Resources flow – Venn diagrams: a two-in-one approach

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Introduction

Farmers’ flow diagrams are good descriptions of important patterns of flow and transformation of resources - money, materials, energy, information, etc. A farmer’s strategic choices is best understood by means of decision trees, whilst circles of different sizes and colours have become popular in representing individuals, groups and institutions that have significant bearing on farmer’s critical decisions (Ed. commonly known as Venn or chapatti diagrams). In this brief note we describe a recent innovation in method by Rama Gounder, a farmer collaborator, to help researchers learn about mediating variables influencing his decisions on crop selection, decision to purchase or use home grown inputs, and resource allocation decisions (see Figure 1).

In a recently concluded PRA workshop at Regional Research Station of Tamil Nadu Agricultural University at Paiyur, Rama Gounder and several other farmers - both men and women - acted as village teachers. They were involved in transect walks, mapping/modelling exercises, seasonal analysis, ranking and scoring, and resource flow diagramming - the tools that outsiders have found useful in learning about the villagers’ perception and analysis of their environment.

On the fourth day, while we were probing farmers’ critical decisions on crop selection and resource allocation, Rama Gounder proceeded, after his initial explanation, to show his ingenuity in analysing and explaining his decision-making process. Besides using the cards and chapatti circles of different sizes and colours that the researchers had carried to the village, Rama Gounder involved the children to collect specimen of crop plants, leaves, seeds, etc. He also used samples of gypsum block, fertilizer farm yard manure (FYM), currency bills of different denominations, cartons of Azospirillum, pesticide cans and package of recommendation booklets to symbolically represent resources, their flows and transformation in different plots, his resource allocation decisions, and institutions having a significant impact on his decisions.

1 Full report in Participatory Rural Appraisal for Agricultural Research, at Paiyur, Tamil Nadu, Tamil Nadu Agricultural University, Coimbatore and IIED, held in 1992.

Source: RRA Notes (1993), Issue 17, pp.16–18, IIED London
• **Analysis of process**

The different stages of his analysis were as follows:

- He drew a large circle on the ground to represent the village boundary using *rangoli* powders\(^2\).
- On a large drawing card he drew a symbol of his house and placed it to represent the dwelling place in the village.
- Internal inputs like farmyard manure (FYM), seeds of paddy, pulses, groundnut, etc., were symbolically represented by placing small samples of each input around the house cutout.
- Rama Gounder divided the circle into four parts by drawing thin lines. This represented his four plots, which he identified by writing the plot names on large paper circles. Plots nearer the habitat were shown nearest to the house, while the farthest plot was put on the top, away from the house.
- Crops grown in different plots were shown by the seeds, leaves or plant specimen.
- Next he placed samples of inputs used in different crops, the sample being proportional to the quantity used. Pesticides cans represented the chemical inputs sprayed on the crops. Gypsum rocks of different sizes exhibited the soil amendments used while, fertilizer samples and FYM heaps were used to explain his nutrient management practices. Currency bills of different denominations emphasized the different credit requirements for raising crop combinations in the plots. A packet of *Azospirillum* typified the use of biofertilizers like *Azolla* and *Azospirillum*. Thus, all the resources allocated in the plots were symbolically represented.
- Rama Gounder now addressed himself to the issue of institutions that influence his resource allocation decisions. He used circles of different colours and sizes to indicate agencies such as, private shops input depots run by the State Department of Agriculture, Co-operative bank, Adhiyaman Grama (Rural) bank, Regional Research Station, Paiyur, Extension Office and his own house. The size of circle denoted the significance of different institutions. The circles were placed around the inputs.
- With a little prodding from us, Rama Gounder used cut-outs of human figure of two colours to differentiate between the family and hired labour and placed them on the four plots. Larger cut-outs were used to suggest greater labour requirements.
- Finally, on a large drawing sheet he made the legend.

• **Reflections**

We were all struck by Rama Gounder’s innovativeness with which he analysed his own environment and the decision-making process. Farmers can play an important role in methodology development, provided we the professionals are willing to set aside time to

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\(^2\) Coloured powders, locally used during festivals to make decorative pictures on the floor.
listen to and allow them to teach us what they know and practice best. It was evident that a farmer’s decisions on enterprises selection is influenced by the micro-ecological niches available to him and the access to and the assurance of institutional support. Instead of requesting villagers to name the institutions they interact with regularly and then try to understand their spheres of influence, the process we followed starts with farmers mapping out critical decisions and then identifying departments/agencies bearing on such decisions. In the present case, crop enterprise selection and resource allocation decisions were the focal interest. However, the exercise may be relevant for other areas too, such as health, credit, education, etc.

Once the basis of farmers’ interactions with different institutions is established, different scenarios of resource management and the required institutional support can also be explored. It will be interesting to examine how a group will handle open-ended exploration.

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