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**Proportional piling in Turkana: a case study**

Cathy Watson

**• Introduction**

The Turkana people of north-west Kenya are nomadic pastoralists, whose livelihood depends largely on their herds of sheep, goats, camels and cattle. However, they supplement their household economy with a number of other activities, such as growing sorghum in hollows and along dry river beds, fishing (for those living by Lake Turkana), hunting and gathering, and trade.

The Loiktaung Pastoral Development Project (LPDP) is an Oxfam-funded project based in the north of Turkana District. The project, which began in 1984, focused initially on rainwater harvesting for crop production, looking at ways to strengthen the traditional practices of sorghum growing. Project activities have since broadened to include other initiatives which respond to the needs of marginal pastoralists.

The project is working in three locations, Kachoda, Kaalin and Loarengak, which is on the shores of Lake Turkana. Interest in the improvement of sorghum gardens was greater along the lakeshore than at the inland locations. This was attributed to the history of sorghum cultivation among the sub-section, the Ngisiger, who live along the shores of the lake.

In late 1989, a study was commissioned to investigate the socio-economic context of the project participants along the lakeshore, including the relationship between the various economic activities of gardening, pastoralism and fishing. Two of the project sites were selected for this particular study, together with a sample from a peri-urban settlement on the edge of Loarengak village. Interviews were conducted with all the households in the sample sites, and followed up with group discussions.

**• Aim of the exercise**

This case study focuses on one particular technique used during the study, proportional piling. Piling was used as a central method during interviews with the sample households. It was used to investigate the relative contribution which the families' various economic activities made to household food supply. The exercise provided indicative values - based on the families' own perceptions - and also served as a basis for further discussion. The exercise was carried out twice, for the wet and dry seasons. This enabled seasonal differences to be assessed and discussed.

**• Methodology**

A pile of about 100 pebbles was used. They were heaped up in front of the respondent (usually a woman), who was then asked to divide them into piles. The piles represented the household's different sources of income or food, including:

- Milk and meat from livestock;
- Fish (and income from fishing);
- Sorghum;
- Income generating activities; and,
- Food or remittances from relatives.

The categories were selected by the respondents themselves. The number of stones was approximately constant in all the exercises, to maintain some consistency. The exercise was first done for the wet season, and then repeated for the dry season.

The results were compiled into a table, showing the average number of pebbles per category for the whole site. From this the approximate percentage contribution to household food supply of the various activities was calculated.

The wet and dry season results from each site could then be compared, as could the results from the two sample sites. An example of the

results from one site, Nadopua, is shown in Table 1.

**Table 1. Proportional piling: income and food sources, Nadopua**

Activity	Dry Season %	Wet Season %
Charcoal/wood selling	35	13
Gifts from relatives	24	8
Livestock products	18	30
Fishing	16	15
Wild fruits and berries	5	6
Sorghum gardening	1	27
Friends	0.5	-
Purchased sorghum	0.5	1
<b>Total (n = 9 households)</b>	<b>100%</b>	<b>100%</b>

The table shows some of the seasonal changes in food supply. For example sorghum gardening and livestock products play a major role in the wet season, while gifts from relatives and sales of charcoal and firewood are clearly an important factor in the household economy during the dry season. A comparison between the results from the different sample sites showed that the households in the second site, Naupwala, were far more dependent on relatives and friends, and consequently view themselves as less self-sufficient.

Although it provides no absolute figures, proportional piling is a very simple, visual method which is useful for illustrating relative values and proportions, from the perspective of the respondents. Similar to many participative techniques, it is also an excellent basis for further discussion, and can be used to compare current and past practices as well as seasonal differences, for a range of different topics.

- **Cathy Watson**, Intermediate Technology Development Group, Myson House, Railway Terrace, Rugby CV21 3HT, UK.

#### REFERENCE

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