



Hoa Binh Hydropower: Impacts on resettled and downstream communities

By Lawyer Dan Tiep Phuc

Hoa Binh Union of Science and Technology
Association

PRESENTATION OUTLINE

- Overview of Hoa Binh hydropower project
- Current situation of relocated communities
- Current situation of downstream communities
- Conclusion
- Recommendation

FIELD TRIP IN HOA BINH

Overview of Hoa Binh province

- ➔ Located in the Northeast of Vietnam.
- ➔ 90 km far from Hanoi

Hoa Binh field trip

- ➔ Visit Hoa Binh Hydropower Plant
- ➔ Visit Yen Mong commune



OVERVIEW OF HOA BINH HYDROPOWER PROJECT

- Construction phase: Started from 1979
- Operation phase: Started from 1994
- Capacity: 1.920 Megawatt
- Relocated: 11.141 households (89.720 people)





CURRENT SITUATION OF RESETTLED COMMUNITIES

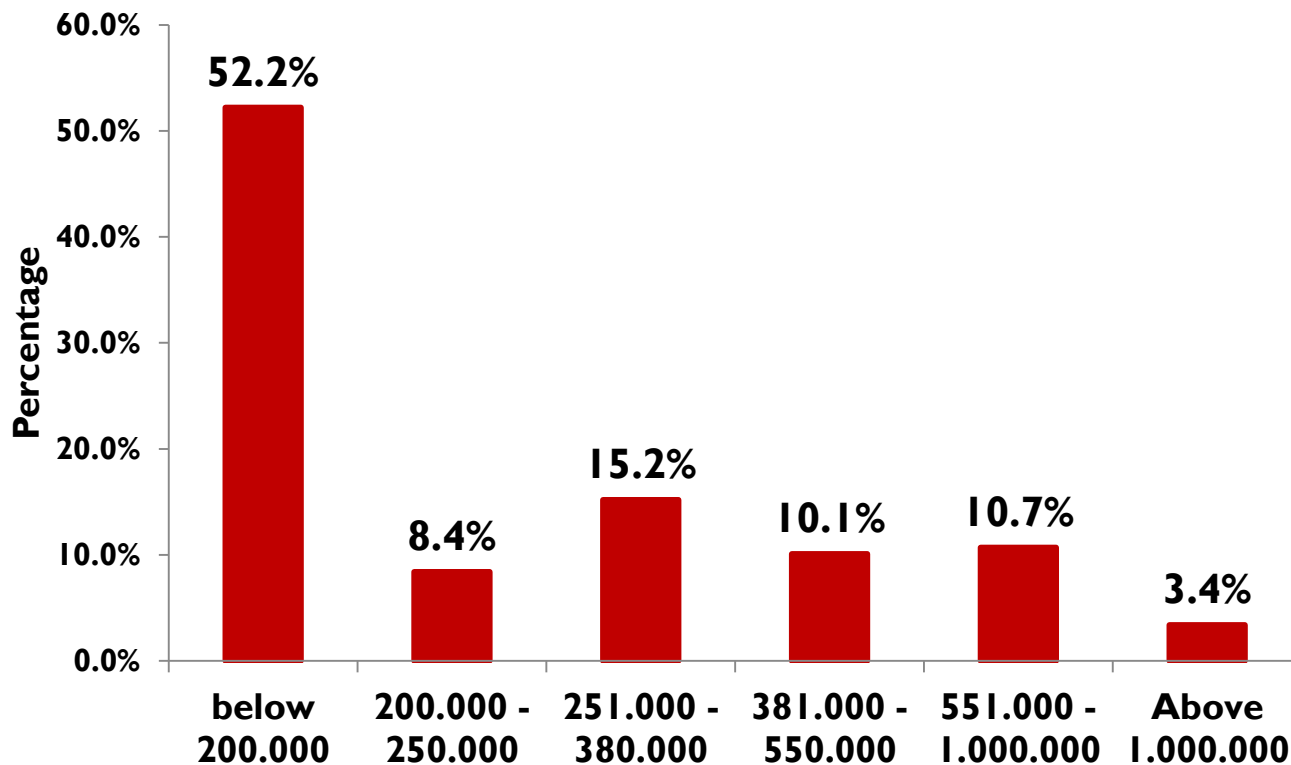
CURRENT SITUATION OF RELOCATED COMMUNITIES

Income: survey from 180 people from relocated area

Communes	Average income per month (thousand VND / capita / month)				
	200-250	251-380	381-550	500-1.000	Trên 1.000
Suối Nánh	1,7%	1,7%	0,6%	0,6%	0,6%
Yên Hòa	3,9%	7,9%	2,8%	7,3%	1,1%
Vây Nưa	2,8%	5,6%	6,7%	2,8%	1,7%
Total	8,4%	15,2%	10,1%	10,7%	3,4%

CURRENT SITUATION OF RELOCATED COMMUNITIES

Income



Income (per month) of relocated communities

- ✓ 94.4% reliant on agriculture with very low income
- ✓ Only 0.6 % benefit from small bussiness

CURRENT SITUATION OF RELOCATED COMMUNITIES

Land for agricultural production

Very limited area for agricultural production



Could not meet food requirement of households

- 25% households have land for double crop rice (below 350 m² per capita 53.3%; above 350 m² per capita: 46.7%)
- 20 % householders have land for single crop rice (below 350 m² per capita 66.7%; above 350 m² per capita: 33.3%)
- 12.3% households have upland rice (below 350 m² per capita 36.4%; above 350 m² per capita: 63.6 %)

CURRENT SITUATION OF RELOCATED COMMUNITIES

Land for forest plantation and aquatic production

- 36.5% households have forest land with area above 5000 m² per capita
- 65.5% households have forest land with area below 5000 m² per capita.
- Only 7.2 % have area for aquatic production



CURRENT SITUATION OF RELOCATED COMMUNITIES

Water Resources for domestic uses

- Only 31.1 % use water from public supply system for domestic purposes.
- 63.8 % use surface water for domestic purposes
- 1.7% use underground water for domestic purposes

Water Resources for irrigation

- Only 25.1 % benefit from irrigation system
- 74.9 % dependent on natural resource such as rainy water



Public water supply system did not meet requirement of all households in relocated communities

CURRENT SITUATION OF RELOCATED COMMUNITIES

Restrictive credit policy and livelihoods of households

68% households under survey borrowed from banks in 2008.

Among them:

- For bussiness and production: 47.1%
- For food: 28.1%
- For education 14.9%
- For health care: 17.9 %
- For house repair: 24.8%
- For households equipments: 7.4%



CURRENT SITUATION OF DOWN STREAM COMMUNITIES

CURRENT SITUATION OF DOWNTREAM COMMUNITIES

Average income

Hamlet	<i>Average income / capita / month</i> <i>(thousand VND / month)</i>				
	<i>≤ 250</i>	<i>251-380</i>	<i>381-500</i>	<i>501-1,000</i>	<i>> 1,000</i>
My	15.7%	26.4%	19.6%	37.7%	0.6%
Thia	20.9%	30.1%	20.8%	27.1%	1.1%

CURRENT SITUATION OF RELOCATED COMMUNITIES

Restrictive credit policy and livelihoods of households

67.8 % households under survey borrowed from banks in 2010.

Among them:

- For bussiness and production: 70.1 %
- For food: 2.1 %
- For education 14.9 %
- For health care: 4.1 %
- For house repair: 24.8 %

IMPACTS ON DOWNTREAM COMMUNITIES

Impacts on agricultural production

- Landslides have been increased since hydropower dam started operation (6 ha of My hamlet are under landslide)
- Worse flooding due to water discharge from hydropower in rainy season => crop damage
- Water shortage in dry season => could not meet irrigation demand

IMPACTS ON DOWNTREAM COMMUNITIES

Impacts on water resource and aquatic production

- Water shortage in dry season
- Water polluted due to oil and grease from hydropower dam operation and other industrial plants.
- Natural aquatic resource have been decreased since 1990
- Water polluted and not meet requirement for aquatic production.



CONCLUSION AND RECOMMENDATION

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Conclusion

Relocated communities

After 30 years, relocated communities are still facing with many difficulties in term of income, land for agricultural production, access to infrastructure and water resources.

Downstream communities

Downstream areas are under water shortage in dry season, worse flooding in rainy season, landslide etc.