

Protocol for the Agricultural Biodiversity (ABD) Assessment in Karnataka, India

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Introduction

The biodiversity of plant and animal species both domesticated and wild used for food by humans (referred to here as agricultural biodiversity—ABD) is one of the most important assets for rural households, particularly for the poor in marginal areas such as the drylands of the developing world. A contribution of Bioversity International to the Dryland Systems CGIAR Research Programme (CRP) [<http://drylandsystems.cgiar.org/>] has been to examine systematically the diversity of these species in CRP target sites in Mali, Ghana, Malawi and India. Bioversity and partners have carried out a set of Agricultural Biodiversity Assessments in these countries. In the case of the state of Karnataka in India the selected sites include three villages in the Bijapur District: Mannur, Nandyal, Balaganur. Here we present the protocols used for collecting the data.

The objective of the ABD Assessment is to identify and quantify all the useful plant, animal, and aquatic species utilized by rural households and communities in the Dryland Systems CRP sites, as well as information on markets attended and general socioeconomic household characteristics. This information will be used to characterize three dimensions of ABD: (1) diversity in the production system, including on farm and common lands; (2) dietary diversity; and (3) market diversity; in terms of the elements and relationships involved and the exogenous factors that influence their status and dynamics. These data will be the basis for analyzing the roles of ABD in the lives and livelihoods of these rural populations in order to identify entry points for designing and implementing interventions that contribute to improve their well-being.

In Karnataka the ABD Assessment consists of a household survey in the villages selected by ICRISAT to implement the Dryland Systems Program. The sample will involve approximately 67 households per village, for a total sample size of 200 households. The household survey contains two sections:

- (a) One that elicits information on the ABD use by the household;
- (b) Another that elicits information on foods consumed by specific members of the household.

The criteria for determined to whom each section should be applied to is presented in the appropriate section.

There should be a close communication between national partners in each site and Bioversity office in Bangaluru to update the list of species and as additional information is gathered.

Once the FGDs for all villages have been completed, the teams will proceed to carry out the household survey.

Protocol for the Household Survey

The household questionnaires will be carried with the SAME households interviewed for the ICRISAT baseline survey seven study villages. It is very important to use an identification system that allows linking our ABD survey with the ICRISAT baseline survey.

The survey consists of four components:

- (a) useful biological diversity in the production system (on farm, and those species harvested from forest and community land including water resources);
- (b) markets;
- (c) dietary diversity;
- (d) general socioeconomic information

The survey is divided into two questionnaires. One elicits information on biological diversity, markets and general socioeconomic information (ABD questionnaire). The second one elicits information on dietary diversity of a woman and a child. The questionnaires are provided in two additional files. Specific instructions to elicit the dietary diversity are provided in the specific questionnaire.

The ABD questionnaire will be applied together to the male head of household and to the women selected according to the criteria explained below. The Dietary Diversity questionnaire will be applied only to the woman. The selection criterion for that woman is as follows: (1) a mother in the household between 15-49 years old with a child aged between 6-59 months. If more than one member of the household has these characteristics then choose one randomly (see additional instructions for the dietary diversity section below). (2) If no mother in the household has a child of that age, choose a mother within the age group 15-49 years. If none is available, chose the woman who customarily prepares the food in the household irrespective of age. Most questions about species refer to a specific season of reference (either the Kharif (wet) season 2013 or the Rabi (dry) season of 2013/14).

ABD questionnaire

The ABD questionnaire elicits information on the following aspects:

- Useful biological diversity in the production system by specific season (on farm, and those species harvested from forest and community lands as well as rivers and ponds)
 - Species characterization in terms of
 - seasonality, water regime, objective of production, importance, parts used, uses
 - Seed systems
 - sources, transactions, social relations, locations
 - Infra-specific diversity
 - number and types of varieties
 - Gender: management and decision-making

- Markets: purchase and sale, in terms of:
 - agricultural products
 - foods
 - seeds and planting material
 - inputs
 - other consumer goods

- General socioeconomic information, in terms of:
 - Age
 - Formal education
 - Ethnicity
 - Family size
 - Type of household
 - Assets (house building material, transportation, consumer items)
 - Landholdings
 - Animal holdings
 - Water management
 - Sources of income
 - Knowledge and participation in formal and informal organizations
 - Participation in government programs

Dietary diversity questionnaire

The Dietary diversity questionnaire comprises three sections: (1) women and child dietary diversity; (2) infants and young child feeding practices; (3) household food security. Includes the following information:

- Foods and ingredients consumed specifically by a mother and a child 6 and 59 months in the previous 24 hours; includes information on sources : self-produced, purchased, bartered, payment in kind, collected

- Information on infant and young child feeding practices
- Household food security (this questions do refer to the whole household not just to the women being interviewed, but it should be her who provides the information)

For undertaking the HH survey, there will be a team of a man and a woman interviewers working together. The ABD questionnaire section will be done with both the man and woman participants together and aims at eliciting information on ABD maintained by both. It is important to probe for species grown specific by the women, even if in small quantities. The Dietary Diversity questionnaire will be done by the women enumerator interviewing only the woman respondent.

The ABD questionnaire has many pre-defined categories as answers of the questions, however, there may be answers provided by the interviewee not included. It is very important that in this case, the enumerators write down the specific answer and not just include the category “other.” For questions where the answer is “yes or no,” please do not include other categories. There are questions where there can be multiple answers (categories), the enumerator should write all the categories cited by the respondent, using a comma to separate the codes. Instructions on these issues have been included in the questionnaire.

The procedure to carry out Dietary Diversity section is included in the actual dietary diversity questionnaire.