Again a flexible interviewing style recognises that attention had to be paid to both mapping techniques and mapping elements. Maps were made based on a participatory mapping method, to explore and document indigenous knowledge related to spatial locations that could then be linked with GIS. Key informants were asked to draw data directly onto a topographical map. Environmental characteristics of sites were also recorded.

Those using participatory mapping need to accept that this style of mapping differs from conventional digital mapping in terms of accuracy because it is concerned with memories and observations of specific areas. Not all informants knew and accessed every fishing ground. Selecting informants who represented the diversity within the hapu was important and the group of informants was carefully selected composed of kaumatua, fishermen and tangata tiaki. Using this technique also recognised that visual depictions, especially maps, are an important tool for communicating with hapu and whanau. They can be used on a small scale within a specific area but also have the potential to integrate with GIS to further manipulate and analyse data in different themes or layers to produce a map that can be useful for a range of planning purposes.

Participatory mapping starts with collective discussions among groups of community members and then proceeds to drawing maps of their perceptions about the geographical distribution of environmental, demographic, social and economic features in their territory.

The participants are usually requested to draw their own map, e.g., on a flipchart or on the ground, plotting features with symbols that are understood and accepted by all members of the group, regardless of literacy. In certain cases, purchased maps, aerial photographs or basic drawings on paper or on the ground can be used as a basis for the participatory exercise.

**Purposes**

Participatory mapping is useful for providing an overview (or 'snapshot') of the local situation. It can also serve as a good starting point for environmental and social assessment.

Periodically repeated participatory mapping may help in monitoring and evaluating changes in the distribution of social resources (e.g., infrastructures like schools and health units) and in the use of natural resources. 'Historical' and 'anticipated future' mapping (i.e., drawing a series of maps referring to different moments in time) are versions of participatory mapping that are helpful in describing and analyzing trends over time.
Steps in using the technique
Explain the purpose of the exercise to the interest group. Agree on the subject of the mapping exercise and on the graphic symbols to be used; participants choose their own symbols. Ask a participant to be responsible for drawing or plotting symbols according to the suggestions of the group. Promote participation of all interest group members by posing questions to several individuals; allow the group to discuss different opinions and perceptions.

Once the map is finalized, ask participants to interpret the overall picture; if appropriate, suggest that they identify the main problems revealed by the map and ask them about possible solutions within the locally available resources (which are already drawn, or could now be drawn, on the map).

Remember that the map is Tangata whenua property; leave the original in them and make copies of it if other uses are foreseen and Tangata whenua give permission.

Strengths
- Mapping and the associated discussions quickly provide a broad overview of the situation.
- They encourage two-way communication. They help people in seeing links, patterns and inter-relationships in their territory. Individuals who are illiterate can also participate.

Weaknesses
Subjectivity and superficiality: mapping exercises must be complemented by information generated by other participatory assessment tools. Some cultures may have difficulties in understanding graphic representations.