Illegal wood and wildlife trading
5. Dam construction in Vietnam
6. Illegal fishing gear (electricity and bomb)
7. Limitation of law enforcement
8. Civil war
9. Illegal hunting
10. Flooding
11. River bank erosion
12. Crop growing along river bank.

5.6 Main solution for natural resources changed

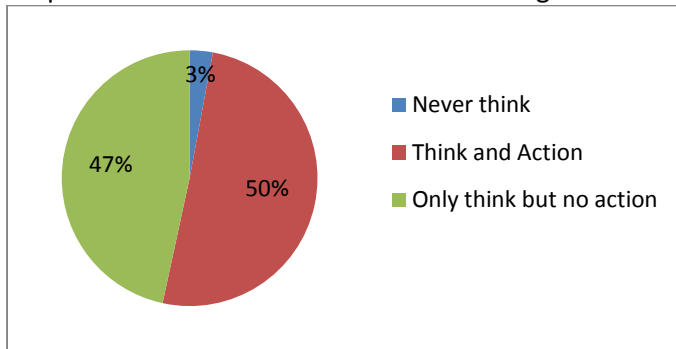
Founded on the result of survey demonstrated the coherent solution from 1 to the last addressed by community in target area:

1. Participating from all villagers to conserve and protect.
2. Form community natural resources protected committee
3. Stop forest encroachment for new farm land
4. Improve agricultural activities
5. Stop dam construction
6. Law enforcement efficiency
7. Stop illegal tree cutting and hunting
8. Stop illegal fishing gear
9. Stop outsider migration to their community

10. Stop land concession
11. Stop vegetable growing along river bank
12. NGOs disseminate relevant laws to villager.

Based on the result of data analysis 3% of local people never interested in natural resources changed issue while 50% of local people interest in finding solution but never used or discussed with elder, addressed in village meeting because they think there not their business or no power to solve these problems only local authorities and line departments in charge. Moreover, 47% discussed the solution with their family members, village leader, elder, and in village meeting for suitable solution and raising concerns which impact to their job and livelihood local authorities and line departments.

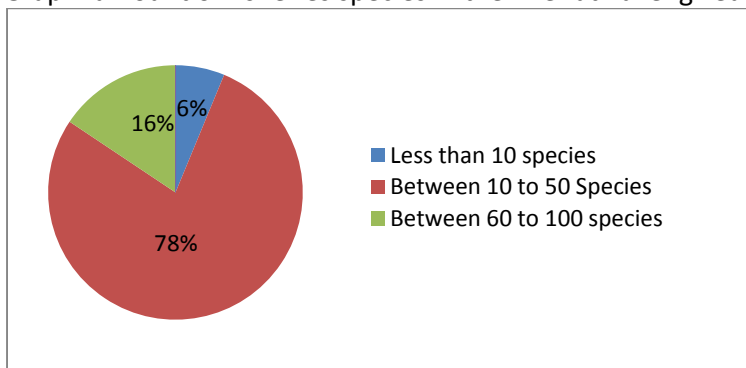
Graph: Interested in natural resources change solution.



5.7 fisheries species in commune according to respondent

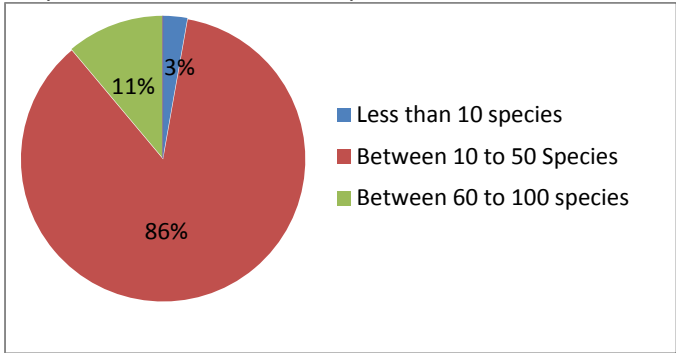
a. Taveng Leu commune: rooted in data analysis there 6% said in their river have least than 10 different species while 16% said there are betew 60 to 100 species and other 78% of respondent replied there are between 10 to 50 differents species in their river.

Graph: amount of fisheries species in the river at Taveng Leu commune.



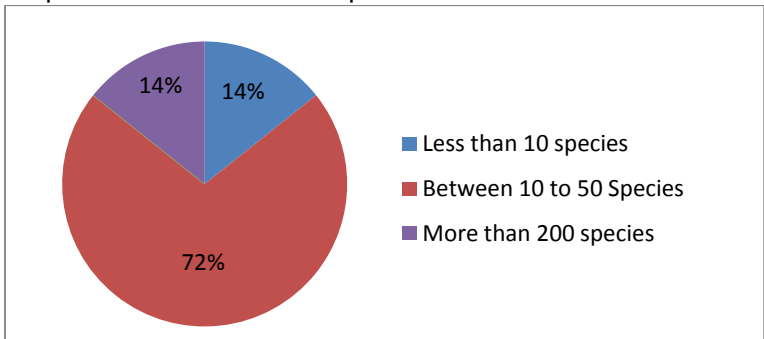
b. Taveng Krom commune: rooted in data analysis there 3% said in their river have least than 10 different species while 11% said there are betew 60 to 100 species and other 86% of respondent replied there are between 10 to 50 differents species in their river.

Graph: amount of fisheries species in the river at Taveng Krom commune.



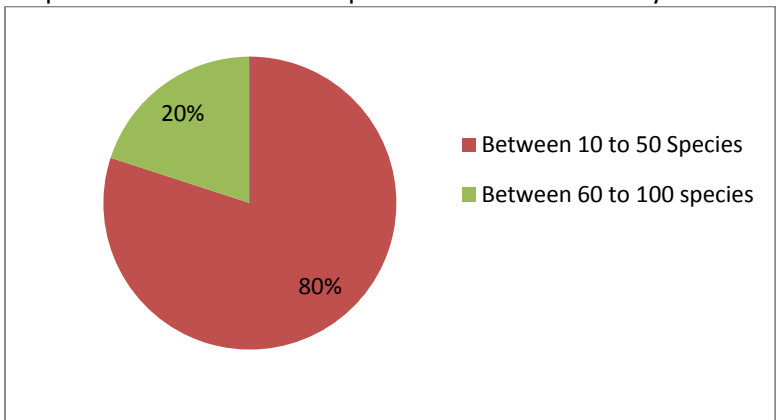
c. Talav commune: based in data analysis there 14% said in their river have least than 10 different species while 14% said there are more than 200 species and other 72% of respondent replied there are between 10 to 50 differents species in their river.

Graph: amount of fisheries species in the river at Talav commune.



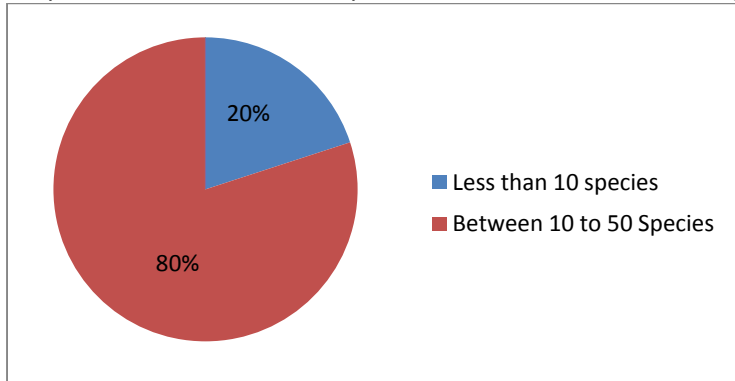
d. Chey Otdom Commune: rooted in data analysis there 20% said in their river have between 60 to 100 different species while 80% replied there are between 10 to 50 differents species.

Graph: amount of fisheries species in the river at Chey Otdam commune.



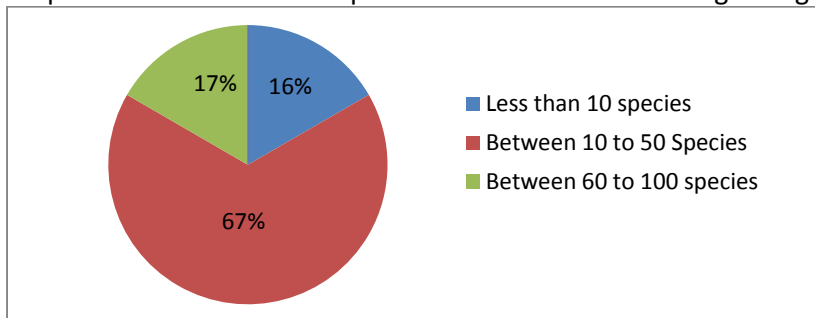
e. Serei Mongkol Commune: rooted in data analysis there 20% said in their river have least than 10 different species while 80% replied there are between 10 to 50 different species in their river.

Graph: amount of fisheries species in the river at Serei Mongkol commune.



f. Sераe Angkrong Commune: rooted in data analysis there 16% said in their river have least than 10 different species while 17% said there are between 60 to 100 species and other 67% of respondent replied there are between 10 to 50 different species in their river.

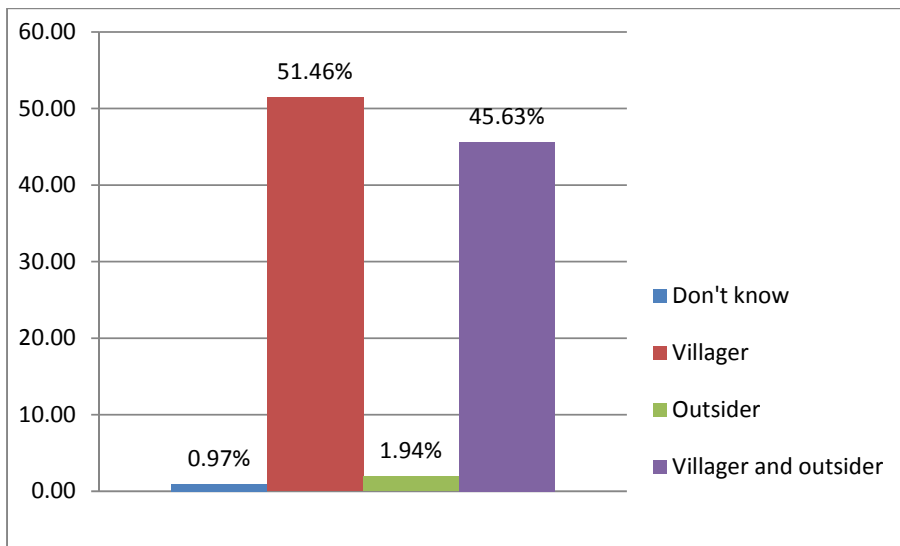
Graph: amount of fisheries species in the river at Sераe Angkrong commune.



5.8 Awareness on whom depending on natural resources

According to the result of data analyzing there are 51.46% replied only their villager depending on natural resources in village but 45.63% replied both outsider and villager are depending on natural resources in village. However, 1.94% responded only outsider depending on their natural resources in village while other 0.97% don't know about that point.

Graph: awareness on local people depending on natural resources.



a. Fishing Gear

Fishing activities in target area done in small scale for supporting their family by using trap, net, fishing outfit, chan, cast net etc. And for the popular fishing gears for local people are net, fishing outfit, and cast net.

b. Tree cutting materials

Local people used material in cutting tree for building house, clearing forest for new farm by saw machine, long knife and axe.

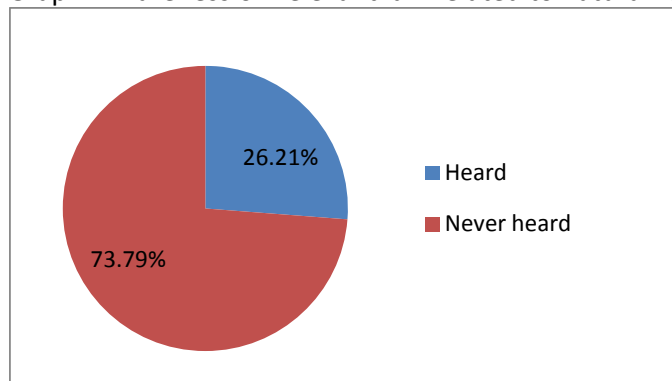
c. Hunting materials

In target area local people go hunting only for support their family's need by using trap and crossbow.

d. Awareness on relevant law(Fishery, Forestry, Land, and Environment Law)

Based survey's data 73.79% of respondent never heard related to relevant law because they never participated in the training or dissemination about the law such as fishery law, forestry law land law or law about protected area. However, there are 26.21% of respondent replied they used to hear about relevant law but very basic level. Forestry law was the most that local people heard.

Graph: Awareness on relevant law related to natural resources.

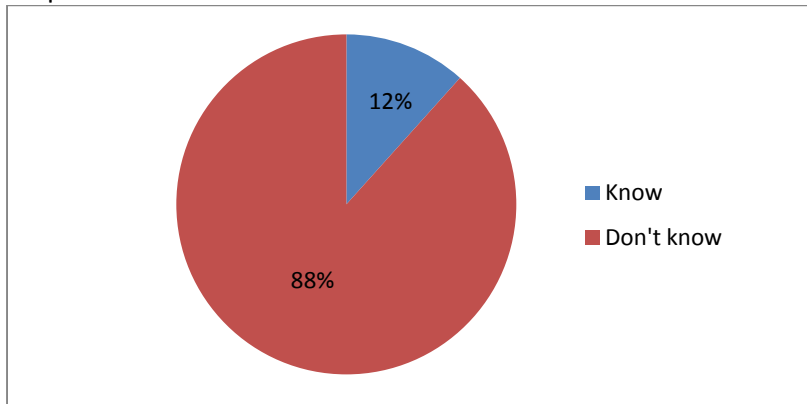


6. Socio-Economic Awareness

6.1 Community Investment Plan (CIP)

Founded on data analysis 12% of respondent used to hear about CIP who most of them are teacher and commune councilor in contrast with 88% of respondent never heard about CIP.

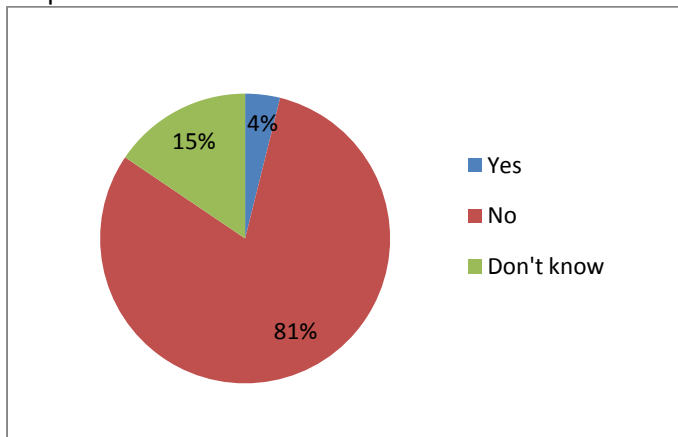
Graph: The level of awareness on CIP



6.2 Dam Construction

The result of data analysing 4% of interviewee replied thier village have dam construction plan in Srepok and Sesan river moreover they said it will be have negative impact such as irregular flooding and fish extinct if dam were construction. However, there are 15% of respondent don't any information related to dam construction plan while other 81% replied there are no dam construction plan in ther area.

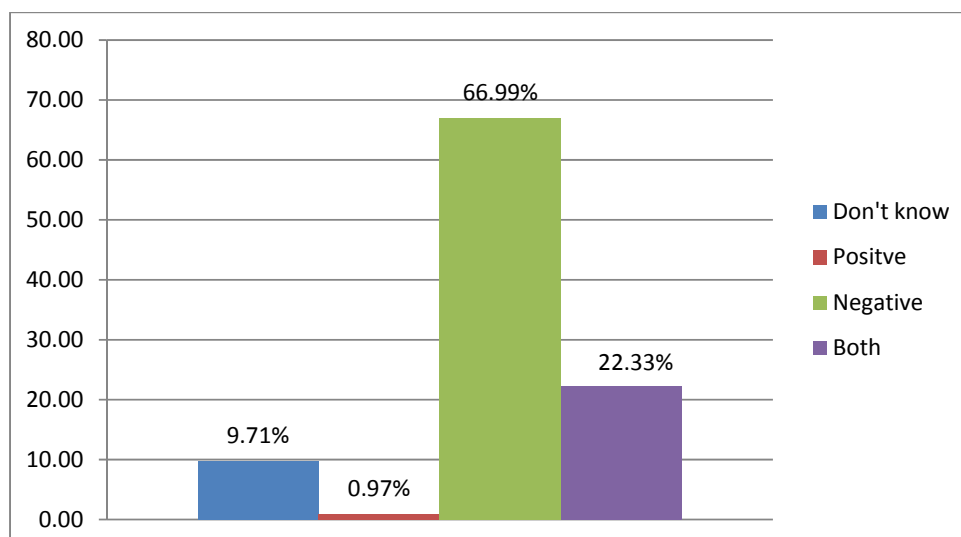
Graph: Level of known information in dam construction.



6.3 Local people opinion on dam construction

Based on survey result there are 9.71% don't know about the positive or negative impact for dam construction. But there are 0.97% of respondent thought it will be have positive impact because it can access electricity for country development. However, 66.99% replied it will be negative impact because remove local people near dam site that make they faced with lost time to earn money for supporting their livelihood, flooding (they lost forest, home, chamkar, rice field, animals, animal habitate etc), irrigrular flooding, fishes extinct, and riverbank slide. In the other hand, 22.33% responed dam construction makes both negative and positive impact for positive impact are provide electricity and infrastructure for develop country and negative impacts as mention above.

Graph: Local people opinion on the impacts of dam construction.



7. Conclusion and Recommendation

7.1 Conclusion

According to the result of survey showed the people livelihood in target area basically depending on natural resource in their community. In for future their natural resources threaten by different case but the main case is human activities. So far, if still no effective mechanism for management and used in sustainable manner natural resource and local people around this area will be the most vulnerability.

Moreover, we also observed the level of people awareness is really limited on natural resources and/or relevant law which they depending on such as land law, forestry law, fishery law, protected area law, and other legal documents that most important in sustainable natural resources management.

7.2 Recommendation

Although, project should implement to improve awareness on environment and biodiversity conservation such as:

- Disseminate to local people participatory community natural resource management
- Provide training to key person in village about awareness on environment, natural resource management, and relevant law.
- Improve corporation and discussion for raising concern to local authority and line department in natural resources management
- Encourage local people to form community and committee to maintain biodiversity conservation in effective especially supporting from local authority and line departments.

