



Planning community climate change adaptation: Answer

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Planning community climate change adaptation



Climate driven risk

- Household damage
- Decline fishery
- Decline NTFPs
- Crop damage
- Etc.



Loss income
Livelihood interfered
Etc.



Socioeconomic change



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Community A: Rice paddy farmer

Current Risk

Reduced household income caused by crop damage from flood in high rainfall year

Future risk & concern

- Higher risk caused by expansion of rice paddy into flood prone area and higher frequency and magnitude of high rainfall year.
- Emerging risk on dry season rice damage caused by limited water supply due to higher demand of water from expanding town.

Adaptation pathway / option

- Income diversification to other agriculture product.
- Livestock
 - Controlled environment farming, e.g. mushroom
 - Switch dry season rice to crops that use less water

Short-term & Long-term benefit

Increase income diversity and opportunity to increase total household income. Also, enhance resilience of community toward future risk.

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Community A: Villager

Current Risk

Household damage from flood

 Reduced household income from low fish capture in the dry year

Future risk & concern

- Lower risk on household damage from flood by new dam.
- Higher risk on reduced household income from reduced fish stock in natural habitat as impact from the new dam.

Adaptation pathway / option

- Implement fish sanctuary in the river to maintain fish stock
- Aquaculture in dam reservoir and high intensity aquaculture in village e.g. snail, eel, frog, etc.

Short-term & Long-term benefit

Increase income from higher fishery production. Also, ensure supply for fishery in the long term.

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Community B: Hillside Rice paddy farmer

Current Risk

Reduced household income caused by rice damage from fluctuation in rainy season onset

Future risk & concern

- Higher risk caused by higher fluctuation of rainy season onset.
- Emerging risk from loss of soil fertility which leads to lower rice productivity as rice farming will be based on fixed farmland as a result of forest conservation policy and higher rainfall intensity in the future.

Adaptation pathway / option

- Switch agriculture system from rice to other perennial crops

Short-term & Long-term benefit

Perennial crops are more resistant to fluctuation of rainy season onset and help reduce soil erosion in the long term

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Community B: Villager

Current Risk

Household damage from flashflood caused by heavy rainfall event.

Reduced household income from less NTFP availability caused by prolonged summertime.

Future risk & concern

- Higher risk caused by higher frequency of heavy rainfall event.
- Higher risk on reduced household income due to longer summertime in the future could lower the NTFPs availability and overexploitation of NTFPs by people from outside the village.

Adaptation pathway / option

- Implementing eco-tourism and homestay as new source of income.
- Improve household design/material to cope with more serious flashflood in the future.
- Produce NTFP at household e.g., bee farming, etc.
- Implementing controlled NTFPs harvesting regulation of avoid over harvesting.

Short-term & Long-term benefit

New source of income for villager and improve resilience in both short-term and long-term. The regulation on NTFPs harvesting will guaranty NTFPs supply in the long term.



THANK YOU