

How to quantify “resilience” benefits following ADB 2017 Guidelines for Economic Analysis of Projects? Sample from SCTEIP

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Resilience benefits: avoided flooding damage and avoided loss of productivity FOR ALL



Water supply and sanitation benefits, only for those who will be connected

SWM benefits, only for those who will avail

Urban space benefits, only for those who are near parks

Economic infra benefits, only for those who will participate

Sample Coastal Towns	Sectors covered	Potential Economic Benefits	Approach for benefit estimation
Jhalokathi Pourshava	Cyclone shelters	i. Number of human lives saved by shelters	(i) Estimate of value of statistical life (VSL) (ii) Estimate of cycle occurrence probability (iii) Use death to exposure ratio from Super Cyclone Sidr (0.001; 1 death out of 1000 exposed people)
		i. Number of livestock saved by shelters	Market price and available cattle stock in the pourshava along with death to exposure ratio
		i. Educational and other ancillary benefits from increased number of classrooms	Average wage difference between a grade-5 passed worker and a worker who never went to a primary school @ US\$136 per year. (same approach in WB funded Cyclone Shelter project)
Begerhat Pourshava	Roads	i. savings in VOC ii. savings in travel time iii. savings in pedestrian time	Using the average daily traffic from field data, guideline value of unit rates for VOC and travel time for different vehicles and pedestrians
	Drainage network	i. Avoided flooding damage ii. Avoided loss of productivity FOR ALL.	This damage and/or avoidance cost is estimated for different return periods and has been adjusted for exceedance probabilities to derive the total expected damage cost.
	Solid waste management	i. SW disposal time savings ii. Health related benefits (health expenditures and earnings loss)	survey

+ reduction in:

- i. GHG emission
- ii. residential flood maintenance cost
- iii. road maintenance expenses
- iv. in income loss to residents and to commercial units