

SUMMARY GUIDE FOR PCBA WORK

This section is intended as a pocket guide for facilitators working in the field. It provides a quick summary of the crucial steps of the PCBA that need to be implemented in the field.

PRE STEPS

- Review this manual and practice the PCBA - Do at least one successful mock PCBA process, from start to finish, before going to your community. Three to five iterations may be needed if you have not been formally trained in this methodology.
- Make formats
 - Costs and Benefits in words (Table A)
 - Costs and Benefits in numbers (Table B)
 - Summary benefit cost ratio calculator. (Table C)
- Meet with the community and explain the PCBA process and outcome
- Identify groups of 10-15 participants that represent the community. If needed, make more than one group to represent different actors, e.g., men and women or along other social or geographical lines.

TABLE A

LISTING OF COST AND BENEFITS FOR OPTION X

| | Costs | | | Benefits | | |
|-----------|----------|--------|---------------|----------|--------|---------------|
| | Economic | Social | Environmental | Economic | Social | Environmental |
| One time | | | | | | |
| Recurring | | | | | | |

PCBA PROCESS

1. List all ranked options

2. List costs and benefits for each option

- For each option, separately list the costs and benefits on the Table A format in words. Do not try to quantify at this stage:
 - Break them into economic, social and environmental costs or other categories that would help the community identify more costs and benefits
 - Within each category identify both one-time and recurring costs and benefits
 - Check that you have not listed any costs or benefits more than once (e.g. in both social and economic). Remove any duplicates.

3. Calculate the value of the costs and benefits

- Determine the timeline for the analysis—it should be the expected lifetime of the longest lasting intervention but no more than thirty years.
- Make a second table like Table B below and insert all the quantifiable costs and benefits.
- Remember benefits are the losses reduced due to the intervention i.e., difference in losses in current conditions without the intervention minus those with the intervention.

- Co-benefits are benefits that are not related to risk reduction but are still produced through the intervention.
- Also note the non-quantifiable costs and benefits on the list (they will mostly be in the social and environmental category)
- Repeat separately for each intervention
- There are three types of scenarios where the quantification can happen:
 - You can assign a quantifiable value to score costs and benefits.
 - You can use pairwise ranking to identify where your non-quantifiable values lie compared to the quantifiable values. For non-quantifiable values that lie between two quantifiable ones, ask the group where between the two values it should fall, exactly in the middle of the two, near the higher one, near the lower one—and then assign a monetary value to that item.
 - For non-quantifiable values that fall below a quantifiable value, see if they can be scored with the same process. If they are too small, lump several non-quantifiable items together (costs cannot be lumped with benefits) and then assign a value. Otherwise, very small values can be discarded.

There may be rare cases where all costs and benefits are non-quantifiable. In such cases all the costs and benefits for an intervention should be ranked against each other and then assigned a score between 1 and 10. These scores can be added for all costs and benefits for a ratio.

TABLE B

QUANTIFYING COSTS AND BENEFITS FOR INTERVENTION X

(Period of analysis - xx years)

| | Costs | | | Benefits | | |
|-----------|--------------------|--------|---------------|----------|--------|---------------|
| | Economic | Social | Environmental | Economic | Social | Environmental |
| One time | e.g., construction | | | | | |
| Recurring | e.g., maintenance | | | | | |

4. Calculate Benefit-Cost Ratios

- Transfer all the values from different interventions to the same chart for comparison. See the Table C.
- Calculate total Costs and Benefits for each option.
- Divide the benefits by the costs for each option and write the ratio in the B/C ratio column.

5. Compare and discuss options with community.

- The B/C ratio can be interpreted as the economic return on each unit of money spent. For example, a ratio of 1.5 means that for each dollar spent a benefit of 1.5 dollars will be gained. If the ratio is less than 1, i.e. 0.8, it means that for each dollar spent only 80 cents of return is coming and one should reconsider that option as it costs more than the benefits it brings.

TABLE C
COMPARISON OF COSTS AND BENEFITS

| | Costs | | | Total | Benefits | | | Total | B/C Ratio |
|----------|-------|--------|----------|-------|----------|--------|----------|-------|-----------|
| | Econ. | Social | Environ. | | Economic | Social | Environ. | | |
| Option 1 | | | | | | | | | |
| Option 2 | | | | | | | | | |
| Option 3 | | | | | | | | | |