6

Focussing formal surveys in Thailand: a use for rapid rural appraisal

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A key stage in formal surveys lies in the identification of the topics to be explored. Commonly these increase in number, so that the survey becomes too long and unwieldy. This article describes the experience of a Centre for Advanced Training in Agricultural Development (CATAD)[1] team in focussing for a formal survey. This process is defined as concentrating on those aspects directly related to a core problem by identifying a limited set of pertinent variables to be assessed, and by identifying and using appropriate low cost data collection methods.

The CATAD-team was requested by the Thai-German Highland Development Programme (TG-HDP), a rural development project, to prepare a survey for assessing key parameters of farms and the distribution of different farm types in TG-HDP's project area Nam Lang. To focus this survey we decided to use methods from the RRA analytical toolkit.

The composition of the CATAD-team was made up according to classical RRA-demands of interdisciplinarity: the 7 team members and a team leader originated from the respective fields of agronomy, plant production, animal production, regional planning, geography, sociology and psychology. The full results of the work are reported in Nagel et al (1989).

• Location and problem setting

The Nam Lang area is situated in the North-West of Thailand close to the border with Burma. The hilly landscape is partly interrupted by steep slopes and rocky elevations. Different ethnic groups traditionally conduct shifting cultivation, which for centuries had been a well-adapted and sustainable farming system. The production system was characterized by rice cultivation for subsistence and opium cultivation for sale. But increasing population pressure and the ban on poppy cultivation has challenged the basis for this traditional production system. To try to solve the resulting problems, TG-HDP introduced a permanent agricultural system and different cash crops for cultivation.

Since it is not known whether these recently developed extension contents are fully compatible to the situation of each farming household, the CATAD-team was asked to prepare a distribution survey under the premise that it should be as time- and cost-effective as possible. The survey results should then enable TG-HDP to modify their extension concept according to different farm types.

• Procedure

After a preparation in Berlin (1.5 months) and Thailand (2 weeks), the team conducted a 4 weeks' RRA in the Nam Lang area. In the following 6 weeks we developed the Nam Lang survey design parallel to a methodology for focussing formal surveys.

The following procedure was applied:

1. Definition of the core problem, output, purpose and users of our study;
2. Definition of research topics and research questions;
3. Definition of relevant variables, indicators for these variables, their respective survey units, data collection methods for the indicators and formulation of items for the questionnaire;

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4. Training of enumerators, pretest and finalisation of the Nam Lang survey design; and,

5. Elaboration of a methodology for focussing formal surveys.

Step 1 aimed at the specification of our tasks, while Step 2 defined the fields of research in detail. Step 3 consisted of the reduction into relevant variables and their further operationalization into questionnaire items. This was done by literature research, by consultation of resource persons as well as by research during the field stay. The following example may explain our concept from the definition of variables up to the formulation of questionnaire items:

- variable: land under cultivation
- indicator: seed input per field in rai (local unit)
- survey unit: household
- data collection method: interview
- item: "How much rice seed did you use for this field?"

In Step 4, a training concept for the Nam Lang survey enumerators was developed and tested, which was combined with a pretest leading to the final survey design. By generalising our experiences made during the Nam Lang survey preparation we developed a guideline for focussing formal surveys (step 5), which is the core part of our report.

• RRA-procedure

4 mini-teams of 1-2 CATAD-members (1 natural, 1 social scientist) with changing composition in course of the RRA plus 1 translator each investigated different villages which met certain criteria (e.g. ethnic group, duration of settlement, altitude, access to market). After village stays of 3-4 days with different tasks, all mini-teams met for 1-2 days to evaluate their findings.

After an area reconnaissance phase of 3 days, the tasks for the first two village stays were to verify and define variables an indicators and to identify survey units. The third village stay aimed at testing data collection methods. During the fourth village phase, items for the questionnaire were formulated an tested in cooperation with TG-HDP trainers and enumerators. Finally, the RRA-phase was evaluated.

• Wealth ranking

We used the wealth ranking method as described by Barbara Grandin (1988) for the identification of indicators as well as for sample stratification. It was quite a problem getting the names of the village inhabitants since official Thai names and tribal name were often mixed up. Some people did not know their Thai names and, thus, official lists of village inhabitants could hardly be used. The list of names was produced during several meeting with key informants. The names of the heads of households of the village were then written on cards. Illiterate persons were assisted by reading the respective names frequently. By using the cards different persons (headman, a group of key informants village inhabitants met accidentally) were asked to divide the households according to their wealth into different groups. The number of piles varied between 3 and 7. The villagers' concepts of wealth were analysed and different wealth indicators were investigated (material of walls or roof of the house, possession of livestock or luxury goods, the quantity of cooking oil used in the kitchen, the number of shoes bought per adult per year, etc).

Due to the heterogeneous structure of the villages, no regions wealth indicator could be identified. within villages, farmers use their income to a different degree for subsistence, savings, input in agricultural goods or luxury expenditure. Wealth indicators such as corrugated iron roofs can be the result of wealth in the past, e.g. from income through poppy cultivation, and are not necessarily indicators of present wealth.

Most importantly, the wealth ranking method proved to be an excellent system for sample stratification -members of different wealth groups could easily be selected for interviews. Depending on the purpose of the respective village stay (verification and definition of variables and indicators, test of data collection methods, etc) we selected one or more households of each pile for interview. Per village stay, 3-10 households were interviewed.

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- **Estimation of field size**

The measurement of each single field cannot be done in the context of a cost-effective survey. Several potential proxy-indicators had been identified and tested during the RRA in order to get a reasonably exact assessment of the field size:

1. Area in rai as stated by farmer;
2. Labour input for seeding in person-days per field multiplied by a standard factor;
3. Yield per field multiplied by a standard factor;
4. Size of field as compared to reference fields;
5. Rice seed used per field multiplied by a village standard factor.

The first three proposals had to be rejected due to an unrealistic assessment of the size of the fields investigated, while the fourth was rejected due to the difficulty in finding suitable reference fields which are known by every farmer of the village. The proxy-indicator for field size finally chosen was the rice seed used multiplied by a standard factor of rice seed input which has to be calculated on village

average by measuring 6 fields and determining the average seed input per rai.

- **Physical model for slope inclination**

For estimating the slope inclination of fields we developed and tested a special model. It consists of three parts: (1) the ground, (2) a side which represents the farmer's field, and (3) a side with a scale to determine the slope inclination (see Figure). Side 2 and 3 of the model are joined to side 1 by hinges. The farmer moves side 2 and indicates the slope of the major part of the respective field. On side 3 the slope inclination in percent can be read.

Several cross-checks proved that the assessment by the farmers and the reality came sufficiently close, though there was a tedency for the inclination of very steep fields to be overestimated. We cannot explain why -on very steep fields one gets the impression that the field is steeper than it is - just by feeling uncomfortable (it's difficult to explain in words, we hope you understand what we mean).

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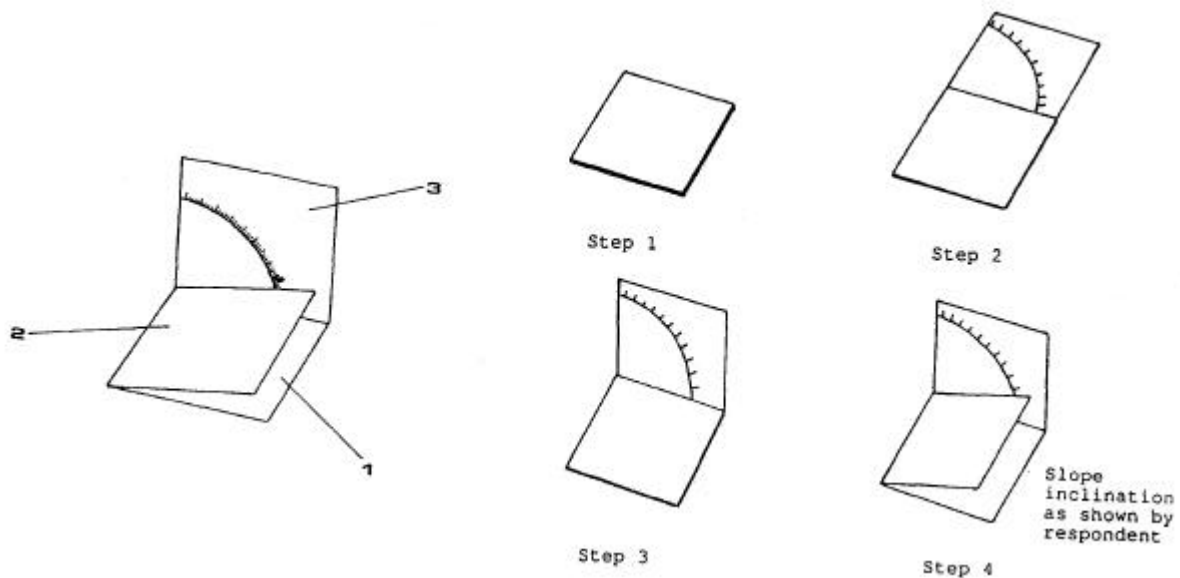
● **Recommendations**

Our experiences indicate the importance of an adequate RRA-time schedule. Documentation and analysis of the interviews took more time than anticipated. So the missing time had to be compensated for by sacrificing leisure time -a practice not necessarily to be recommended. A systematic documentation of the results and the elaboration of proper evaluation sheets would simplify the analysis.

Our experiences with the wealth ranking method used for indicator identification showed the necessity of investigating the validity of wealth indicators before their general application. Wealth ranking during group interviews proved to be most effective - lively discussions gave evidence on the villagers' points of view unless a strong hierarchy prevented contributions of under-privileged members of the community. Wealth ranking can be conducted with illiterate persons if someone reads the cards.

Since it is generally quite difficult to meet "the poor", the advantages of the wealth ranking method for sample stratification are obvious with the help of the village representatives the respective target population can be identified.

Proxy-indicators for field size and slope inclination have to be identified and tested under the respective conditions to find the most suitable ones. In the Nam Lang area, the assessment of field size by the rice seed input and of slope inclination by using a model gave sufficient information. Exact definitions of the terms used as "field" and the local measurement units have to be made clear in advance.

In summary, the staff time was higher than usual for normal RRAs. But our RRA had a different task when compared to "normal" RRAs: the focussing of a survey which includes all steps from survey preparation up to data analysis proposals. Our survey preparation took more time than the final survey -this was done within 4 weeks. It is better to spend some more time in survey preparation to limit the survey to its real needs than to do a survey getting a lot of information which may not be relevant. The really useful information arising from the questionnaire is - as it was requested for by the project -the quantitative data gained.

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