



Practitioner's Guide:

Transect Analysis



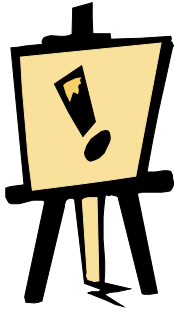
Deutsche Gesellschaft für
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(GTZ) GmbH



Bundesministerium für
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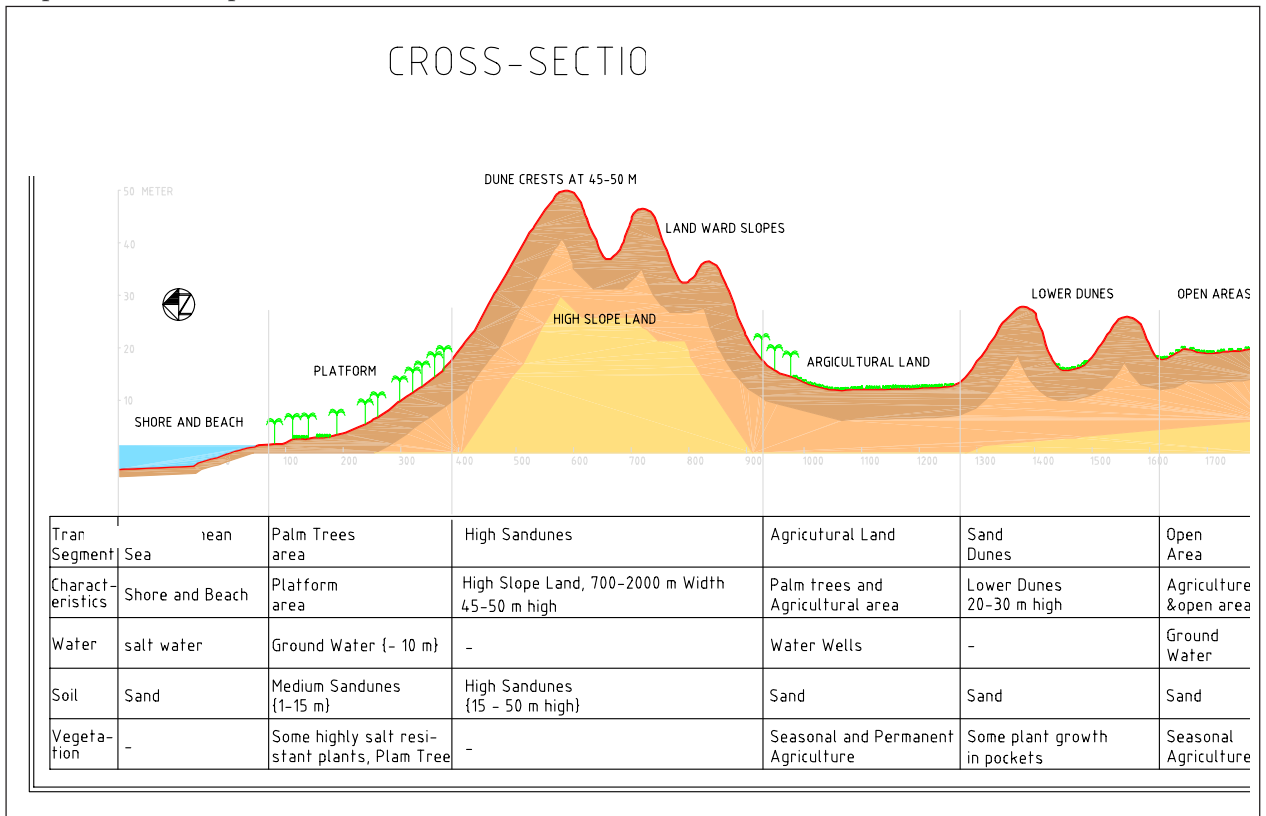
Transect Analysis

Brief Description



Transect mapping is a tool used to describe the location and distribution of resources, the landscape and main land uses. It further allows participants to identify constraints and opportunities with specific reference to locations or particular ecosystems situated along the transect. The tool involves outdoor activities, on-field observation, discussions and diagramming. One output is a transect map.

Map 1: Transect Map of a Protected Area



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Proposed Main Users

Private and public sector regional, urban or sectoral planners.



Purpose of the Method



Mapping is a visual process in which people are given the chance to relate physical and/or social information in a simple and easily understood format. It is especially useful where spatial information is required. Even people who have had access to formal education often cannot read professionally drawn plans, but most people can understand simple diagrams and more so, if they develop the diagram using symbols and materials that have meaning and relevance for them.

For part of a region being analysed it may be appropriate to record data along 'transects' rather than along communication routes such as roads. As roads tend to follow contours a route-mapping exercise would not represent an area that includes wide variations in land height. A route-mapping exercise in such an area as this would not record potentially marked differences in land use that may be present at different land heights within the area not traversed by roads. In such situations 'transect' mapping can be employed where land-use is plotted at different land levels (on foot or by eye in rough terrain areas).

Generally, land use mapping and field observations are 'time-frozen' that is they show the land use at only one specific period in time. To gain a fuller understanding of local land use, particularly in respect of seasonal changes in land-use (rotations) and expected future crops, interviews with individuals from within the local community concerned are essential. Aerial photographs can be useful too. These are useful in the planning of field research, to identify settlements, for the evaluation of the availability of natural resources, crop-patterns, land-use and physical evidence of land-holding, and the assessment of the existence, distribution and conditions of roads within a defined area of interest.

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Advantages



- ▶ This tool can give a broad overview of the evolution of community land use. It is thus useful for planning and monitoring community forestry/watershed areas and any other activities taking place on the land.
- ▶ It is less time consuming than other information gathering tools as many different interventions can be identified using the one tool.
- ▶ Communities, some for the first time, can analyse the linkages, patterns and inter-relationships of land use.

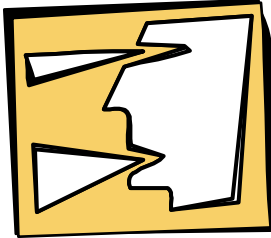
Limitations



- ▶ The method only takes into account the currently “observable” land use situation, it does not provide an insight into historical land use patterns nor does it provide an insight into future visions for the land use.
- ▶ In order to be able to undertake the transect mapping exercise a qualified facilitator is required to guide the community or the group while undertaking the exercise.
- ▶ It is not always easy to identify where best to undertake the transect walk, the transect may actually not represent a common picture of the area/ community.

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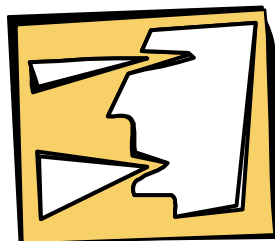
Principles and General Procedures



A transect walk is a mobile interview in which the research team walks from the centre of the village to the outer limit of the territory accompanied by several local informants who are especially knowledgeable about the issue they wish to investigate (e.g. natural resource, land use, agriculture, water, environmental issues, etc.). Together the team members and the informants observe what happens in different micro-ecological niches, fields, sections of the village or area and discuss issues of mutual interest. The walk need not follow a straight line; it may be more interesting to purposefully orient the walk to take in places of particular interest. The team members need not all follow the same path; it will probably be more useful to divide the team into smaller groups so that two to three people can go off in one direction while another group takes a different route. This permits the team to cover more ground and gather more perspectives. For example, it maybe useful to look for signs that resources are being used (cut branches, children or adults collecting fruits) or that there are controls on resources (e.g. fences, thorn pickets around trees, amulets hung on resources). The key is to take the opportunity to ask questions about resources or land use or agricultural practices and how they are used while actually observing the situation in question. Transects can be helpful in focusing on such issues as where resources are located, how and by whom they are used, how much pressure exists on various resources, what the rules of access are and whether there are conflicts.

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Principles and General Procedures



The following basic steps can be used for a transect exercise:

1. Design a chart with the categories you would like information on and the number of columns appropriate to the community. The categories could change from situation to situation, but generally these six will be present: soil, water, vegetation, socio-economic indicators, problems and opportunities. These categories could be negotiated with the group or could be developed by the group.
2. Explain to the group that you are going to take a walk through the community, stopping every 100 paces (variable). At each interval they will be doing an analysis of conditions that they find or see in that spot. These will be charted (show a blank chart on the chalkboard or flip chart).
3. With a blank chart on the facilitator's clipboard, move outside to the edge of the community. Plot a straight course through the community that will transect its most important areas. You might point out the end point some 500 to a thousand meters away.
4. Begin by having the group look around them. The group should examine each category carefully. What do they observe about the soil? Discuss as a group and record the group's observations. What about water? What is available? How is it collected? Used? Vegetation (both cultivated and wild)? What socio-economic indicators do they observe (e.g. homes, schools, markets)? What are the homes made of?
5. Once this information is recorded, walk with the group in a straight line approximately every 100-200 paces (depending on the size of the community) and stop again. Repeat the process.
6. Repeat until the entire community has been transected and "snapshots" of the community have been completed at each stop.
7. Take the information and chart it. Reproduce the charts for each participant or place it on a flip chart. Review the walk and what was revealed. Follow up with key questions related to the information gathered.

Here are some key questions that might be posed to the participants:

1. What local resources are there?
2. What constraints limit the exploitation and development of these resources?
3. What are the problems the community faces?
4. What are the causes of these problems?
5. What is the most pressing problem as perceived by different groups in the community? (Problems could be brainstormed and ranked.)
6. What are the aspirations and goals of different groups?
7. How can the identified problems be addressed using local resources and through community self-help?
8. What support services and facilities are available to the community? Who has access to these services? Who determines whether this area gets needed services?

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