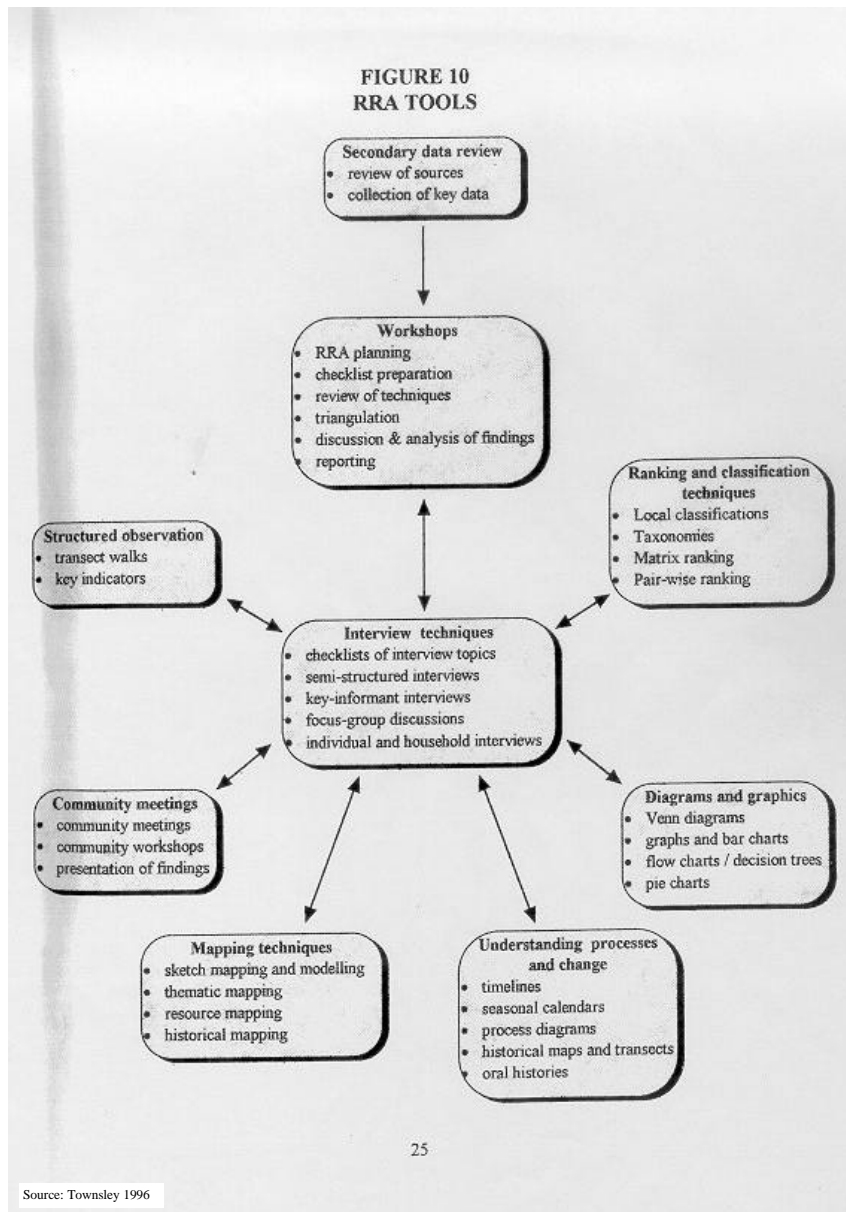
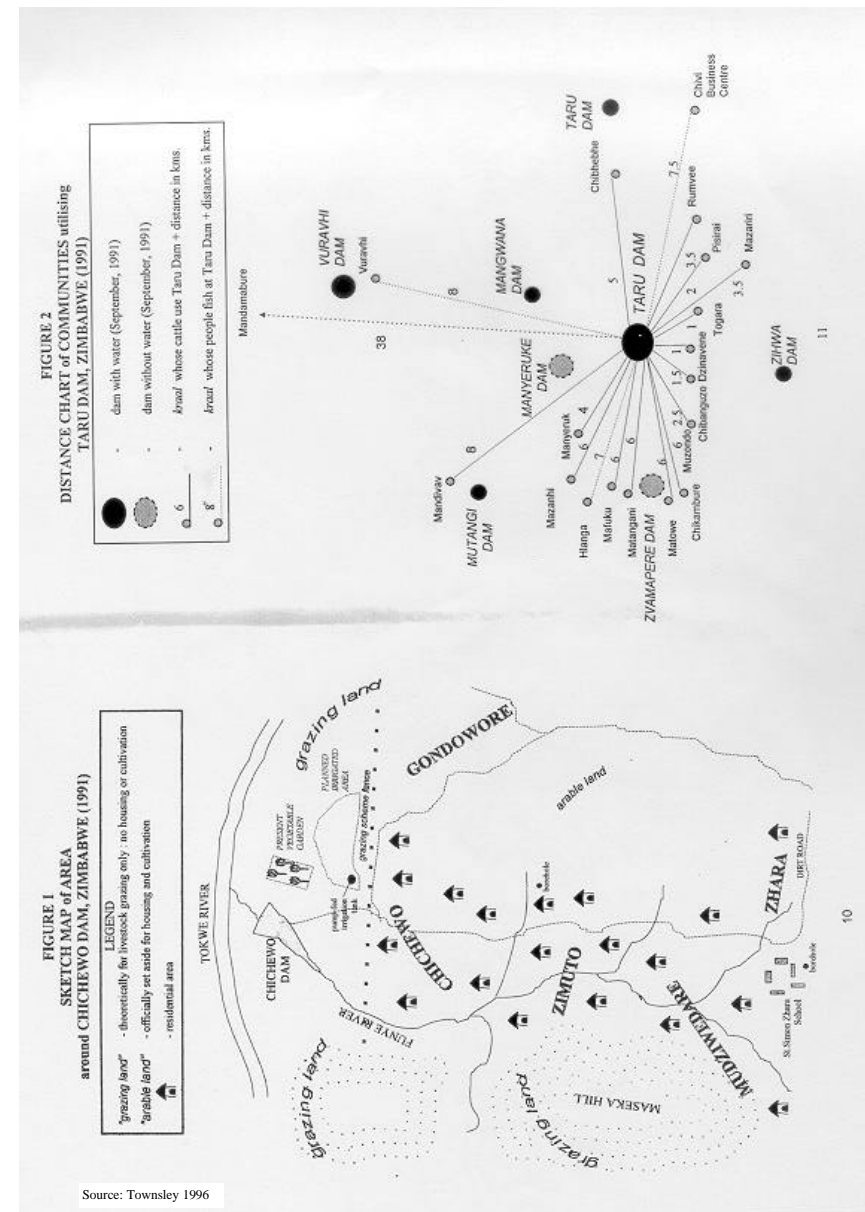


Appendix 4.2. PCA tools



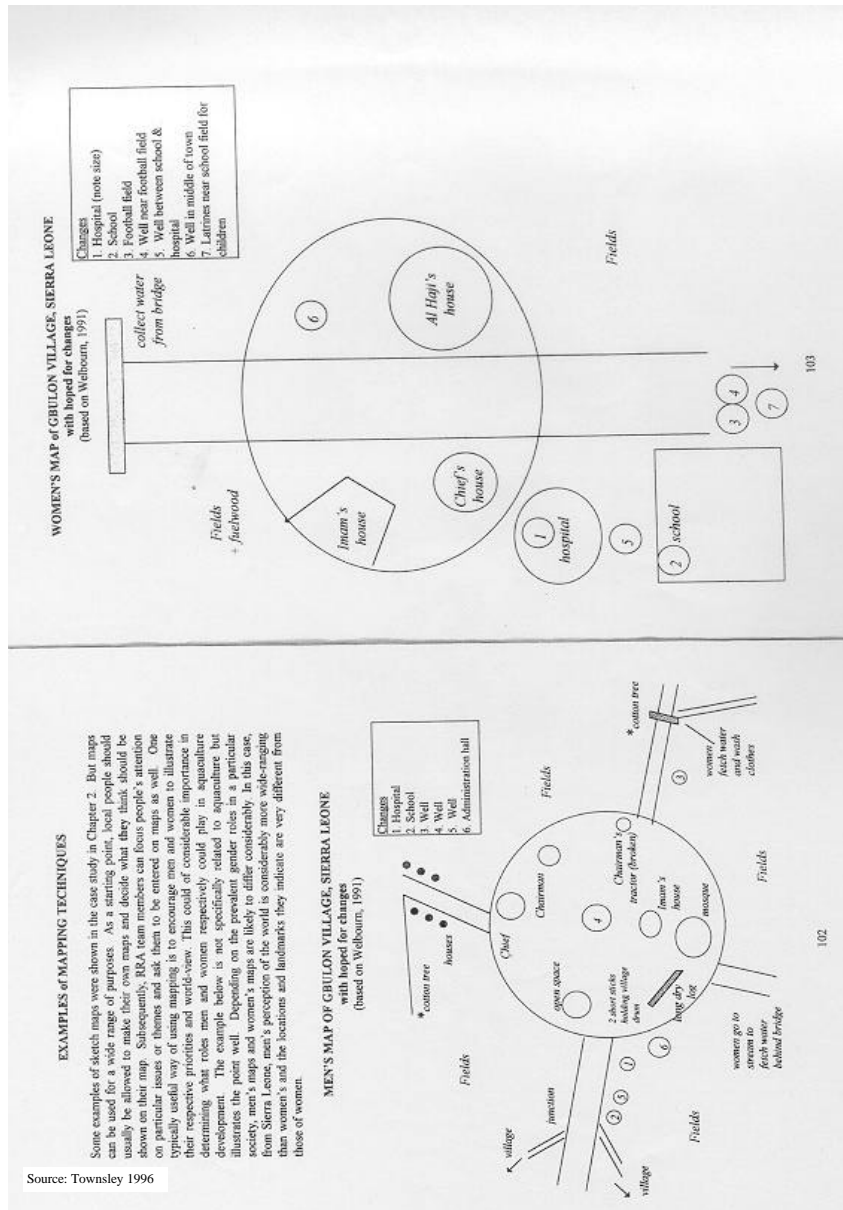
25

Source: Townsley 1996

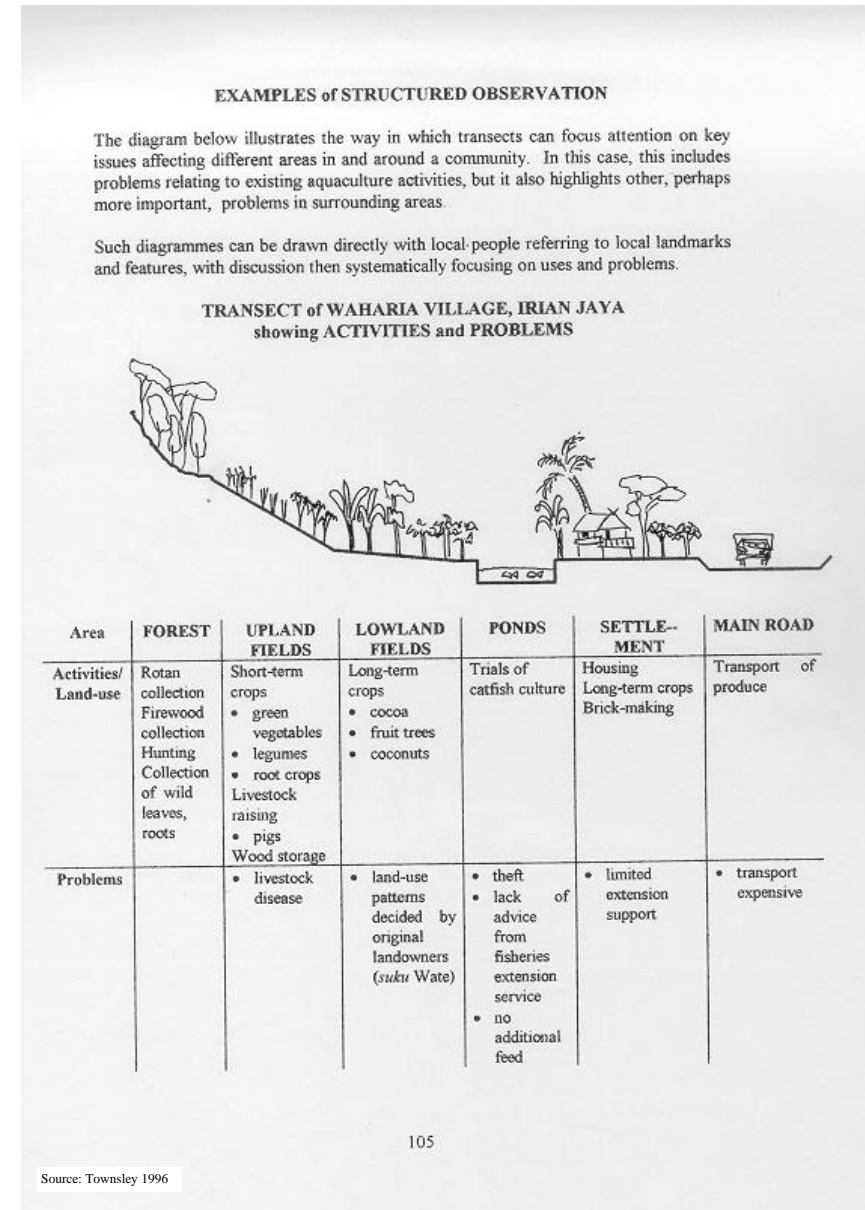


Source: Townsley 1996

Appendix 4.2. PCA tools



Source: Townsley 1996

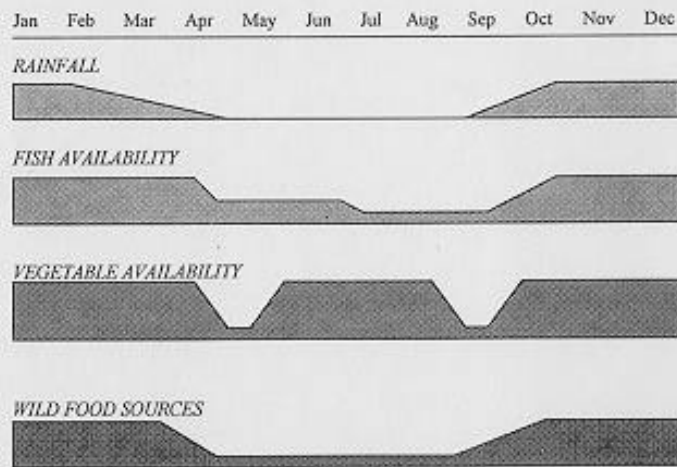


Appendix 4.2. PCA tools

FIGURE 5
RANKING of PREFERENCES for DIFFERENT FISH SPECIES :
MWENJE DAM, ZIMBABWE (1991)

FISH TYPE	RANKING CRITERIA			
	Not bony	Good size	No religious prescription	Taste
Sinde (barbus)	1	3	=1	2
Magwaya (bream)	2	2	=1	1
Mhahle (barble)	3	1	3	3

FIGURE 6
SEASONAL CALENDAR showing availability of
FISH, VEGETABLES and WILD FOODS (insects and grubs)
TARU DAM, ZIMBABWE (1991)



Source: Townsley 1996

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FIGURE 7
SEASONAL DAILY ACTIVITY CHARTS for MEN and WOMEN,
DZINAVENE VILLAGE, ZIMBABWE (1991)

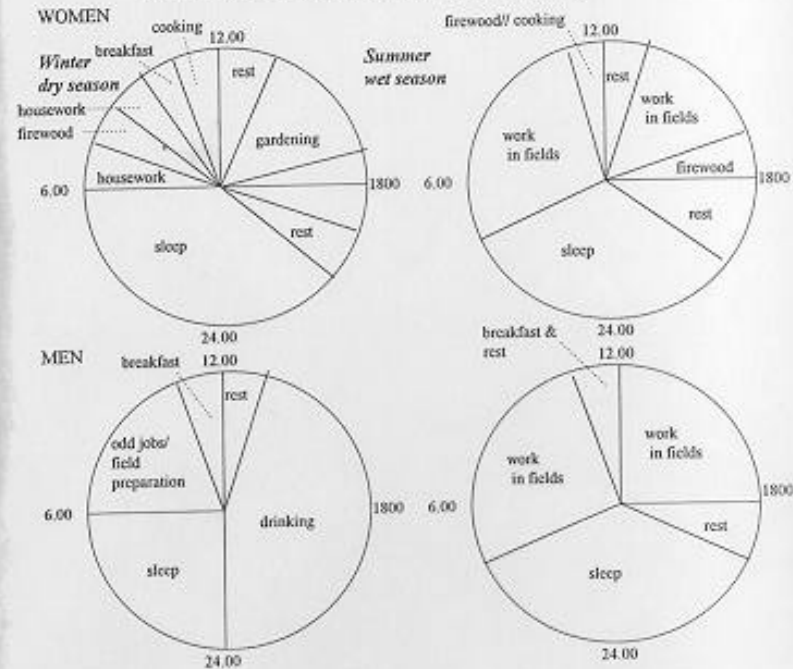
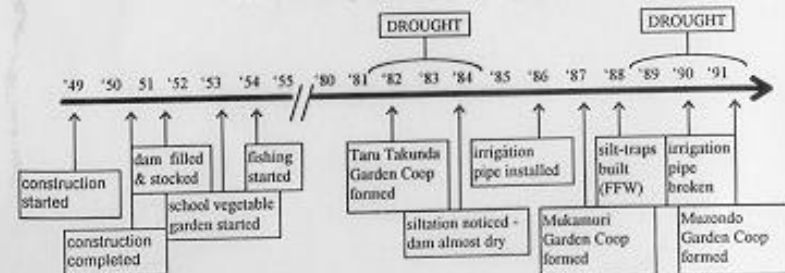


FIGURE 8
TIMELINE illustrating HISTORICAL CHANGES at
TARU DAM, ZIMBABWE (1991)



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EXAMPLES of RANKING

A very simple ranking matrix was shown in the case study in Chapter 2. The two ranking exercises shown below are more complex. The first matrix shows how a ranking exercise could be used to distinguish the relative involvement of different social and occupational groups in exploiting different fisheries resources; including fish ponds, in a floodplain area. Here some easily available materials, such as stones or beans, are being used to express the proportions of a particular resource used by different social groups - men and women, adults, children and old people, and different occupational groups based on those identified by local people as being involved in fishing.

In ranking exercises of this kind care has to be taken that it is clear what is being ranked - in this case relative proportion of overall resource use. RRA teams also have to make sure that they have thought through the numbers of "counters" used in each category. In this case, 10 stones have been given for each comparative group - i.e. men and women using pond fisheries - so that the result can readily be expressed as a simple proportion. But clearly this does not tell us which of the various resource categories is most important for each user group. Ranking could also be attempted vertically to clarify the relative importance of the resources. This would help in trying to assess the current importance of pond use for fisheries relative to other sources of fish.

Fishing areas	Resource users							
	Men	Women	Adults	Children	Old People	Farmers	Fishers	Traders
PONDS	●●●●	●●●●	●●●●	●●	●	●●●●	●●●●	●●
BORROW-PITS	●●●●	●●●●	●●	●●●●	●●	●●●●	●●●●	●●
STREAMS in VILLAGE	●●	●●●●	●●	●●●●	●●	●●●●	●●●●	●●
near FLOODPLAIN	●●●●	●●	●●●●	●●●●	●	●●●●	●●	●●
far FLOODPLAIN	●●●●		●●●●	●●		●●●●	●●●●	●●
perennial SWAMP	●●●●		●●●●			●●●●	●●●●	
RIVER	●●●●		●●●●	●●		●●●●	●●●●	

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Source: Townsley 1996

In the second matrix, the focus is on changes over time. In this case, the team doing an RRA about current aquaculture development in a particular area might want to see how sources of fish in a local market have changed so that the relative importance of aquaculture can be assessed. A fish dealer, or group of fish dealers, might be asked to show, again using stones or some other kind of counters, the relative amounts of fish bought from different sources now and in the past. This could be combined with a discussion of changes in the species composition of fish sold. The time periods used could be chosen by the team or, better still, be based on prior discussion with local people which had identified events or periods which people readily recognised based on political, economic or resource changes.

CHANGES in FISH TRADERS' SOURCES of FISH and SPECIES SOLD : pre-1980 to present

Sources of fish for sale	Time periods		
	Pre-hatchery construction (pre-1980)	Pre-road construction (1980-1981)	Post-road construction (post-1991)
Bought from fishers	●●●●	●●●●	●●●●
Bought from other dealers	●●	●●●●	●●●●
Bought from fish pond owners		●●●●	●●●●
Bought from farmers (from paddy fields)		●●●●	●●●●
Bought from farmers (from borrow-pits / submersible ponds)	●	●●●●	●●●●
Large carps (wild)	●●●●	●●●●	●●●●
Small floodplain fish	●●●●	●●●●	●●●●
Large carps (cultured)		●●●●	●●●●
Exotic carps (cultured)		●●	●●●●
Tilapia (cultured)			●●●●

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Source: Townsley 1996

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Who are the other stakeholders?

POOR PEOPLE
 ADVOCATES FOR THE POOR
 NGO
 FISH FARM MANAGERS -
 VEGETABLE PRODUCERS FARM MANAGERS
 RICE PRODUCERS -
 ANIMAL PRODUCERS POLITICIANS
 DEPT OF IRRIGATION + WATERWAYS
 CMC - MONITOR WHOLE LAND RESOURCE
 POLLUTION CONTROL BOARD RAMSAR WILDLIFE STAKEHOLDERS
 TANNERY OPERATORS + OTHER ACTIVITIES COUNTRY LIQUOR PRODUCERS
 DEPT OF FISHERIES POLICE
 DEPT OF ENVIRONMENT. POACHERS
 KOLKATA CITY CONSUMERS
 BANKERS + MONEY LENDERS CMBISA CUMSA
 WHOLESALE MARKETS / MARKET OWNER / RETAIL VENDOR
 PROFESSORS PEOPLE IN FLOOD PRONE AREAS
 SEED TRADERS TAXPAYERS
 DEVELOPERS - WBIDC SCIENTISTS

East Calcutta Wetlands and Livelihoods Workshop

Name:

Preferred sources of information:

Newspaper articles Book Technical report

Journal articles Audio-tape Radio broadcast

Film/video Pamphlet CD Rom/DVD

Website Field manual Policy briefings

Other:

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