CARIAA
Collaborative Adaptation Research Initiative in Africa and Asia

HI-AWARE

Migration Decisions among Environmentally Vulnerable Population: Complexities and Context Matters

BCAS

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ICIMOD

WAGENINGEN UNIVERSITY & RESEARCH

12 HI-AWARE Study Areas in 4 Basins
Indus
Gandaki
Upper Ganga
Teesta
Hunza
Soan
Chaj Doab
Rudraprayag
Tehri Garhwal
Haridwar
Rasuwa
Nuwakot
Chitwan and West Champaran
North and West Sikkim
Darjeeling, Kalimpong and East Sikkim
Jalpaiguri and Nilphamari

Migration and remittance situation

- Only 29% migrant households
- Mostly young married men move
- More women (17%) joining migration process
- Internal migration predominates (80%) & international migration is South-South
- Migration is higher in the mountains compared to plains.
- Remittances is low (average USD3 per day)
- Major drivers- employment (44%) and education (30%)
- Environmental drivers have weak attribution but displacement due to extreme climatic events

Slow and rapid onset events and migration

- Self reported drivers of migration - employment (44%) and education (30%)
- Environmental drivers have weak attribution
- Erratic rainfall + rise in temperature two major climatic parameters
- >85% surveyed households perceived change in the climatic parameters

Figure 2: Households temporarily displaced due to extreme events, by migration status (%)

Figure 3: Households reporting a loss of property due to extreme events over last 10 years, by migration status (%)

Determinants of household migration decision

Variables	All River Basins	Gandaki	Upper Ganges	Indus	Teesta
Household size	1.09***	1.20***	0.87	1.04	1.14
Economically active members	1.48***	2.12***	0.98	0.92	1.58***
Landlessness	0.96	1.11	0.91	0.41***	1.72*
Change in average annual temperature	0.89	0.77	2.09**	3.55*	0.73
Change in average annual rainfall	1.23*	0.93	2.13	0.75	1.23
Change in number of dry days	1.11	1.44	2.26**	0.70	1.09
Change in climate induced extreme events	0.44***	1.59	1.36	1.25	0.90
Property loss due to climate induced extreme events	1.71***	1.37	0.88	0.99	1.18
Temporary displacement	1.33	2.23	1.33	0.70	1.88*
Distance to road	1.00	1.04	0.91	1.02	1.05
Membership of community based organizations	1.29*	1.37	0.92	0.80	1.32
Indebtedness	1.06	1.30	0.63	1.57	0.53**
Number of income sources	1.47***	-	1.49*	1.88**	1.41**
Agriculture and livestock as main income source	0.60***	0.28***	0.45**	0.78	0.77
Education level	1.11***	1.03	1.13	1.04	1.77***
Upstream area	3.20***	4.80***	9.88***	3.38***	1.09
Midstream area	3.40***	2.61***	48.96***	1.52	1.11
Constant	0.10***	0.42***	0.06**	0.27	0.02***

Conclusions

- Household migration decisions are complex process
- Self reporting might not capture the complex process
- Need to consider both the vulnerability and aspiration framework
- Environmental factors - slow and rapid onset changes – play an important role but the extent depends on the socio-economic context

THANK YOU