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Some techniques for rapid appraisal of artisanal infrastructures

Godfrey Cromwell

• Introduction

In areas where agriculture is the predominant household activity, rural artisans (blacksmiths, tinsmiths, carpenters, potters etc) often constitute important productive infrastructures complementary and/or essential to agricultural production. However, the essential inputs both to agriculture and to other aspects of rural life that these networks of demand and supply, production, credit, income diversification etc provide, sometimes become invisible when attention is focussed too exclusively on agriculture. Better understanding of artisanal systems is required if their contribution and potential for development are not to be ignored or attempts to assist them are not to be counter-productive (as has sometimes been the case).

This paper includes some of the techniques/approaches useful in a recent three-person rapid appraisal¹ of production, repair and use of metal goods in rural Zimbabwe.

• Techniques / approaches

Expanded calendars

Most rural artisans in Zimbabwe are agriculturalists first and artisans second. Household food security depends on subsistence agriculture with, in some cases, marketing to surplus production but the requirement for cash income has become increasingly important with the growth of

essential cash-only payments such as school fees and the purchase of agricultural inputs. Artisanal activities are generally prized by artisans' households because they provide access to (additional) cash income.

It is important, therefore, to see artisanal activities within the context of both the interviewees' and the communities' farming system(s). One technique we used with artisans and in community group interviews was the construction of an expanded calendar covering both agricultural and non-agricultural activities.

First, interviewees' agricultural labour calendars were sketched. This was usually fairly straightforward since agricultural communities are generally accustomed to conceptualising agriculture as a well-defined cycle of activities. Then interviewees were invited to compare the patterns emerging with those of their artisanal activities (Figure 1).

The most effective point of entry into such comparisons was found to be peaks and troughs of demand for labour. These were widely occurring in agriculture and, once these had been discussed, it was generally easy to apply the same questions to metalworking.

¹ The team was Godfrey Cromwell, David Harries (also ITDG) and Philemon Sifo Ongware (Inst. Agric. Engineering, Harare).

Figure 1. Expanded calendar

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RURAL HOUSEHOLD												
ACTIVITIES	<p>Needling (Feb-Mar) Harvest (Maize) (Apr-May) Harvest (Cotton) (Jul-Aug) Ploughing (Nov-Dec)</p> <p>Plant G/maize, Napoko, maize (Jan) Build maize stores (Apr-May) Cut wood (touring & building) (Apr-May) Fencing, Yoke making (Sep-Oct) Early veg. planting (Oct) Later veg. planting (Nov) Weeding (Dec)</p> <p>Fertiliser spray (Feb) Fertiliser (Mar) Fencing (Sep) Yoke making (Oct) Building (Sep) Thatching (Sep) </p>											
LABOUR DEMAND	HIGH	HIGH	HIGH	HIGH	LOWEST	HIGH	HIGH	LOWEST	HIGH	HIGH	HIGH	HIGH
CASHFLOW	School fees	Veg. sales/mt	LOW	LOW	LOW	LOW	LOW	LOW	PEAK	Input credit repayment	Input credit repayment	Veg. sales
DEMAND TINSMITH	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	PEAK	PEAK	LOW	LOW
DEMAND BLACKSMITH	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	PEAK	PEAK	LOW	FALLING
	<p>Moas (Jan) Moas (Feb) Moas (Mar) Moas (Apr) Moas (May) Moas (Jun) Moas (Jul) Moas (Aug) Moas (Sep) Moas (Oct) Moas (Nov) Moas (Dec)</p>											
CREDIT GIVEN	SLIGHT/REPAIR	SLIGHT/REPAIR	SLIGHT/REPAIR	SLIGHT/REPAIR	SLIGHT/REPAIR	SLIGHT/REPAIR	SLIGHT/REPAIR	SLIGHT/REPAIR	SLIGHT/REPAIR	SLIGHT/REPAIR	SLIGHT/REPAIR	SLIGHT/REPAIR
BLACKSMITHING ACTIVITIES	Moas	Moas	Moas	Moas	Moas	Moas	Moas	Moas	Moas	Moas	Moas	Moas
	<p>Buy material (Mar) Buy material (Apr) Buy material (May) Buy material (Jun) Buy material (Jul) Buy material (Aug) Buy material (Sep) Buy material (Oct) Buy material (Nov) Buy material (Dec)</p> <p>Pay in advance (Apr) Pay in advance (May) Pay in advance (Jun) Pay in advance (Jul) Pay in advance (Aug) Pay in advance (Sep) Pay in advance (Oct) Pay in advance (Nov) Pay in advance (Dec)</p> <p>Run down stocks (Apr) Run down stocks (May) Run down stocks (Jun) Run down stocks (Jul) Run down stocks (Aug) Run down stocks (Sep) Run down stocks (Oct) Run down stocks (Nov) Run down stocks (Dec)</p> <p>Build up stocks (Apr) Build up stocks (May) Build up stocks (Jun) Build up stocks (Jul) Build up stocks (Aug) Build up stocks (Sep) Build up stocks (Oct) Build up stocks (Nov) Build up stocks (Dec)</p> <p>Run down stocks (Apr) Run down stocks (May) Run down stocks (Jun) Run down stocks (Jul) Run down stocks (Aug) Run down stocks (Sep) Run down stocks (Oct) Run down stocks (Nov) Run down stocks (Dec)</p> <p>Build up stocks (Apr) Build up stocks (May) Build up stocks (Jun) Build up stocks (Jul) Build up stocks (Aug) Build up stocks (Sep) Build up stocks (Oct) Build up stocks (Nov) Build up stocks (Dec)</p>											

This approach revealed patterns of work which differed between the types of metalworkers interviewed. These differences were, in turn, closely related to the types of market served. Thus, while rural blacksmiths experience fairly predictable demand for repair and production activities across the year, tinsmiths' production and repair activities occur almost exclusively in the post-harvest period and depend on variations in rural incomes. Different patterns of production of this type were traced by supplementary questions to the commodities produced (essential agricultural implements in the case of blacksmiths; domestic items in the case of tinsmiths).

Comparisons of labour calendars led naturally into demand calendars for artisanal services as perceived by the producer. The use of 'expanded calendars' of this type proved very effective in:

- obtaining information about existing agricultural system(s);
- understanding the dynamics of this system and its inter-linkage with artisanal production - for example the production of axes at the period of compound construction and land clearance, of plough-parts in the pre-rains period, of hoes for the weeding period, of large knives in the harvesting season etc;
- understanding patterns of credit availability and the use of rural incomes. The frequency and terms of credit extended by different metalworkers were also useful indicators of their respective dependency/power in their markets; and,
- understanding rural labour patterns and the resolution of conflicting labour demands. For example, discussion of interviewees' stated reactions when customers asked for products or repairs during periods of peak agricultural labour provided insights into the perceived value of cash income.

Group interviews

Since the study covered the production, repair and use of metal goods the team also investigated the perceptions of non-artisans. Group interviews were selected as the means to obtain this information.

Group interviews with non-artisan community members allowed:

- cross-checking of information including agricultural calendars;
- comparison between consumers' and producers' perceptions of, for example, demand for metalworkers;
- development of a wider demand map for, in this case, metal goods purchased and/or repaired by/for rural communities. For example, the roles and perceptions of goods and services supplied by welders and hardware stores in rural service centres were explored; and,
- identification of users' perceptions of the quality, availability and affordability of different products.

Brainstorming

In this study interviewees were asked either individually or as groups to list all the items currently found in local houses/compounds. This brainstorming was assisted by asking interviewees to imagine that they were walking around their compound/house describing the items seen. Finally, interviewees were asked to describe the activities of a 'typical' day in different seasons and any metal items or substitutes involved were noted. This procedure established a database of products from which items which were or which could be made of metal (for example wooden plates) were extracted for further discussion.

These techniques proved not only to be a rich source of information but were also entertaining for those involved - particularly when the group obliged the interviewer to undergo the same process.

The list generated during these discussions was then systematically worked through with interview groups and the following characteristics of each item were recorded:

- Source(s) of new goods (store, local blacksmith, tinsmith, home-made etc), with reasons;
- Source(s) of repair, with reasons; and,
- Issues of frequency of purchase and repair, availability, durability, popularity,

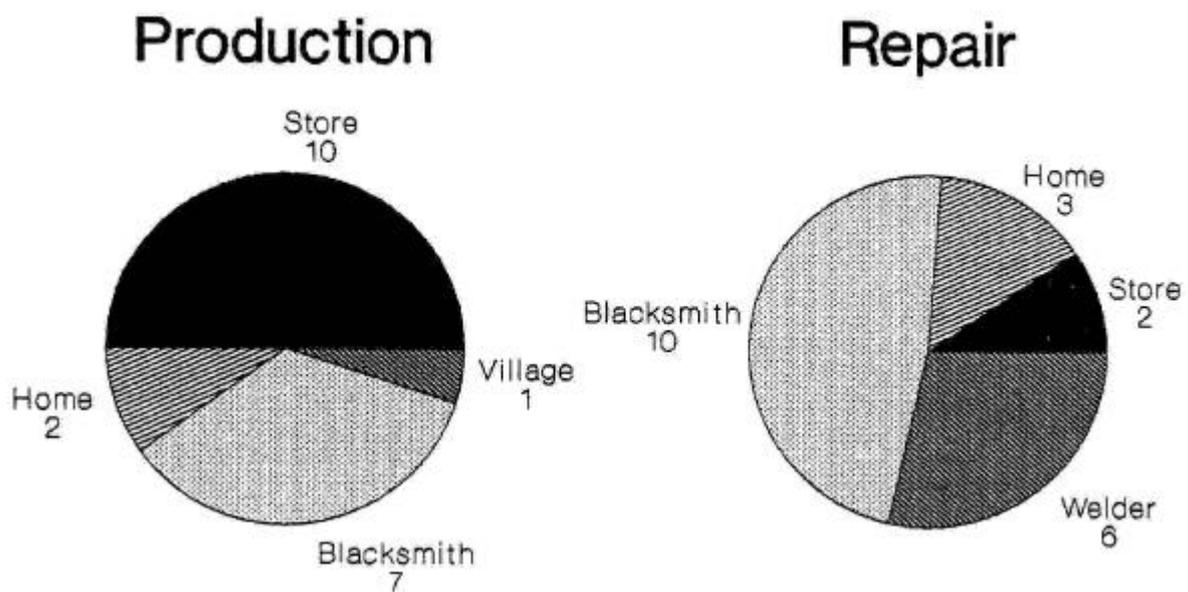
affordability, perceived shortcomings and advantages.

By comparing the number of items recorded as purchased or repaired by different types of metalworkers and discussing the reasons for this situation it was possible to assess:

- The relative importance of each sector (blacksmith, rural centre welders, tinsmith, industrial sector etc);
- The relative market security and product diversity of each sector; and,
- Changing patterns of rural demand over time.

One method used to analyse (and subsequently present) the appraisal findings was to display the list of products in pie chart form and thereby obtain impressions of the relative importance of different sectors. Presentation could be focussed as required to highlight the involvement of different sectors in each case. For example, by inputting the number of items produced or repaired by each sector (an example of this method is shown in Figure 2), or by selecting only certain items, the most commonly owned for example, or those used in agricultural production etc, hypotheses were generated for discussion and testing as the appraisal progressed.

Figure 2. Charts for agriculture (production and repair of metal items)



Focus on non-artisans

All the artisans encountered during the study were male and no female metalworkers were known of, either by the artisans or by the community groups interviewed. One benefit of the four group interviews held in different parts of the country was that they enabled the survey to gain access to women's perspectives. This was essential given the central role played by women in both agricultural and domestic activities. One group interviewed consisted predominantly of men while the three others were dominated, both numerically and in terms of contributions, by women.

Diversification

Many programmes attempting to assist artisans are very enthusiastic about product diversification. By exploring with the group composition, dynamics and rationale of the whole network of supply systems a useful database was compiled of:

- items currently owned;
- local perceptions and uses of these commodities;
- means of access to metal products and repair services; and,
- constraints and opportunities for product diversification.

In particular, we explored the extent to which, and the reasons why, each item discussed was owned by all, some or just a few households.

Questioning techniques

Many of the strictures applied to interview techniques in general (no leading questions, clarity, no multiple questions and so on) of course apply equally to non-agricultural surveys. However, there are some detailed practical questions which this study suggests are useful. These are now explored.

Sequence

Arriving at the most useful sequence for questioning is to some extent a matter of luck. Interviews are also likely to differ as to the

order in which topics arise. Nevertheless, careful consideration of question sequencing can ease the progress of an interview. Moving from the well-conceptualised agricultural cycle to the possibly less familiar idea of artisanal cycles is one example of this approach.

Needs assessment

When trying to assess artisans' needs it is very easy for interviewers either to suggest 'needs' or to shirk their responsibility to ask further questions about the rationale behind any perceived need. Posing the question "What do you need?" often elicits a wish list which is a poor start for exploring feasible options.

More specific and concrete questions, for example "What is your greatest difficulty?" followed by "why?" questions, tend not only to receive more considered answers but also to avoid the tendency for the interviewer to be faced with a wish list which he/she then often demolishes with supplementary questions. Such questioning or even apparent ridicule, of interviewees' answers can seriously undermine both their confidence and the atmosphere of the interview.

Questioners should thus remain aware of and sensitive to informants perceptions and aspirations. Motives and rationale need to be clearly understood. However, self-appointed 'disabusing' of interviewees of their perceptions by the interviewer is generally as unhelpful as the suggesting of 'solutions'.

Similarly, questions such as "Would you like to diversify your product range?" can produce misleading or unrealistic answers which are difficult to follow up. Questions such as "Do people sometimes ask you to make things and you refuse them?, Why?" not only enable discussion of actual local demand but also assist in identifying constraints on diversification. These constraints can be diverse: lack of materials, skill inadequacy, insufficiently regular demand, excessive time requirement to produce, availability of cheap alternatives etc. All of these have different implications for any attempts to diversify production and the importance of each must be clearly identified, ranked and explained.

Perceptions about the future

A major difficulty with RRA, as with every survey methodology other than projections based on market research, is that RRA tends to provide useful insights into the status quo but reveals little about the future. The assessment of the needs and constraints perceived by artisans described above goes some way to addressing this.

Another method found helpful as a basis for exploring artisans' perception of their trade and its future was to ask artisans how they would/had advise(d) their children as regards following in their fathers' footsteps. This, without exception, produced thoughtful assessments and useful summary appraisals by the artisans interviewed.

Similar questions were usefully included in group interviews with non-artisans. Groups were able to explain and explore the role, markets and prospects of rural artisans at least as well as the artisans themselves. This, in addition to any new data generated, provided a means to re-evaluate information supplied by artisans. Combination of perceptions - those of artisans and those of their clientele/community - proved to be an effective means of obtaining local assessment of both the present status of artisans and the future that they are believed to have.

Finally, asking different types of artisans for their perception of other types was also interesting. For example, discussions with welders in rural centres about the role of blacksmiths in the surrounding rural areas was revealing about the perceived market niches of both groups.

Focussing

It is important not to become over-focussed when investigating a particular topic. In the case of metal goods, an exclusive focus on metal items would have been misleading in that items made of clay, wood and plastic are currently also used in place of metal equivalents. Again it is important to unravel the reasons for these choices.

Similarly, neglect of a wide range of secondary sources detracts from such

appraisals. In particular an understanding of the history and current status of competing sectors-from the rural artisan to the industrial manufacturing base - is essential both when analysing artisanal systems and when appraising their future.

Inclusion of family members

Many rural metalworkers depended on their wives for agricultural subsistence production while the interviewees generated cash income from their artisanal activities. Interviews where both (or more) members attended were often more balanced and provided a good means for verification of information, either as a result of unprompted debate/interjections or by addressing some/additional question to other family members. For example, metalworkers who suggested that household food security (as opposed to cash income) was based on their artisanal activities were several times pulled up sharply by their wives.

Exploring technical ability

Simple, open-ended questions allow artisans to demonstrate their knowledge of key skills. For example, technical questions put to rural blacksmiths interviewed during the study included:

- How do you select metal for making knives?
- How do you make a knife?
- What happens if you leave a piece of metal in the fire for a long time?

These three questions alone enabled exploration of:

- artisans' knowledge of metals (including high and low carbon steels);
- artisans' methods for identification of metals (for example some judged by the sound made when the metal was struck, others by the ease with which it was cut etc);
- artisans' access to and use of different metals and the reasons for these choices;
- knowledge/use of hardening and tempering techniques; and,
- the efficiency of artisans' forges (could metal be melted).

Wherever possible a technical specialist should be included in the team since, for example, assessment of the technical quality of products and skill-use requires experience (although any such assessment should be set in the context of local perceptions). However, assessment of technical knowledge, seemingly a daunting task for the non-specialist, can actually be greatly facilitated by using this type of simple questioning. Even where a technical specialist is included, simple, non-abstract questions should be developed and tested before embarking on a survey.

In many cases a drawing or photograph, for example of technical innovations encountered, was by far the most succinct method of describing and recording items. During the survey a number of drawings of this type were made and photographs were also taken at the end of some interviews.

Assistants and interpreters

Where surveys are conducted by expatriates, assistance from a national of the country concerned will be essential. This team member is likely to be the main conduit of communications with interviewees. Consequently, responses obtained during a survey will be only as good as the assistant asking the questions, eliciting the answers and translating them to the other team members.

No matter how carefully questions are worded in the original, it is the translation and exploration of these questions by the assistant that really determines the degree to which replies are unaffected by leading, distortion and so on. An appraisal is far more likely to generate good information when the assistant fully understands the purpose of the work and the desire to obtain artisans' opinions rather than try to suggest or 'sell' things or ideas to them. While this type of understanding develops during the course of any survey it is essential to brief the assistant very fully in advance.

When selecting assistants (and any other team members) my personal prejudice is to emphasise the need for someone with good inter-personal skills: a sympathetic and interested listener who is able to communicate these qualities repeatedly to each interviewee.

A further requirement is a familiarity with the technical subject area (this need only be to trainee level). Firmly at the bottom of the list are academic qualifications in social science, since these are no substitute for empathetic personality!

• Conclusions

Artisanal activities are, for artisans and their households, primarily a strategy for spreading risk and generating cash income. More importantly, many artisans provide essential goods and services to rural communities - particularly in the provision and repair of both hand and animal powered agricultural technologies, but also in the supply of domestic items, non-agricultural tools etc.

While the role of artisanal infrastructures is increasingly recognised by organisations seeking to assist rural development, the context of these activities is often incompletely understood. This can lead to projects which are either unrealistic about or even damaging to these infrastructures.

Broader awareness of these issues can be created by sharing both the techniques employed and the results generated by artisanal appraisals. I hope that the techniques described above will contribute to the development of methods for including analysis of artisanal activities in rural appraisals. If greater awareness and effective techniques can be developed, projects may be assisted both in promoting and making use of the important resource base that artisans represent in many rural communities.

- **Godfrey Cromwell**, Project Economist, Intermediate Technology, Development Group, Myson House, Railway Terrace, Rugby CV21 3HT, England.