**EXERCISE 7C. COSTS AND BENEFITS OF MANAGING NATURAL RESOURCES**

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| *OBJECTIVE*  **After this exercise the participants will be able to:**   * Describe the social, economic, ecological, governance, and learning implications of a program. * Compare costs and benefits to help a group make decisions around ”tradeoffs,” that is, which costs the group is willing to incur to achieve the benefits. | |
| *EQUIPMENT NEEDED*   * Notepaper, pens, large sheets of paper, marker pens | *EXPECTED OUTPUT*   * A detailed description of the costs, the benefits and a comparison of the two. |
| *TIME*  20-30 minutes | *PREPARATION*   * Review the group’s natural resources management plan and bring a few copies to the meeting. Prepare your checklist of questions beforehand. * Some projects have goals that are related to increasing profitability and incomes. Some are more explicitly focused on improving natural resources that don’t have a dollar value. In either case, a cost- benefit analysis can be carried out: * Before the start-up of the activity in order verify that the activity is viable, either economically or otherwise. * During implementation, in order to assess whether the activity is actually generating income or having other benefits recognized by the farmer group or community. If it is not, you should change your strategy. |

*Adapted from Pant (n.d.) and Johnson et al. (2000).  
Cost-benefit analysis is a tool used to compare, in monetary terms, the actual or estimated costs and benefits associated with a program. It can be simplified for evaluation. The group together creates a list of the costs and benefits associated with the activities.*

**PROJECTS ANTICIPATING ECONOMIC BENEFITS**

*SUGGESTED PROCEDURE:*

If your project will likely lead to increased incomes, use the following steps. A detailed version of these guidelines can be found in the module *Seven steps of marketing*.

1. Ask participants to identify the type and amount of inputs required to implement the activity (materials and supplies, labor, interest to be paid if a loan has been/will be taken, etc.).
2. Ask participants to figure out or recall the cost (value expressed in money) of each one of the inputs mentioned above. Sum up the total cost.
3. Ask participants to figure out or recall the money value of activity outputs, i.e. the total benefit. This may include different items (for poultry the benefit would be the sum of income generated through the sale of eggs and chickens).
4. Compare the total cost with total benefit. This can be done by figuring out the actual income (benefits and costs) or by identifying the cost/ benefit ratio (a pocket calculator can help).
5. Ask participants to analyze these figures and the implications of the comparison.

*QUESTIONS TO STIMULATE DISCUSSION:*

* To what extent has this activity been beneficial?
* Why is the difference between cost and benefit so big or small?
* What can be done to increase the benefits and decrease the costs?

**PROJECTS ANTICIPATING NON- ECONOMIC BENEFITS**

*SUGGESTED PROCEDURE:*

If the expected benefits are not monetary, experiment with other kinds of cost/benefit analyses. These are more difficult to quantify, but are equally important to measure. Below you can find instruction to one such approach that will also evaluate gender differences.

1. Divide participants into separate groups of men and women. Ask participants to list the resources they used to implement the activities. The resources can include time, inputs, labor, and materials. They can also include opportunity costs; for example, if they gave up attending a community meeting in order to tend to their activities. List these on a flip chart.
2. Ask participants to list the benefits they’ve seen from the work. These might be human, social, physical, natural, or political benefits (Box 19). You can use the checklist below to organize your questions, or create your own based on the community context.
3. Compare the list of “costs” with the list of “benefits,” for all groups. Discuss the differences.

*QUESTIONS TO STIMULATE DISCUSSION:*

* What are the main reasons why these activities are important to you?
* What challenges are you encountering? Are they different for women and men?
* Have the benefits justified the costs?
* Who “paid the most” in costs (e.g., if additional labor was required, was it provided mostly by women)?
* Who is benefiting the most?
* Would you recommend this approach and these activities to others? Will you do this action again?

QUESTIONS ON TYPES OF IMPACT

**Human assets**

* Have group members developed specific skills through training?
* Have group members strengthened their problem-solving skills?
* Have group members been able to take the skills learned through demonstration plots to their own fields? Have they shared skills with their neighbors?

**Social assets**

* Has the internal organizational capacity of the groups been strengthened?
* Is the community working well with other community groups or organizations?
* Have conflicts been reduced?
* Did other people in the community adopt any of the improved practices?

**Financial assets impact**

* Has crop production increased?
* Have incomes increased?
* Has livestock been improved? Has fodder improved?

**Physical assets**

* Has infrastructure improved or increased?
* Has there been a reduction in erosion?
* Have there been reduced impacts of natural disasters on houses or land?

**Natural assets**

* Has there been any change in water quantity or quality?
* Has soil improved?
* Has there been a change in tree or plant cover?
* Have other resources been protected or enhanced?

**Political assets**

* Have community members and other landowners outside the farmer group engaged in the process?
* Have any policies been adopted or enforced, either at a group or community level, or in formal government structures?
* Has the local government taken interest or action in natural resources management?
* Has the capacity of the group to influence others been increase



