A guide for practitioners: How to identify and document custodian farmers?

We often talk about custodian farmers; several countries recognized them by facilitating awards and we often interact with them about what they do on their farm. However some questions remain, “what do we really mean by custodian farmers?” “What are the characteristics of such custodian farmers?” “What role can they play for on-farm and in-situ conservation projects and beyond?” This guideline aims to help practitioners to identify and document such custodian farmers in a systematic manner for better understanding and to enable targeted support towards custodian farmers.

What are the potential benefits of collaborating with them?
- A low cost approach and entry point for on-farm and in-situ conservation programs
- Access to key genetic resources at local level for scientists and other farmers
- Nodal points for collaborative research; i.e. regeneration, dissemination & field trials
- Allows continuous updating, innovation and adaptation of knowledge
- Empowers farmers by recognizing their breeder and conservation role
- Conserves rare types that fall outside of the priority list of national and international gene banks

Introduction
Agricultural biodiversity contributes to reducing malnutrition, alleviating poverty and combating climate change challenges but this diversity is in danger of disappearing and global commitments to support conservation are limited. Despite this global scenario of biodiversity loss, there are still a few farmers who actively maintain, adapt and disseminate agricultural biodiversity, and who possess the knowledge needed for its use and cultivation. Such ‘custodian farmers’ maintain diverse portfolios of agricultural species and varieties, select varieties adapted to local conditions and promote the use and conservation of local diversity among their friends and neighbours, even in the absence of any tangible incentives. They are well recognised in their communities for their efforts.

Many people have reported the existence of such farmers and their significant contribution to conservation and use of genetic diversity on-farm/in situ (e.g. Altieri, Anderson et al. 1987, Sperling & Berkowitz 1994, Lilja, Ashby et al. 2001, Jarvis, Hodgkin et al. 2011). However, until recently, there has been a lack of methodology to guide frontline researchers to identify such custodian farmers and understand their characteristics. The sources of motivation for custodian farmers are poorly understood and documented. Their unique characteristics, how they differ from average farmers, and the roles they play in the conservation and use of agricultural biodiversity are still not well understood. As far as we know, no systematic research has been done concerning these custodian farmers but it is feared that their number is dwindling, given that around the world young rural dwellers are not very keen to continue farming.

Few research questions we need to ask:
- What is a custodian farmer?
- How to identify them?
- How could we consolidate the current roles of such farmers?
- How could community and government support them?
1. Definition

Several consultations resulted in a refined working definition of ‘custodian farmer’:

Custodian farmers are those farmers (men and women) who actively maintain, adapt and disseminate agricultural biodiversity and related knowledge, over time and space, at farm and community levels and are recognized by community members for it. Often, custodian farmers are actively supported in their efforts by household members and community.

2. Identification process

A standardized approach was developed to identify such male and female custodians, which involves the following aspects:

- Use earlier information collected during focus group discussions and surveys to identify a list of potential men and women who have unique or high number of species or varieties
- Conduct focus group discussions or consult key community informants to discuss the definition, functions and characteristics of a custodian farmer for identifying potential candidates
- Formulate checklist questions based on definition, functions and characteristics of custodian farmers for semi-structured interviews with potential candidates
- Short-list a potential 5-6 farmers in each community and carry-out informal interviews with selected individuals and families to document their story
- Record conversations by audio or video recorders, take pictures of the farmer, family and surroundings and document the personal stories in 1 to 3 pages.
- Use four cell analyses to assess the level of richness and evenness of the species or varieties found on their farm
- Most importantly, try to understand the triggers and driving factors for the farmers to maintain, adapt or promote diversity supported by compelling or anecdotal stories

3. Documentation for understanding:

The information collected from the interview with the custodian farmers are transferred into a custodian farmer profile using below structure:

- Introduction – household, landscape, farm, livelihood activities
- Maintain – which crops and landraces, how many?
- Promote – share knowledge and seeds – which and how?
- Adapt – improve, evaluate or select seeds – which and how?
- Motivations – Anecdotal stories showcasing why?
• Unique features – why is this person special or different than others?
• Continuation – involve younger generation?
• Support – needs and requests

4. Source of motivations

All farmers or farming communities, either knowingly or unknowingly, are contributing to some level of in situ conservation of tropical fruit tree diversity. However, some farmers are more motivated than others. The source of their motivation can be diverse and a combination of following internal and external sources:

• Personal - driven by personal interest, willingness to learn or sensitivity regarding the need for conserving diversity for future generations
• Social - driven by the desire to protect inheritance, family pride or conserve particularly relevant crops for its benefits towards the community
• Economic - driven by the search for new or a portfolio of economic options for income generation
• Cultural - driven by the intimate link between crop diversity or unique species and its cultural or religious meaning
• Environmental - inspired by improving the ecosystem and sustaining the natural environment for current and future generations
• Political – driven by the recognition from government for their breeder and conservation role within the food system

Their role can be also supported and encouraged by other peers, community members or institutions who provide them recognition and visibility before the community which serves as an incentive for their work. Better understanding of the source of motivation helps to design effective and efficient interventions or support strategies.

5. Evaluation

An initial typology of four types of custodian farmer was identified. Within farming communities one can find a) farmers who maintain a rich and unique portfolio of species and varieties, b) farmers who maintain and promote a portfolio of species and varieties, c) farmers who maintain and adapt a portfolio of species and varieties, and d) farmers who actively maintain, adapt and promote their set of species and varieties (Figure 1).

Discussions and case studies suggest that boundaries between the types of custodian farmer might be blurred depending on the local context, including the crop type, local culture, environmental conditions and the level of exposure to new knowledge and geographic locations. What is important to note, however, is that custodian farmers are often central actors in local institutions for community based management of crop diversity, such as community seed banks (CSBs) or community forests, in which they play nodal roles driven by their own set of motivations. Custodian farmer’s roles and motivations can also change over time due to exposure to new knowledge and information or interventions by external agencies. The purpose of the typology therefore is to highlight the diversity of custodian farmers one might expect to find in the field.
6. Characteristics

The following five characters can help in identifying custodian farmers. They can be present altogether or in part. The intensity of each character present in the custodian may also vary and so would be the level of ‘championship’ of the conserver farmer. It is felt that a good custodian farmer (or group) should have a good mix of all of these. Because of the difficulty in assessing these qualities in a custodian, we should always refer to the judgment of the community in a process of identification. However, the intention is not to raise a single individual above the other members of the community, but that of selecting a ‘focal point’ with whom dialogue and promote on farm conservation for the ultimate benefit of the entire community.

Table 1: Characteristics of custodian farmers of tropical fruit tree diversity

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
<th>Indicators</th>
</tr>
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<tbody>
<tr>
<td>1. Driven by conservation ideology</td>
<td>Maintain rich diversity of tropical fruit species (richness interns of both inter and intra-specific) above the average farmers</td>
<td>Needs to be a guardian of at least one unique and rare variety- value, rarity and difficulty in conserving material</td>
</tr>
<tr>
<td>2. Knowledge traits holder</td>
<td>Holds the knowledge on the usefulness of traits of varieties. Holds the knowledge about propagation techniques, production, storage, processing and use of the local varieties and seeds</td>
<td>Community members and researchers consult the farmer about his or her knowledge on tropical fruit diversity and use</td>
</tr>
<tr>
<td>3. Community recognition</td>
<td>Custodian farmer is recognized by his/her neighbors or community members as someone who conserves local seeds and/or knowledge.</td>
<td>Farmers and researchers frequently cite his contribution in management of unique TFTGR; Nodal farmers identified by snow-balling sampling method of farmer seed network analysis (Subedi et al., 2003).</td>
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<tr>
<td>4. Highly motivated</td>
<td>Strong personal motivation in conserving</td>
<td>Empowered local individual</td>
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and self-directed

local varieties and not depending upon external support for continued conservation and use.
driven by self-motivated and self-directed mission

Demonstrated on the ground by the example (Walk the Talk)

5. Consistent commitment

Grow the diverse variety (even on small amount of land) for at least the last 5-10 years even without immediate use or income generation from it. Use varieties themselves and encourage others to do the same.

Richness of fruit tree diversity in home gardens/orchards

Shows willingness to share materials and knowledge to the community members

Self-driven documentation

7. Support

On farm conservation is entrusted to custodian farmers who maintain and multiply the local varieties/trees/breeds which have been entrusted to them. Conservation agencies, research or development institutions could try to identify and support custodian farmers. The selection of custodians can be based on his engagement in the conservation of regional resources, specific experience and proven professional skills. In return for the willingness to share his knowledge and the genetic resources he or she has, the custodian could be reimbursed or compensated for these services by monetary or non-monetary benefits. Options of support identified by custodian farmers and researchers include a) facilitate exchange of knowledge and seeds, b) support in the registration of their particular species or varieties, c) technical advice and training on agronomy and markets, d) recognition of their conservation role by awards and certificates e) financial support and f) involvement in research.

8. Tips for implementation:

- Take at least 2 days time to be in the field with the farm households to obtain good insights of the farmer practice.
- Formulate checklist questions, record conversations by audio or video recorders, take pictures of the person, family and surroundings
- Try to capture the anecdotal stories which confirms and provide proof for characteristics, motivations or functions of the respective custodian farmer
- Collect passport data such as in below table

<table>
<thead>
<tr>
<th>Name of custodian farmers</th>
<th>Contact address Coordinate (GPS)</th>
<th>Land holding (ha)</th>
<th>Species and varietal diversity</th>
</tr>
</thead>
</table>

This is a first comprehensive implementation guide for custodian farmers; when you find any difficulties or suggestions during implementation please let us know. This is an innovative area of work and we will appreciate your comments and refinement on the method.
Expected outputs for TFT project
At the end of the project (Dec 2013), the project will document at least 36 custodian farmers from 36 communities of four countries. However, experience suggests that this number might be much higher and we should be able to document them. The stories will be published as the Custodians of Tropical Fruit Tree Diversity in Asia. All contributors will be acknowledged and shared in authorship.

References
http://www2.bioversityinternational.org/publications/1253/Nepal_traditional_rice_variety.pdf


http://www.underutilized-species.org/documents/Documenting%20custodians%20and%20their%20roles-methods.pdf
