

Women's Wisdom: Documentation of Women's Knowledge in Agriculture

(Case studies from Philippines, Thailand and Pakistan)

PAN AP

**Women's Wisdom: Documentation of Women's Knowledge in Agriculture
(Case studies from Philippines, Thailand and Pakistan)**

Pesticide Action Network Asia and the Pacific

Copyright 2012

Authors:

Victoria M. Lopez and Marila Castro (SIBAT, Philippines)

Montawadee Krutmechai and Varuntorn Kaewtankam (RRAFA, Thailand)

Nasira Habib (Khoj, Pakistan)

Edited by: Victoria M. Lopez

Project Coordinator: Marjo Busto

Copy Editor: Shakunthala Devi

Adviser: Sarojeni V. Rengam

Cover Design & Layout: Jennifer T. Padilla

Printer: Jutaprint, Penang

PAN AP

P.O. Box 1170, 10850 Penang, Malaysia.

Tel: + 604 657 0271 / 656 0381

Fax: + 604 658 3960

Email: panap@panap.net

Website: www.panap.net

ISBN 978-983-9381-58-0

Table of Contents

Introduction	5
Background	9
Philippines	17
Indigenous Women Farmers of the Blaan Tribe in the Philippines	
Women's Knowledge in Traditional Crop Production	
<i>Introduction</i>	
<i>The Blaan tribe</i>	
<i>Role and status of women in the Blaan households and community</i>	
<i>Datal Nay community of Sarangani Province</i>	
<i>Indigenous Knowledge System of the Blaans</i>	
<i>Traditional practices and the planting cycles</i>	
<i>Indigenous harvesting practices and women's role in seed selection</i>	
<i>Women in food preparation</i>	
<i>Changing contexts of the traditional Blaan agriculture</i>	
<i>Women farmers as seed keepers and holders of indigenous knowledge</i>	
<i>Indigenous knowledge systems and ecological agriculture</i>	
<i>Changes in the traditional structures of seed conservation</i>	
<i>Transforming gender relations to empower Blaan women farmers</i>	
<i>Conclusion</i>	
Thailand	41
Phu Tai Women of the Northeast Region of Thailand	
Women's Knowledge in Post-harvest, Processing and Marketing	
<i>Introduction</i>	
<i>Weaving - A traditional role played by northeast Thai women</i>	
<i>Plant extraction and usage</i>	
<i>Vegetable growing and mushroom culture</i>	
<i>Collecting food from natural sources</i>	
<i>Women as keepers of plant and animal genetic resources</i>	
<i>Women's role in soil preparation</i>	
<i>Herb preparation</i>	
<i>Harvesting firewood</i>	
<i>Bamboo shoots and pak-sian</i>	
<i>Fish preservation</i>	

Traditional sweets from rice
Rice preservation
Coconut processing
Northeast women's knowledge in market development
Marketing of vegetables and Khanom Khee Ma
Marketing of handwoven cloth

Pakistan

67

Women Farmers of Pakistan

Women's Knowledge in Traditional Livestock Keeping

Introduction
Focus: Women farmers of Punjab
Key Issues
Women – custodians of traditional knowledge
Roles and responsibilities and their interface with creation of knowledge
Khursaid case study
Women as food growers for the family in the present-day context
Women as care givers and healers
Health tips and remedies
Human health
Summer Drinks
Milk animal-keeping
Chemical pesticides and home remedies
Validation of traditional knowledge
Conclusion and recommendations
Sample: Semi-structured Interview Questionnaire

About the Authors

93

Introduction

Construction of Women's Knowledge

By **Nasira Habib, Khoj** – Society for People's Education, Pakistan

Scientific thought is the common heritage of mankind,

Dr. Abdus Salam, Noble Laureate

In the construction of traditional knowledge, knowledge cannot be abstracted from the needs and interests of its producers; the knowledge produced will always represent some set of needs, goals, and interests.

Women's needs, goals and interests are clearly embedded in their designated roles and responsibilities leading to differences in perspective, and these differences carry epistemic consequences. Women's contributions to subsistence and child-rearing result in a systematic difference of experience across the genders.

On the methodological side, there is no separation between the creator of knowledge and the object of the knowledge in nature. The attempt is not to dominate and conquer nature. Nature itself is conceptualised as active rather than passive, a dynamic and complex totality requiring human cooperation and understanding rather than a dead mechanism, requiring only manipulation and control. The researcher is not detached and oblivious to the direct effects of any given action. She is not only a producer but also a consumer who has a range of considerations, concerns and associations which are all relevant in the process of discovery. In her quest of finding appropriate food for a given sickness, she would be the last person to resort to the use of chemical pesticides to tend the soil and to grow the plants. For her, growing plants or rearing animals is not an isolated activity; she has to think about the food requirements of the human body, ill effects of

the poisons on human health and the hazards of an unclean environment. Her thoughts would not be limited to that only but on the taste, texture, cooking suitability and the nutritional properties of various varieties.

Living in harmony with nature and reflective observation taught them the harm of over-consumption. This understanding gave birth to a number of time-tested ethical values of leading a simple life, managing within local resources, assigning lower value to display of riches, cooperation and collective action, thoughtful use of resources and less importance given to capital. Absence of separation between food producers and food consumers gave tremendous insights into the dangers of unscrupulous spending and over-consumption.

Farmers developed agriculture practices which were affordable, used local inputs, integrated to other facets of life, were practical and result-oriented. They had clear objectives in mind and they could not afford to spend resources on doing research for the sake of doing research. Sustainability always remained high on their agenda.

Women's traditional knowledge originated from the actual needs, problems, interests and aspirations at home and in the communities, took birth in the fields, homesteads and forests. This was in direct contrast with the modern scientific method that works in isolation from the realities. In the traditional creation of knowledge in agriculture, ideas, experiences and experimentation were widely shared and discussed. The very phenomenon tremendously helped the improvement, further experimentation and generation of new ideas. It was no coincidence that only in India that there were more than thirty thousand varieties of rice all developed by farmers; the varieties which responded to various ecologies, culinary tastes and nutritional requirements.

In this inductive method that was rooted in the diversities and integratedness, sophisticated theories emerged which transferred from generation to generation but could not be documented because farmers

in general and women farmers in particular were denied the tools of literacy and the resultant empowerment they could have enjoyed.

On knowledge and political power

Women do not get recognition for their contribution but if asked specifically and inductively, nobody denies the roles they play and the responsibilities they fulfill.

Before the advent of modern science, the world has seen great civilisations. Asia has housed most of those civilisations; the Indus valley civilisation being one of them that flourished in the plains of Punjab and Sindh. The geographical area of our study is located in the heart of that ancient civilisation. Developed and organised agriculture was the hallmark of this area when many others were yet learning how to cultivate and were gathering food from the jungles.

Women, being active partners in those civilisations, are the custodians and carriers of a sea of knowledge but their wisdom, their perspectives and their practices see no recognition in history nor in present times. As is famously said, "knowledge is power." But despite having unfathomable knowledge, the community of women has not been able to command recognition for their service to humanity.

Women's knowledge could not be translated into political power. It was not just coincidence but sophisticated theorising and delicately woven rules which relegated women to endless labour without bringing their contribution on record.

Women's ability to control the environment around them, including the behaviour of other people has been blunted through institutionalised deprivation of land knowing fully well the central role land plays in vesting political power in a person. As a blanket law, women were denied all

rights, control and decision-making on the land they worked on all their lives. Economic dependence crippled women physically, emotionally and psychologically. They were taught to live for others; they were the caregivers of the society. On top of that, they were required to live for the honor of men in the family that was, in other words, walking on a tight rope throughout their lives.

Economic dependence of women coupled with social, cultural and emotional reliance and a burden of double standards of morality gave men unprecedented and unmatched political power. This system created various kinds of subordination for women who were not only sweating to provide labour but were satisfying the men's emotional needs of love and care as well.

This unchallenged power base does not necessitate in any way to recognise the contribution, knowledge or perspectives of women who have been systematically subordinated.

Background

By **Nasira Habib, Khoj** - *Society for People's Education, Pakistan*

Victoria M. Lopez - *SIBAT (Well-spring of Science and Technology), Philippines*

Women's Wisdom, consisting of several case studies on Asian rural women came out as a breakthrough effort in 2006. It was soon followed by a second set of case studies (Phase 2) that discusses the roles, knowledge and skills of women in Asian agriculture.

The project aims to:

- Recognise women's knowledge and role in agriculture
- Empower women in the use and development of this knowledge and control of resources
- Utilise the knowledge as an alternative to modern agriculture practices
- Share the knowledge through training workshops and exchange visits with communities in other Asian countries

For Phase 2, the group constituted by Thailand, Pakistan and the Philippines decided to focus on the following:

1. The documentation of rural women's indigenous knowledge within the changing contexts (showing political and socio-economic conditions) and the barriers of modern agriculture, erosion of biodiversity and the status of women in the communities with particular focus on patriarchy.
2. The documentation of women's knowledge and skills, perspectives and decision-making processes to cover how women were able to

develop (and preserve) their skills and knowledge in agriculture, and the theory and philosophy behind the knowledge and skills.

3. The documentation of oral tradition of songs and poetry, spiritual and cultural practices where women played significant roles.

The documentation project decided on two outcomes: the case studies which shall contain the actual documentation of experiences by the three countries, and the methodologies derived from the actual documentation. The latter is a "how-to"/training module for documentors, researchers, practitioners. The module will ensure that the entire process of documentation research can be replicated.

Framework of analysis

The case studies were developed along the following views on women's knowledge:

1. In real life, knowledge cannot be abstracted from the needs and interests of its producers. Women's knowledge takes birth, therefore, from their roles as:
 - Farmers and livestock keepers
 - Food managers
 - Procreators
 - Healers and caregivers
2. The present work recognises too, that though women played an active role in the creation of knowledge, neither in tradition nor in the present-day knowledge systems is their critical role recognised.

3. Women's logic and perspective of knowledge creation is different from those of men's. What is warranted is to understand the purpose and logic behind the creation of knowledge by rural women. It is also important to understand the construction and politics of gender relationships so that the factors behind the shadows of darkness on the knowledge created by women could be well understood.
4. The invisibility of rural women's contribution is a challenging issue. Innovative approaches and methods need to be developed to break the wall.
5. Women's role in agriculture has never been static; it changes with the changing realities and contexts. After the Green Revolution, women were further marginalised and have been thrown out of what had been their sphere of activity all along. The rapidly changing roles have serious repercussions on their contribution in the creation of knowledge.
6. Therefore, strategies which relocate and reinstate women's critical role in ecological agriculture in the present day context need to be developed.
7. Documenting women's knowledge cannot be a mechanical and isolated study of just the technical points. The researcher has to be free of the narrowness of the so-called modern scientific method. Such a methodology is useful only when it is participatory, inclusive and leads to a process of learning and exchange of ideas.

Methodology

Doing research with women or about women especially in the field of agriculture is a challenging task because their work is largely different from other sectors; their contribution is not recognised, their roles are invisible and they are hidden behind a male-centred ideology of the division of labour and power relations. The present study recognises the absolute need of a researcher who is gender sensitive, understands the power dynamics which define gender roles and responsibilities and is sensitive to the cultural and social niceties and is trained in conceptual analysis and qualitative research. Researchers are required not only to have an understanding of the research methodology but must have a sympathetic awareness of women's issues and situation. A belief in women's ability to participate in community development activities and planning is of vital importance.

During the course of the present research, the process was not divided into mutually exclusive compartments of data collection, data compilation, data analysis and report writing. Instead a holistic and participatory approach was adopted. The researcher actively participated in all the processes herself.

Given the complex and layered nature of the socio-cultural dynamics influencing women's lives in rural societies, it was thought imperative to take necessary steps to prepare the grounds for reaching the minds and hearts of the women involved in the research. Staying with the community helps build relationship and a rapport, enables one to gain mutual trust and have insights into the socio-cultural niceties, issues and the internal gender dynamics. It paid real dividends when the above process led to establishing a real dialogue between the researcher and the responding participants.

A questionnaire was developed to ensure that each answers the same questions. As the nature of the research with women demanded more of qualitative data, it was decided that the questions would be open-ended. Open-ended questions lead to semi-structured interviews. The questionnaire was designed for free-flowing interviews. It was not planned to be a mechanical question-answer exercise. Instead of taking notes on paper, a tiny sound recorder was used, that was less threatening for the respondents and in the absence of a third strong element in between, it was a free flow of ideas and a real dialogue. The strong rapport between the researcher and the respondents further reinforced the dialogue. Listening to the recordings was time consuming but it was found worth the effort. Free-flowing interviews offered much more information than originally planned.

While researching with rural women researchers found the following limitations in the questionnaire-based and semi-structured interviews:

- The depth of answers is limited.
- By designing a “list of questions”, a researcher decides in advance what is important and what is not important.
- It is difficult to win the trust of women. The distance between the researcher and women remains wide.
- It is more of extraction of information than anything else.
- Though a lot of barriers were broken, a lot of personal, social, cultural and political information is still held back. For instance, women do not talk about the restrictions imposed upon them to visit their paternal family, if there are any. They do not give the real picture of the discrimination against girls and women in terms of the quality and quantity of food. They do not talk at all about honour killing. In agriculture, they want to give a “cleaner” picture of themselves and generally deny their role

and contribution in agriculture. They see agriculture in terms of ploughing and irrigation, the jobs which are not traditionally done by women. They deny, therefore, that they are also farmers.

- For a researcher, sometimes it becomes difficult to understand the cultural expressions of land ownership in terms of size, women's ownership of land and the number of children they have.

The above shows that rural women and the researcher may have different contexts and perspectives on things. Many times they make the same statement but with different meanings because they represent two different realities.

The above limitations make a very strong case for the participant observation method.

Observation helps one to learn, especially when one is staying with the community:

- Who makes decisions in daily household matters? For instance, food of whose choice is cooked and why?
- Who decides about match-making?
- Who is the real decision-maker in case of joint families?
- How is the relationship amongst different members of the family?
- What are the contributions of various family members in housework?
- Are there limitations on women's movement?
- What are the religious beliefs and their impact on women's lives?

Direct observation was also critical in crosschecking data obtained through interviews. A direct observation checklist was prepared that included a

section on perceived relationships among family members which was important in analysing male-female dynamics in the household.

Focused group discussions (FGDs) help cross check the data collected so far. More importantly, they allow for example, the expression of controversial issues, power struggles and collective concerns. A row between a landless and a landed woman on their respective income levels raised a number of issues around landless women, their struggles, their contribution in agriculture and their knowledge. FGDs also bring to the fore persons known for their unusual contribution in the socio-political or technical sphere of the community life. These discussions thus pave way for case studies on various facets of village life, skills, knowledge and contributions.

Rapid appraisal techniques help gather information and insights in a very short span of time, such as:

- Seasonal calendar to see labour patterns according to seasons
- A woman's life cycle diagram
- Mobility mapping
- Daily routine diagram to assess the typical daily pattern of women's lives. It is useful in determining the burden of household responsibilities and the appropriate schedule for future community activities. It is also useful for crosschecking women's information about their time use.
- Decision-making matrix
- Historical diagram
- Preference ranking

Rapid appraisal techniques support focused group discussions on both technical and social issues.

Literature with reference to the documentation of indigenous knowledge, especially women's knowledge was also reviewed.

Field validation of the traditional knowledge and skills was not deemed necessary, as a lot of the knowledge is still in practice in scattered unorganised forms in the communities. Instead, the observation method was used to document their knowledge and practices.

Using the above tools, techniques and methods in an integrated way helps make a gestalt of women's role, contribution, knowledge and skills.

PHILIPPINES

Indigenous Women Farmers of the Blaan Tribe in the Philippines

WOMEN'S KNOWLEDGE IN TRADITIONAL CROP PRODUCTION

Victoria M Lopez and Marila Castro
SIBAT

Introduction

This research confirmed that many among the indigenous peoples in the Philippines, in the face of significant economic and political changes in their societies, have retained indigenous knowledge nurtured in their agricultural history. This retention is found to be in direct relation to the degree of both the resilience and decline of their traditional farming. The main factor driving the destruction and decline of traditional agriculture is 'modern' agriculture, introduced into the country in the 1970s and made to pervade everywhere even into the mountainous regions inhabited by indigenous peoples.

This research is focused on traditional agriculture, and women's role and indigenous knowledge on seed conservation of the **Blaan tribe of Lumad Mindanao**.

It reveals two features that are important to the lives of Blaan indigenous peoples: the central importance of the rice crop and of the rice seed resources; and the crucial role of cultural practices in traditional agriculture found to closely underlie the common desire to achieve a good harvest for and preserve the cooperative fabric of the Blaan community.

Women are found to contribute to nearly all facets of Blaan traditional crop production, but it is in the abovementioned aspect of seed resources that women are found to play the most important role. They are regarded as the keepers and the force of continuity of the community's indigenous knowledge system in the conservation of genetic resources. The community recognises these roles with women taking charge of planting and harvest rituals. Women's knowledge has remained relatively intact, in places where traditional farming and traditional seed varieties remain. This is found to be true despite the persistence and dominance of patriarchal relations in their society.

The tasks of women in the Blaan agriculture are tied not only to seed keeping, but to the entire process of crop production that ensure: the quality of food production (with good yield, resistance to pests and other problems); availability of food (with desired eating quality) on the table; availability of traditional plant-based medicine for the family; and the practice of rituals and festivities that preserve the community's life fabric as indigenous peoples. The women are regarded to have a distinctive conserving and nurturing nature that qualify them to undertake the meticulous and nurturing tasks of genetic conservation within the customary farming tradition.

The roles of women in crop production are revealed in the changing context of the particular farming community of the Blaans in Sarangani province of Mindanao.

The Blaan Tribe

The Blaan Tribe is one of the many indigenous tribes of southern Mindanao, largely found in the provinces of South and North Cotabato, Sarangani Province, General Santos City, and Davao Del Sur.

The Blaan tribe is the 4th largest tribe among the 18 ethnic groups that were recorded to have inhabited Mindanao long before the Spanish colonisers discovered the island.¹ Population estimates made in 2006 revealed that at least 500,000 Blaans are currently spread across the mountains of South Cotabato, Sultan Kudarat, Sarangani, Davao del Sur and North Cotabato.

Their population and spread in the region thus have placed them in a significant position in the non-Muslim ethnic part of Mindanao (collectively referred to as Lumads²). It is important, at this juncture, to make mention of the conflict-ridden context of Lumad Mindanao where Blaans and other ethnic groups survive and wage a continuing struggle to assert their rights to land and development, together with their Muslim brothers with whom they have chosen to remain distinct from.

Changes that transpired in the socio-political contexts of Mindanao over time have resulted in corresponding changes in the political structures of the Lumads, including those of the Blaans. While there is a significant weakening of the roles of the traditional leadership on the whole, certain elements still remain, particularly in areas where the presence of elders is yet strong. In these areas, the institution of elders called the *bong fulong* or the body of elders led by the tribal chieftain or *fulong*³ -- plays a distinct complementing role to the administrative functions of the local official government. The *bong fulong* is consulted on the settlement of disputes

¹ The word "Bilaan" is said to have been derived from "bila," meaning "house," and the suffix "an," meaning "people," so that the term may be taken to mean "people living in houses." Other terms that have been used to refer to this group are Blaan, Bira-an, Baraan, Vilanes, Bilanes. Names such as Tagalagad, Tagakogon, and Buluan have also been used denoting however, particular sites where some Bilaan groups were located.

² The name Lumad grew out of the political process among various tribes during the repressive period under President Ferdinand Marcos, propagated by Lumad-Mindanao, a coalition of all-Lumad local and regional multi-sectoral non-Muslim ethnic organisations. Representatives from fifteen tribes agreed in June 1986 to adopt the name 'Lumad', the first time that tribes have agreed to a common name distinct from the Muslims and from the migrant majority and their descendants in Mindanao.

³ A person is elected a "fulong" if he has earned the respect of the people in the community by his wisdom on the traditional culture and society, and has given sound decisions and suggestions to the community. It is not necessarily passed on in the family.

(such as land and marital issues), arrangements and community rituals, or matters that relate to tradition and those that cannot be settled through the local government process. There is a consultative process established at the *sitio* or town level through interplay of the traditional leaders and official local government unit, before cases are brought to the *bong fulong*.

Many Blaan communities are facing difficulties in transferring cultural tradition to the younger generation, attested to by the elders. Those with strong elder presence still retain certain cultural patterns distinct of the tribe -- in architecture, clothing, ornamentation, and socio-religious practices. In areas where traditional farming has remained relatively practiced, long dance rituals accompanied by Blaan traditional music and few remaining indigenous musical instruments, are still made for each stage of rice planting. There is relatively strong adherence to customary rituals in traditional farming, such as the seeking of blessing from the *adwata* or supreme being.

Role and status of women in the Blaan households and community

Within the generally weakening indigenous patterns of Blaan lives, the traditional gender pattern within the household remains strongly paternal or male dominated. Women's role is mainly in the home, as mothers and housewives. Men hold the household cash (especially what they earn) hence, it is them who mostly decide on what goods are to be purchased for the household. Decision-making rests mainly on the men, including how many children to have.

Childhood betrothal that is mainly arranged by the men of both parties is still a practice. Men having multiple wives up to three (3) is still a norm among the affluent men who can afford the *sunggod* or bride price. In traveling, the husband rides the horse or walks, while the wife carries the goods or children behind him.

Women can own land inherited from their parents. Customarily, however, land is preferably given to men by the parents before marriage, rather than to women who are expected to depend entirely on the husband.

In families, marriage and dowry for the girl-children are given more significance, rather than education. Generally, educated men are given higher regard than educated women in the Blaan community.

Finally, the women cannot hold a position in the *fulong*, solely assigned to men. They however participate in the selection of the tribal chieftain through a community meeting or process.

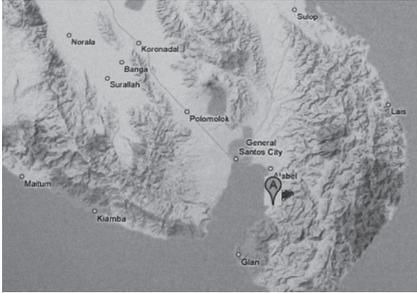
Role of women in the household, food gathering and health. Women hold the domestic responsibilities of child-rearing and food gathering and preparation, serving and distribution of food during occasions. Even if the woman has a share in producing the meal, the wives wait on the husband and guests during mealtime.

Healing is a traditional role of women related to their task of food gathering -- as traditional healers (and as spirit communicators called *almos*). The latter are older women who gather herbs for healing and thus have the knowledge of their kinds and uses. With the depletion of forest resources, however, the practice of traditional healing and the healers are being lost in time.

Focus: Datal Nay Community of Sarangani Province

The study is focused on the Blaan community of Datal Nay, one of the sitios of Barangay Pag-asa, Municipality of Malapatan, Sarangani Province, in the Southern part of Mindanao, Philippines.⁴

⁴ *The community is surrounded by Sitio Kyugam, its sub-sitio El Naob and Sitio Lsok in the northeast; Sitio Dungan Bahay in the south; Sitio Kikong and sub-sitio Kari in the southwest; sub-sitio Datal Gufisan in the southeast; and sub-sitio Alna in the north.*



Marker A shows the town proper of Malapatan, Sarangani Province in the Southern map of Mindanao.



The marker shows the location of Sitio Datal Nay, Brgy. Upper Suyan in the mountainous part of Sarangani Province.

Sitio Datal Nay is an upland community seated on a valley of about 20 hectares of production sites for upland rice and corn, and is bordered by patches of primary growth forest in the eastern side by Davao Del Sur in the Longkan Range, and largely by secondary growth forest and slash-and-burn or *kaingin* areas.



Landscape of Sitio Datal Nay. A plateau of 20 hectares surrounded by the Lonkan Mountain Range.

The community is not easily accessible from the outside for many months of the year. It can be reached by traversing several barangays for a total of 6 to 9 hours, via horse or foot trail, depending on the season, or by using the local public transport called *habal-habal*⁵ during the dry season. Accessibility is greatly hampered during the rainy season when main rivers of Luan and Lalon become impassable.

⁵ Single motorcycles and World War II surplus vehicles.



“Habal-habal” is one of the main transportation from the nearest road to town center.



Horses are the main transportation within the community to the nearest road and other neighbouring communities aside from hiking.

There are 51 households in Sitio Datal Nay including its sub-sitio Dlumay. Each is an extended household with at least 2 families living together under one roof, where the average family members are 6.

The main dialect spoken is Blaan, with an educated few able to speak the regional Cebuano dialect.

The indigenous community suffers very low literacy rate (approximately 2%), like other indigenous communities in the remote villages of the province. This is attributed mainly to the lack of basic educational services, and the inaccessibility to the nearest primary or secondary schools. The low income of households cannot support the needs of children to go to school.

Certain traditional spiritual rites of the indigenous community still remain and are specially practiced by the older people, even with the incursion of a mix of religious influences from the outside.

Blaan agriculture. Farming is the main source of income in the Blaan community. The farmers practice sedentary or settled form of traditional agriculture on slopes and plains, growing rice, corn, sugarcane, banana, abaca, papaya and root crops. The culture-fallow-shifting system of

farming or *kaingin* is still practiced on hillsides. Recently, organic paddy rice farming on the plains had been introduced to increase production.

Farm production is done through cooperative labour or *kasbakas* which is generally rotated for all individual farms of community members.

Crop production among the Blaans of Datal Nay is mainly for food and household subsistence (they eat what is grown on their farms) and partly for cash. Rice harvests vary with farm size, the number of varieties planted and crop losses to pest infestation. Yields are used for household consumption and as seed stock for the next cropping season. The community experiences 3 to 4 lean months each year (when rice and corn of previous harvest is consumed prior to the next). Root crops, such as cassava and sweet potato are mainly planted to tide the households over during the lean months⁶.

The study reveals that farmers also engage in other economic endeavours for cash which provide an average monthly household income of Php300.00 (about US\$6.00). The meagre income from selling farm produce is used for basic necessities mainly to buy salt and rice. Chicken and pig are raised mainly for food and cash.

Land ownership is through the recognition of ancestral domain and ownership passed on through generations of each family. Each farm worked on by a household ranges from 3 to 5 hectares, although not all of the land is fully utilised due to lack of implements.

⁶ *The issue of lean months to the Blaans has been debated since root crops have been the staple in the uplands until now, especially in the hinterlands where upland rice is harvested only once and the harvest is not enough to feed the family. But in Datal Nay and its neighbouring communities, this has been validated. In times when the family has no more staple food, some of them buy from the neighbouring communities or the nearest trading center.*

Indigenous Knowledge System (IKS) of the Blaans: The Blaan upland rice agriculture

Traditional farming in Datal Nay grows upland rice as the main staple food, and regards rice as a special crop celebrated through rituals in each growing stage. These rituals that are less practiced today (or practiced with some modifications or less elaboration), signify the sacred place of the rice crop among Blaans. The poverty conditions that prevail in many Blaan communities today deter them from carrying out the elaborate rituals but largely retain the community or *kasbakas* (collective labour) spirit.

With vestiges of the traditional farming system still in practice, traditional varieties can still be found in the Datal Nay community. Traditional rice varieties collected in 2006 number 100⁷, with 60 varieties actually being planted. Women farmers retain the ability to identify and characterise the rice varieties through their uses (eaten for hunting forays, ceremonies, etc) and their features (maturity, sticky, aromatic, tall, eating quality, and others).

Rice is still mostly planted on slopes through shifting cultivation, and the earliest Blaan practice of shifting agriculture made them move about several times from one clearing to another, often establishing a new settlement each time within their well-defined territories. In the past, transfer of settlement followed a cycle according to their traditional system of land use and in consonance with their agricultural calendar.

At present, a piece of land planted with rice is abandoned and left to fallow for a period of a single cropping season, or one year. The Blaan farmers would then look for another clearing with which they would begin another farming cycle. But often, they would return to their previous clearings and settlements, completing each agricultural cycle.

~~~~~  
<sup>7</sup> Collected for the community seedbank.

## Traditional practices and the planting cycles

Traditional upland rice as a common cultural heritage is deeply connected in the belief systems and practices of the Blaan tribe in Southern Mindanao. Practices and cultural beliefs are distinct in each stage of the planting cycle.

*Traditional cropping (lunar) calendar.* In the Blaan practice, weather and lunar observations are important in the cropping practice. The right time for *alnigo* or land preparation is traditionally determined by the position of the stars and the change of the season. To the Blaan elders, *amlah* (planting) is done seven days after a full or new moon. Also, a starry night used to be one indication of a bountiful harvest.

*Rituals as part of traditional farming system.* Rituals in various stages of production involve the entire community under the leadership of the *fulong*.

Traditional rites known as *maba* commonly led by the men, accompany the land clearing activity to help define a favourable swidden site. Firstly, a local vine called *ablakan*<sup>8</sup> is procured from the forest; cut into several pieces (i.e, using the farmer's palm-width or *ungkol* as a unit measure) and randomly spread on the ground to make several ladder patterns on the target site. Patterns called *safang*, *kakem*, *at-do* and *aslikan* spell good omen and favourable harvest to the farmer. Otherwise, a *ka-lot* pattern would mean a bad omen and the farmer would have to relocate to another site, repeat the *maba* process until a favourable result is achieved.

The *maba* is fast diminishing with the vanishing of the *ablakan* vine from the depleting forest. Another reason is the increasing practice of settled

---

<sup>8</sup> *Ablakan* is an indigenous vine found in virgin forests in South Cotabato, Sarangani and Davao Del Sur, and is found to grow on very old trees. Presence of *Ablakan* in some ways tells the Blaans that part of the forest has not yet been opened for kaingin.



A *fulong* doing the *maba* using *ablakan* vine being cut into several pieces.



*Ablakan* vine is used in *maba*.



The almogan bird is used as a purveyor of omen.

agriculture in more permanent farms; where there is no further need to locate favourable fields to till.

*Damsu for land preparation and planting.* *Damsu* (festival or ritual for thanksgiving) is traditionally held before preparing a selected area for planting and is led by a *fulong* or male elder. The *fulong* recites a soulful incantation in front of a locally prepared altar in the middle of the field. Cooked rice and a hatched knife are offered to the gods and ancestors to drive evil spirits away and to seek blessing for good harvest.

In this ritual, 4 sticks are stuck to the ground forming a stand or altar called *botni*. This is placed in the middle of the farm so that the spirits can have equal access or vantage points to the offering (*halad*). This installation serves as the stand for the baskets carrying the seeds for planting, packed glutinous rice and native adornments (traditional necklaces, ceremonial gongs, hatched bolo and tinkling bracelets and anklets). This ritual manifests the respect held by the Blaans to the spirits believed to bestow the natural resources especially their seed resources.

After the *flalok* or prayer song is recited, the landowner digs around the *botni* using a wooden pole, whereupon the wife or woman first plants the glutinous rice or *mlikat lagfisan* which is the most important variety to the Blaans.

*Planting the glutinous rice seed is the first practice that signifies the role of the Blaen woman in ensuring good seed variety for cultivation.*

*Everybody plants ordinary rice varieties soon after, through kasbakas or cooperative work -- one variety at a time. By tradition, a minimum of three varieties of ordinary rice are chosen by the women for each planting time. Planting more than one variety is made to ensure diversity and to control pests, and to ensure that most saved seeds are planted.*

In this rustic scene of traditional cooperation, collective planting is accompanied by melodious chanting. The husband carries a stick to dig holes in the soil. The wife follows the husband and plants the seeds. Other women will fall in line behind the wife to plant in the other holes. The last woman in the line will cover the seeds with soil.

Seeds are taken from their *fol* or seed storage, while others are exchanged from neighbours and friends. New seeds are introduced through marriage or from visits to and from other communities.

Cooked *abnato libot* (glutinous rice cakes packed in banana leaves) are then distributed to all participants during the planting. This is a simple collective snack for everyone prepared by the family of the landowner. On a separate cauldron, aromatic rice is cooked for breakfast and lunch. (Today, only one big meal for the day is shared as a means to cope during hard times)

From planting until harvest, women regularly tend, clean and weed the rice fields. Men attend to cash crops while waiting for the rice to grow under the care of the women.

*Tuka Fale* or the harvest<sup>9</sup> ritual is performed normally between August and September, and is done collectively by a gathering of all *fulong* and

<sup>9</sup> Harvest time is referred to as *abulan tbeng*, which occurs three-times annually, two for corn and one for upland rice.

other members of the community – manifesting the strong tradition of community solidarity. An auspicious night is chosen for this occasion, normally starting at 7 in the evening, before any harvest activity can take place in the community.

The ritual usually takes place in a *sabak* (spirit house). The *fulongs* recite prayers called *flalok* in front of a prepared altar where offerings for the *halad astutol*<sup>10</sup> are set. This serves as a venue for sharing experiences of the *fulongs* and the whole community. They perform *flaloks*, which are odes to the spirits recited to seek bountiful harvests that often last the entire evening.

Through the ritual of *astutol* that is still practiced today, the young people learn of their ancestral heritage and are able to partake by sharing their views on current problems they face, through dance and songs. The wives and mothers prepare the food and listen on the side with their children. During the night, an elder woman performs the *mélén*, a long chant which tells the stories about their lives on the farm, their cultural heritage and the changing times.

After 2 to 3 hours of continuous praying, food on the altar is shared (comprising of freshly cooked rice, boiled chicken egg and roasted native chicken) for everyone to partake. Sometimes, a set of betel nut ingredients (lime, betel nut, dried tobacco, *buyo* or aromatic leaf) and *kuyo* wine are added to augment the offering. The left-over food is brought to the harvest field served exclusively to the *adwata*<sup>11</sup>.

Everyone is enjoined to a night of continuous group singing, instrument playing and traditional sharing. Early the next day, collective harvesting of rice begins.

<sup>10</sup> *Astutol* means dialogue.

<sup>11</sup> *Adwata* is deity in *Blaan*.

The *tuka fale* continues to be practiced until today.<sup>12</sup> From the interviews and stories, the once intricate celebration is now simplified. There are no more traditional costumes (said to have been already sold to antique collectors), jewelries, and musical instruments.

## Indigenous harvesting practices (kamto) and women's role in seed selection

Towards the end of July to September (5 months after planting), rice is ripe for *kamto* or harvesting. Harvesting is a community undertaking where women play a pivotal role in rice seed selection, a role that is kept until today.

The wives or the women are the first to enter the field to harvest, before the rest of the family and the rest of the community. As designated seed selector, the women move ahead of the harvesting party, selecting at random the upper panicles of the rice plant exhibiting the following characteristics: full bodied or fully-matured and sturdier grains.

This is so since the women's responsibility in the farming system is primarily the conservation and selection of seeds. The husbands in the meantime, find food for the offering or thanksgiving feasts.

Harvesting is done with bare hands. The panicles collected are then put in the *tiral* and *bakog* (storage containers). For the rest of the rice to be harvested, they use a locally manufactured knife called *langgaman* to harvest the panicles. Rice bundles called *lagom* are then formed, then brought and piled together on a designated haystack or *sigang*.

Within 5 to 7 days, the rice bundles are taken from the *sigang* and threshed manually by foot, mostly by women. After threshing, the grains are dried using a bamboo mat called *amakan*, *atnaap* (winnowed) and later stored inside the *fol* or seedbank.

<sup>12</sup> A *tuka fale* was observed and documented during the research period.

Harvested seeds will be stored and planted the next planting season since the seeds stored the last season will be planted following *alnigo* (land preparation); this is so since seeds maintain their highest quality for a whole year. Women manage the stored seeds and see to it that all seeds are viable. The sets of rice varieties planted in the farm are different from the set of varieties stored. Each family thus can have in their keeping a minimum of ten varieties.

*Seed storage and conservation.* Selected seeds for planting are kept in their respective storage containers to secure stocks for the next planting season, while the grains for food consumption are placed on the floor or around the open space inside the *fol*.

Some indigenous rice seed storage practices include: *aknasong* (storing rice seeds with *anahaw* leaves); *lihub* (storage in a container made from sturdy bark of *dlong* tree which also serves as an insect repellent); *bakog* (storage in a native basket-container for palay storage made of indigenous bamboo called *naf*); *tiral* (storage in long bamboo poles); and *saboy* (storage in bottles especially for vegetable seeds).

## Women in food preparation

Women do the daily pounding and winnowing of rice for the daily meals, 3 times a day except during lean months when they have to harvest root crops more often for food. It is the women and mothers who make certain that there is food to prepare and served for meals.



Winnowing is a daily task for women.

## Changing contexts of the traditional Blaans agriculture

Three factors are seen to have changed the lives of the Blaans: the loss and reduction of land to till, the adoption of settled agriculture, and the inroads of external influences that tend to weaken regard for tradition, especially by the young and educated.

The traditional tribal norms on land ownership have changed over time. The right to till the land in early times was governed by customary laws and spiritual practices such as the *maba*. Today, their ancestral land have already been delineated or covered by political declarations, which have already limited the area for the Blaans and other indigenous peoples to grow food. There is little protection for them against the impinging policies by government on public land (such as declaration on watershed and forest reserve) and on corporate use of forest resources inhabited by indigenous peoples. Mining operations presently threaten to displace the Blaans and push them farther into the hinter areas.

Settled agriculture has now been adopted alongside shifting cultivation, which had been a result of traditional land use delineation to allocate for the increasing population of Blaans that have been pushed to the uplands by economic and governmental pressures. With the adoption of settled farming, there have been changes observed from the traditional practices of their ancestors. Rituals are still practiced but without the elaboration of their cultural past.

Settled farming had led the Blaans to observe today a definite period for planting the staple crops (rice and corn), which they call *abulan samkyab* which usually starts by mid-March to April 30. In Sitio Datal Nay, favourable months for planting is observed for three consecutive months of March (*blatik samkyab*), April (*blatik salel*), and May (*blatik sabwol tikong*). This

period is deemed more favourable for planting traditional varieties of rice, which normally matures after 5 months. Any delay would mean a less bountiful harvest.

Some rituals or portions of the rituals and practices are now forgotten. Some remain in the memories of the elders (men and women), owing to the preservation of their language and practice of oral tradition. Those forgotten can no longer be recreated with the very limited or total absence of written record.

The traditional farming system of the Blaans had been eroded by influences of cash orientation and of formal education that tend to take the Blaans away from their farms and tradition; but more inextricably, due to the causes that led to dire economic conditions that resorted to outmigration, and to farmers abandoning their traditional farms and culture. The loss of farm lands, the degradation of the environment and depletion of forest resources brought about the resource scarcity that bear down on productivity for the Blaan farming communities.

Traditional agriculture carries the knowledge of indigenous farmers and is the basis for people-based development. It is traditional agriculture that has aided their survival in the face of periodic lean months and poverty worsened by prolonged drought periods in the past. Modern agriculture relatively thriving in the surrounding municipalities weakly penetrated the area ostensibly due to its inaccessibility to traders and seed companies.

### **Women farmers remain as seed keepers and holders of indigenous knowledge**

The research shows that among the major activities in traditional upland rice farming, the tasks of seed conservation and management

have remained in the hands of women farmers. Despite the changes in agricultural conditions and contexts, the traditional knowledge on seeds remained to be the women's domain. Both tasks and knowledge have remained, said to be primarily due to the survival of traditional rice varieties and other seeds within the remaining elements of traditional farming in the Blaan community. Women's roles have remained unchanged in seed selection and management despite certain changes in gender roles, as shown below.

**Table 1.** Roles and responsibilities of each family member in upland rice farming

| Farm activities                                                   | Elders | Men | Women       | Children |   |
|-------------------------------------------------------------------|--------|-----|-------------|----------|---|
|                                                                   |        |     |             | ♀        | ♂ |
| Maba                                                              | ☺      | ☹   | ☹           |          |   |
| Alnigo                                                            | ☹      | ☺   | ☹           | ☹        | ☹ |
| Damsu for planting                                                | ☹      | ☹   | ☹           | ☹        | ☹ |
| Amlah – prepare the seeds<br>- plant the seeds<br>- dig the holes |        |     | ☹<br>☹<br>☹ | ☹        | ☹ |
| Weeding and tending                                               |        |     | ☹           | ☹        |   |
| Pest management                                                   | ☹      | ☹   | ☹           | ☹        | ☹ |
| Damsu for harvest                                                 | ☹      | ☹   | ☹           | ☹        | ☹ |
| Kamto – for seeds<br>- grains                                     |        |     | ☹<br>☹      | ☹        |   |
| Storage                                                           |        |     | ☹           |          |   |

☹ - plays lead role

The gender disaggregated information on farming tasks among the Blaans show that in today's farming cycle and pattern, women farmers are the ones chiefly responsible for handling the seeds from selection and maintenance to storage. Furthermore, the conservation of upland rice diversity and other related crops in Blaan agriculture remained very much gender specific, i.e., tasks being entirely in the hands of women.

*Women and conservation.* The seed conservation task of women in the Blaan community is tied not only to seed keeping, but to the entire process of seed selection, maintenance and preservation that ensure: the quality of food production (good yield and resistivity to pest and other problems); availability of food (with eating quality) on the table; availability of traditional plant-based medicine for the family, and the practice of rituals and festivities that preserve the community's life fabric as indigenous peoples. The women are regarded to have a conserving nature and knowledge that qualify them to undertake the meticulous and nurturing tasks of genetic conservation. The community recognises this by placing the women in the lead of planting and harvest rituals.

## **Indigenous knowledge systems and ecological agriculture**

In 2004, the Center for Lumad Advancement and Services (CLANS) and the community together with SIBAT, which has given assistance of appropriate technology in agriculture, had started its work in the Blaan community. Ecological agriculture had worked well, strengthened and further developed their local farming practices.

The approach basically regarded ecological agriculture as the underlying principle and technology to develop the potentials of food production based on indigenous knowledge systems. This system, whose strength is traditional farming in the Blaan context, is the basis for developing a community-based food production plan that enhances environmental quality and natural resource base upon which agricultural economy depends. Both ecological agriculture and indigenous knowledge are seen to have the following features: compatibility with natural processes, diversity and integration of elements of the farming system, and the desire for self-reliance through cooperative or community-based efforts.

Indigenous practices are looked at not as random processes but as products of intellectual investigations of people in close touch with nature and who have had the lifelong opportunity to validate their practices and observations. Some of the indigenous farming practices compiled and documented by this research are:

- a) Observing the lunar calendar to predict planting time and the pattern of insect population;
- b) Synchronised planting in rigorous upland conditions of Blaan agriculture that ensures efficient pest management and soil rejuvenation techniques, and tapping on the strength of organised cooperative labour exchange;
- c) Crop rotation (*sanbaul fale*) and intercropping (*sanbalok fale*) as varietal, spatial and temporal variation in planting rice and other crops and a form of pest management through diversification;
- d) Good land preparation for weed management;
- e) Practice of fallow period to attain soil fertility;
- f) Seed selection and maintenance, which is the responsibility of the Blaan women; and
- g) Planting of 3 or more varieties per cropping to ensure diversity.

Indigenous knowledge is part of the lives of the Lumad and rural poor; their livelihood depends almost entirely on specific skills and knowledge where outside ideas can be applied in a sensitive manner relating to existing conditions (Resullo, 2005).

## **Changes in the traditional structures of seed conservation**

Today, as a result of the adaptive integration of ecological agriculture, most storage is done in individual houses of the Blaans. The indigenous *fol* structures have been modified from its seed bank role, structure and valued requirement of swidden farming located and protected in a secluded site in the farm. The *fol* rather, had evolved today into a diverse and more

functional component of the farm. Called *lawig*, it is no longer secluded from view, but is a diversified garden that provides food (vegetables, livestock and poultry), to cope with the depleting nutritional needs of the family in the newer context of settled agriculture, of changing environment and state of resources. The surroundings are now planted with vegetables, fruits and root crops, and some even have poultry and hogs. In some areas, families move in the *lawig* during the planting and harvest season to closely monitor their farm. Women are mainly responsible for the vegetable garden and livestock and poultry management. This has been further improved through innovations of ecological agriculture.

**Community seed banks:  
An innovation in Blaen traditional agriculture**

Loss of biodiversity in the country has reached critical levels leading to the disappearance of many culture and knowledge systems in traditional farming. In the surviving conditions of the Blaens, the loss of rice biodiversity is gleaned through certain indications, such as the pairing of every ordinary variety with a glutinous partner.

An approach in ecological agriculture to ensure farmers' access and control over their seeds and land resources is through Community Seed Banks (CSBs). These are functional farms both collectively or individually owned and managed by the community where seeds are retrieved, evaluated, maintained, used and protected by farmers from loss or extinction. This is an innovation on the family-based seed banking in the past that used the *fol* as the indigenous storage.

Blaen women contribute to the modifications or innovations in the natural selection process through the way they select and care for the crops. They save the seeds of plants that are most vigorous, yield highest, taste best and show least damage from pests and diseases. Over time, plant population carrying genes of superior quality and potential for success increases. Thus, each generation of seeds has a genetic make-up that is a product of continuous dynamic process of interaction between the plant, farmer and environment. This genetic diversity shapes the gene pool of local seeds and adapts to farmers' practices and preferences, and to natural conditions.

The current adoption of the rice paddy system to increase rice productivity (complementing hillside upland production), is an activity that links indigenous knowledge system in rice with sustainable agriculture innovation.

*Kaingin* or shifting cultivation has evolved through time, and lost the many conservationist elements through the effects of changes that transpired in Blaan society, primarily the loss of land and dire economic pressures. This practice had worsened and in effect, there have been loss of productive soil and reduction of food crops that paved the loss of food resources for the Blaan families.

### **Continuing challenge: Transforming gender relations to empower Blaan women farmers**

In the research, the patriarchal structure rooted in the Blaan society is observed to tend to constrain the development of indigenous knowledge systems and ecological agriculture initiatives by reinforcing attitudes that underplay the value of women's knowledge, and limits if not at all excludes women from participation.



Women's primary role is of being a housewife, mother and farmer.

The research for instance, has shown that initially, 97% of participants in sustainable agriculture (SA) trainings given have been men, because of the constraints of tradition. The women, who have been most knowledgeable in seed conservation – identification, collection, selection, maintenance and use – were made to look after the crops in the farms and remained in the homes attending to domestic chores and care of children.

There is a need to address these gender relations. This is a continuing challenge and task, started by a revelation on the valuable roles played by Blaan women farmers, humbly contributed by this research work.

## **Conclusions**

1. Women hold the key in conserving genetic resources and traditional knowledge in Blaan agriculture. The research has provided proof to this, from a study of the elaborate and well defined tasks for Blaan men and women of Datal Nay. Outside land preparation -- the tasks of sowing, weeding, tending the fields, harvesting, selecting and storing seeds – all require the knowledge and skills of women.
2. Blaan women's seed system is holistic, integrated and self-reliant. A carefully undertaken analysis of these activities can reveal where and how the system can be improved along the aims of conservation and protection.
3. The experience in Datal Nay validates the viability of ecological agriculture in enhancing the conserving and productive elements of traditional farming. The experience further provides insight into the viability of establishing ecological agriculture programs from the existing local or indigenous knowledge system of farmers. The success of the process also presents the importance and need to thoroughly

assess innovations before introducing them into the community, and to consciously use these innovations to further enhance, and not jeopardise or weaken, the indigenous practices.

4. Binaan woman's role in the community however is limited by her primary role as housewife, mother and farmer. The husband usually assumes leadership in the tribe or community. The transformation of the patriarchal tradition into a just and complementing relationship as partners in the change process within the household and community, is possible and is necessary, coming from the Datal Nay experience.
5. Documentation of indigenous knowledge systems (IKS) is urgent since there is the rapid erosion of tribal communities attributed to the so-called 'modernisation'. Traditional practices along with genetic resources, like distinct crop varieties and their associated indigenous methods of culture, may be lost forever. Innate to women is their role of passing on and inculcating upon their daughters, the skills, knowledge and practices, through actual, experiential and verbal processes.

THAILAND

# Phu Tai Women of the Northeast Region of Thailand

**WOMEN'S KNOWLEDGE IN POST-HARVEST, PROCESSING AND MARKETING**

***Montawadee Krutmechai and Varuntorn Kaewtankam***

*Foundation of Reclaiming Rural Agriculture and Food Sovereignty Action (RRAFA)*

## **Introduction**

Women continue to play a key role in developing and managing the food security of the household and community, ensuring sufficient food for household consumption, as well as taking care of the health of their family members. The significant role of women in the farming community includes, for example, gathering food from the wild, raising farm animals, fishing, working as wage earners or directly cultivating farm lands, producing compost for soil improvement, caring and selecting of rice and vegetable seeds, while at the same time, maintaining the ecological balance in the fields and forests.

In the capitalist globalisation system, such mode of production and way of life has been changed from the past where there was a high degree of inter-dependence and reciprocity with natural resources to commercial cropping system. This change has also transformed the role of women making them work harder since they have to spend more time and labour in the modern production system to feed their families. When

the modern system of resource ownership comes into play, the role of women is played down. For example, the role in selecting and keeping seeds, which is an indigenous and traditional wisdom inherited from their ancestors, is replaced by seeds from agri-business corporations. This includes the role in selecting and dividing produce, food processing and preservation, ensuring food security for household and communities, sale of yield, and so on. The 'modern' system depends too much on external factors, making millions of farmers in the country live under risks in the production process and fall into the vicious cycle of indebtedness and insecurity in production and consumption.

Government policies and projects on natural resource use and management open up more opportunities for the business sector to invest in agricultural lands. With these, women have lost their control in managing such resources. The roles of participation in decision-making and access to economic and political resources have weakened. In the public space, the role, capacity and participation in decision-making of women in sustainable management of natural resources are ignored. Although women get more opportunities to be the community representatives in public consultations, in reality, women become mere tokens in the decision-making and development process. At the same time, women continue to take on household tasks as before, but the value of their household work is decreasing, since this kind of work is seen as having no economic value in the capitalist system.

The Foundation of Reclaiming Rural Agriculture and Food Sovereignty Action (RRAFA) has conducted a study on the roles of women in the development of alternative agriculture in Thailand, with the purpose of documenting the knowledge, traditions, roles and responsibilities of the Phu Tai women in the northeast region.

From weaving to harvesting firewood, from soil preparation to seed selection, from food preservation to marketing, women have played key roles, crucial in maintaining the traditional knowledge, as well as sustaining the lives and livelihoods of the community.

Documenting the various roles and traditions of the Phu Tai women was a process of empowerment, not only for the women, but also hand in hand with the men in the community. The process of documentation was an opportunity to gain better understanding and awareness of women's ideas and perceptions on community life, as well as recognising women's contributions in agriculture, particularly in the post-harvest, processing and marketing stages.

## **Weaving - A traditional role played by northeast Thai women**

Weaving is a woman's task done after the rice harvest in the northeast region of Thailand. Nearly every house prepares cotton and silk for weaving. Women dry and pin cotton; and make thread usually before rice transplanting. Traditional cotton varieties (called *kok yai*) have been collected through generations. The seeds (which can be kept for 3 years) are sown and the cotton plant grows without the need of fertilisers or tending and pruned yearly until the plant dies.

Weaving is a unique traditional knowledge of the Phu Tai ethnic women practiced up to the present, after the harvest season. The woven cloth remains a valuable asset of the Phu Tai economy as well as an important part of the ethnic society's traditional rituals practiced in their lifetime.

*Traditional birth ceremony:* The woven cloth is traditionally a part of a mother's birth giving. The cloth is placed on a plate and covers

the newborn child after the village midwife cuts the umbilical cord. The midwife ties a thread on the baby's wrists as the mother is kept warm with fire, after which, a "spiritual ceremony" is held that is said to bring good spirits to mother and child. The family pays gratitude to the midwife with money or traditional skirt. Since the introduction of modern health system, the ceremonial tasks of the traditional midwife (usually a woman elderly) have not been usually practiced.

*Traditional wedding ceremony:* Weaving skills constitute one basis of choosing a bride in Phu Tai. A female Phu Tai becomes eligible for marriage if she can weave a "Khaomar" (a cloth for varied uses), a naturally dyed black shirt popularly used for work and daily routine, and a silk skirt. In addition to these traditional cloths, women nowadays are able to make mattress, pillows and blankets, indicating that they are ready to take more responsibilities as members of the community.

*Annual festivals (Prawait, Kratin, Songkran or New Year):* Women offer cotton thread, white cloth, blankets or pillows to offer to the monks during annual festivals. The Buddhism festival of Naka is a religious festival dedicated to mothers who prepare *Buat Nak* (monk clothes, Khaomar cloth and silk sarong or skirt) for their sons who are being groomed to be monks.

*Traditional funeral ceremony:* People use *pha-khit* cloth (Phu Tai's most valued cloth) for funerals. The *pha-khit* is known for its complicated and beautiful patterns and thus is used only for the most important ceremonies, and is a pride for the woman weaver. The *pha-khit* is used to cover the coffin. Meanwhile, white cloth is used to cover the face of the dead in the Phu Tai tradition. It

is also used to carry the coffin by the monks and a line of family members and cousins, believed to bring the soul of dead people to heaven. Three days after the funeral, another ceremony for the dead (called *chaekkhao*) is held with offerings of pillows, holy cotton thread and rice. A cotton flag is also offered believed to bring the soul to heaven.

Women do not only weave cotton and silk to make *Khaomar* shirts, blankets, curtains and scarves for the family and traditional use, but also for cash income. The household derives its main income from weaving especially during off-farming season.

## **Plant extraction and usage**

*Kram* or indigo is a natural color that people have known and used for a long time for dyeing cloth. A woman who can prepare a solution made from *kram*, ash and fermented water (called *gor mor yom kram* that is used to wash sticky rice from clay pot) would be qualified to use it to dye cloth, indicating that she can prepare clothing for family members which is important for the communities' daily needs and tradition. A household that could dye good cloth with good deep indigo colour (called *si kak* in Phu Tai) gets recognised for the skill.

The first *kram* solution is prepared during the growing stages of rice, and the rest is prepared after the harvest, when the women would have more time to attend to the tedious steps of the preparation to get the deeper indigo colour. Weather changes affect the quality of the solution, i.e. the desired colour is not produced. Experience has established that *kram* is best prepared on Tuesdays or Sundays, to get the good colour. Women alone can determine the sour or sweet additive to the solution, an indigenous knowledge handed down through generations.

At present, however, more people have turned to chemical dyes compared to the tedious preparation required for *kram*.

Phu Tai people also use *kram* solution or *nam boe* mixture to prepare herbal medicines; *kram* has a lime component that helps heal wounds and alkaline that heals muscle pain. *Kram* helps heal bruises by placing the wounded area on a wooden litter over the dyed cloth with boiling water underneath. It helps heal wounds, rashes and inflammation by covering the affected skin with *kram* cloth. It is also used to cover the body of the mother after child delivery and put by the fireside for faster healing. *Nam boe* application also helps the relief of mumps and healing of castration in bulls.

## **WOMEN'S ROLES IN FOOD PRODUCTION AFTER RICE HARVEST**

### **Vegetable growing and mushroom culture**

In Phu Tai agriculture, vegetable growing is a woman's task. Women collect and prepare vegetable seeds for cultivation, and take care of seed sowing and plot management up to harvest of the crops. They know the kinds of vegetables to be grown in the dry season after the rice harvest, such as *pak sian*, gourd, cabbage, etc.

Before growing, she sorts out the good seeds that have high rate of germination. She covers the plot with dust to ensure successful sowing of seeds.

Vegetable growing starts with soil preparation. It is left under the sun for 7 days to kill all germs and weeds, and to ensure porous soil that also offers good drainage. Seeds are then sown followed by manure and covered by straw to maintain its humidity. Small vegetable seeds (such as cabbage) are

grown into seedlings before transplanting, while larger ones (such as garlic) are directly transplanted. Some vegetable seeds that are eaten wholly (such as *pak sian* and celery) are directly sown without need for transplanting. The seed and seedling plots are covered with rice straw to maintain the humidity of the soil. Through experience, planting vegetable seeds are better tasting when applied with a mix of pig droppings and cassava.

A women's group does mushroom culture to produce food for their village and neighbouring communities, and to earn extra income for women who do not have weaving skills.

### **Collecting food from natural sources: fish, shrimp, shell, frog, and ant egg**

Food is usually scarce during the dry season after harvest. With indigenous wisdom inherited from their ancestors, women collect food from natural sources to help supplement food for the household.

*Crab and shell gathering from rice fields:* Women learn the traditional way of crab and shell gathering from their mothers, a tedious but careful way of collecting food that women consider as tasty and nutritious for the family. This relies on the careful observation of the crabs that normally hibernate underground in rice fields or its ridges during the dry season. They use a stick implement to pull the crab from the deep hole after digging. Similarly, women dig the soil using shovels to get the shells out from the field ridges.

*Hunting for shrimp and fish in ponds and streams:* Women use a traditional fishing technique (using spoon and dip nets) learned

from their ancestors. Women use this kind of fishing gear (laid alternately in a row with rice and fish baits) during the dry season (around October to March) when water level is low and fish is more easily caught.

*Gathering ant eggs from February to May:* Women gather ant eggs mostly from trees, such as mango trees. Ant eggs are a local and expensive delicacy in Phu Tai. Women use a long bamboo stick to pluck the nest and catch the eggs into a bucket attached to the stick. They apply powder on their bodies to prevent ant bites.

*Snack-making:* Snacks are usually made during free time after harvest. The traditional snacks that remain popular include *Khanom Khee Ma*, *Khao Pong* and *Khanom Jeen*. Some households make snacks from rice, such as steamed sticky rice (*Khao Tom*) and mung beans in banana leaf (*Khanom Tian*). Phu Tai people also produce coloured (red and black) rice, which was associated with bad luck during a certain period of Phu Tai history.

## **Women as keepers of plant and animal genetic resources**

Women are the collectors and keepers of rice (the staple food in Phu Tai) and vegetable seeds and are in-charge of exchanging and sharing these within their community. They select the best seeds from the rice field before harvesting, and the seeds are kept for the next planting season.

Women's knowledge is rich in collecting and keeping plant and animal genetic resources. This knowledge is passed on from one generation to the other.

*Rice:* Immediately before harvest, women select seeds from good yielding plots, from rich full ears with abundant seeds and less lean seeds. Then, they sort these out with mixed grains to observe varietal differences. Women are able to identify the varieties based on the shape and colour of the grain, sorting out ears with mixed grain and selecting grains with even-coloured husk. The grains are then dried and threshed using a bamboo pan to remove lean ones. Then, the women keep the good grains, put them in a sack and store these in rice barns or granary to protect from rodent infestation.

*Vegetables:* Women select good pods and dry them to prevent fungi growth. The method of storing vegetable seeds depends on the varieties. Vegetables that keep seeds with the whole fruit (such as corn, gourd and bottle gourd) are hung to dry in a good ventilated place, or over a fireplace to better protect these from insect damage. Ripened vegetables that keep seeds (such as celery, cabbage, beans, pumpkin, eggplant, etc.) are selected and their seeds taken off to dry and wrapped in cloth. Dried seeds are kept in an old rice container because this often has good ventilation, and are mixed with cotton seeds to protect these from insects and infestation.

*Animals:* Chicken and pigs are reared by women who also choose the animal genetic resources for breeding. A chicken with a good round body and short tail is of a good breed that will give plenty of healthy chicks. Good pigs have a long body, short bottom and straight back. *Moo Kee* (a pig variety) is found to be a variety easy to raise which does not have piglets and can look for food by itself (such as vegetables, rice bran and earthworm). It is the man who selects and has better knowledge in selecting the cow breed while the woman helps to take care of the cow.

### Indigenous Wisdom in Seed Collecting

**First Method**  
Seeds collected with peel-like corn will be hung to dry in windy place or above fireplace to prevent from insects and infestation.



**Third Method**  
Seeds with high humidity are dried on a bamboo pan and hung at a place with good ventilation or above a fireplace.



**Second Method**  
Take dried seeds out from pods and wrap in cloth, put it in rice container (*Kratib*) or jar and cover it with cotton seeds to prevent it from insects and infestation.

## Women's role in soil preparation

Women play an important role in preparing the soil for cultivation together with the men farmers.

Rituals and ceremonies are held in the preparation phase to signify good harvest. The rice field is prepared in February, and traditionally celebrated by women spreading dust (droppings of pigs and buffaloes) over the rice field, a traditional practice to augur a good yield from rice cultivation. The field is sealed off during the ceremony to prevent water from leaking out,

while women recite, '*Let the rice grow well, be happy, celebrating the third day of waxing Moon, spreading dust in rice field*'. This celebration is done annually for generations, with the belief that failure to hold this will not produce a good crop yield.

Before the ritual, an offering of food prepared by the women is made to thank the rice spirit. With the recital of a chant, a prayer is said to invite the rice spirit, into the rice barn where the food offering is laid. The rice is afterwards taken out, threshed and eaten together.

On the third day of the waxing moon of the third lunar month, the elder farmers begin to read the season. The rains would fall good for the fields if it rains on this month and otherwise if it is cloudy. If the climate is cold in the fifth lunar month, then it is predicted to be dry; and otherwise if the climate is warm.

Farmers grow cowpea (*vigna unguiculata*), jack bean (*canavalia ensiformis*) and sesbania (a flowering plant in the pea family, *fabaceae*) to cover the ploughed soil for enrichment. Then, they sow beans and sunhemp as green fertilisers. Straw is collected and piled (called *sud fang*) as feed for buffalos. The men make the core and women put straw around it; this is kept as feed for buffalo in the rainy season during cultivation as well as in the dry season.

## Herb preparation

Women grow herbal plants like Plai (*zingiberaceae*), lemon grass and turmeric, and they are the ones who prepare and use these herbs for their children's needs. Mothers apply turmeric on the bellies of their children for relief from flatulence. Turmeric (used for aroma therapy) is also placed by the older women beside the mother and the newborn child by the warming fire. *Warn Fai* (fire herb) is used to cure pain on hands and feet.

*Warn Pid Pit* (anti-poison herb) is given to mothers after delivery as a cure from poisonous food. Women in Phu Tai recommend that households grow at least 5 herbal varieties in their home gardens and eat native rice varieties as medicine. A group in Phu Tai makes medicinal herbal bags to cure bruises and relieve muscle pain, using herbs grown in their backyard, for domestic use and income.

Women also use herbs for traditional beautification. They use wild yam to redden their cheeks, turmeric to make their skin fine, and coconut oil for their body and lips. They use dry Niam flower (*Chloranthus inconspicuus Sw*) to make perfume to mix with water to pour on Buddha's image.

### **Making Herbal Massage Bag**

*Medicinal herbs used to make an herbal massage bag:*

1. 'Pao' leaf to cure inflammation and wound
2. Aromatic lemon grass has good aroma that helps relieve nasal congestion
3. 'Krua Sen En' leaf helps nourish muscle
4. 'Pak Goom' nourishes blood and muscle.
5. 'Warn Kled' leaf relieves bruise and sprain.

*Method:* Wash all the medicinal herbs and then cut into small pieces. If one wants to massage with raw herbs, then fold the herbs with 'Kram' (indigo) dyed cotton, tie and steam and massage the bruised area. If one wants to keep it for long use, dry the cut pieces of medicinal herbs completely and put them in 'Kram' dyed cotton. When it is time for use, steam it and massage on the affected area.

'*Niam*' is a plant with aromatic leaf and flower found in the northeast region of Thailand. In the old days, all households grew this plant for its diverse use, such as making incense stick and repelling insects. It is chewed with betel nut to relieve colon gastric problem. '*Niam Om*' flower is boiled as tea to cure cough. Chinese people use its roots to treat malaria. When boiled in water, '*Niam Hu Sua*' leaf helps cure toothache (by drinking) and rashes (by rubbing on the affected area).

*To make perfume from Niam:* Cut the *Niam* flower and turmeric root, steam and dry them under the sun. Pound the ingredients until fine and keep in bottle. To use, put *Niam powder* in a cloth bag and dip in water. The aroma of *Niam* will come out.



Niam



Dry Nium Flower

## Harvesting firewood

Collecting firewood for cooking is the task of the Phu Tai women. They collect firewood the whole year round, collecting for about 2 to 3 days use even from distant parts of the village.

They collect firewood after farm work at the edge of their rice field or at the neighbouring villages. It is now more difficult for women to gather firewood since the old forest has been cleared for farming. Women know which kind of firewood gives good flame for longer hours, such as the *Mai Jik* and *Mai Rung* which have hard cores and give good flame. Sometimes, they have to buy or grow eucalyptus to make firewood because it gives good flame and can be sold to augment their income.

## WOMEN'S KNOWLEDGE IN FOOD PROCESSING AND PRESERVATION

### Bamboo shoots and *Pak-sian* (Spider Weed)

Bamboo shoot abounds in northeast Thailand and hence is a popular plant for food. The main preserved food of local Northeast people is *Plalar* (salty and fermented fish) bamboo shoot, pickled bamboo shoot and dried fish. The following are some examples of bamboo shoot and *pak sian* (*gynadropsis pentaphylla*) vegetables:

*Pressed bamboo shoots*: Boil bamboo shoots in water, drain and put in a plastic bag, seal and keep for 5 to 6 days before consuming. This can be kept for 4 to 5 months.

*Bamboo shoots in container:* Boil fresh bamboo shoot, remove from heat and drain the water, put in a jar, fill with water, and close firmly to retain the taste of the bamboo shoots. Air seeping into the jar will render a sour taste to the bamboo.

*Salty bamboo:* Slice fresh bamboo shoots, soak with salt or wash them with rice water to make bamboo firm, white but not red in colour. Rub and press with salt then put them in a jar, close firmly or put broken rice on top (rice bran). Use a ladle instead of using hands to take out the salted bamboo, which will make the bamboo shoot taste sour.

*Bamboo thread (normai soy):* Use needles to make bamboo shoots into small threads, then rub and press them with salt, put them in a box and close. This can be kept for many months.

*Pak-sian-dong (pickled leafy vegetables):* Wash *pak sian* vegetable, then rub and press with salt. Pickle the vegetable with salt and rice stock, put in a box and close firmly. Rice stock gives the sweet taste. This can be eaten within 1 to 2 days.

## **Fish preservation**

*Fermented fish (Plalar):* Fishing is done mostly between the months of August and October before the rice harvest. All kinds of fish can be fermented. Clean the fish, remove the intestines, put salt of about 2/3 of the fish weight, and seal the jar. Once it becomes *plalar*, salt juice will cover the fish and the meat turns red, indicating the start of fermentation. Put fried rice grains

(some put paddy instead of husked rice to avoid the unpleasant odour) in the fish jar, to prevent the bitter taste of *plalar*.

*Plalar* can be kept for a long period depending on the quality of salt. *Plalar fermented more than 6 months is considered as safe. It should be kept in a place with air circulation and no sun.*

*Smoked Catfish (Pla Duk Rom Kwan)*: Wash the fish, cut out the head and remove the intestines. Wash the fish again and dry under the sun for a day. Put the dried fish on a wooden grill, and use coconut shell charcoal to give the fish an aromatic smell and nice color. Smoke for 4 hours.

## Traditional sweets from rice

Traditional sweets are mainly made from rice and it has been part of the food culture of the Thai people. The traditional way of making sweets is done by the community, hence it is important in fostering solidarity among its members and relatives. Traditional sweets use local ingredients, such as rice and coconut, hence is sustained for generations.

Different varieties of local rice are suitable for certain sweets, e.g. *Kao Kam* or black rice is suited for making *Kao Tom* (pair of steamed sticky rice), *Kanom Tien* is normally used for sticky rice with cooked mung bean inside.

Traditionally, the villagers consume various kinds of native rice such as *Kao Sanpathong* (white), *Kao Koh Diew* (white), *Kao Kam* (black), *Kao Mali Daeng* (Red), and *Kao Som Malee* (light green and yellow). Nowadays, many of the native rice varieties are no longer consumed and coloured varieties are only used for ceremonies intended to release a person from bad luck with which they are associated.

The following are some traditional recipes of Northeast Thailand.

### ***Kheemar Sweet (Horse Dung sweet)***

#### **Ingredients**

1. *Sanpatong* sticky rice (1.2 kg). Only local variety is used for *Kheemar Sweet*
2. Red rice (300 grams)
3. Coconut (1 pc)
4. Sugar (1.5 kg)
5. Cooked sesame seed (black or white)
6. Vegetable oil or pork oil

#### **Method**

1. Soak *Sanpatong* and Red rice for 3 hours.
2. Take out the rice from the water and pound it by traditional pestle to turn to flour.
3. Mix with water and rub and press to shape. Add sesame seeds.
4. Scratch coconut into small pieces. Fry over low fire until it turns yellow then mix with sugar. Set to cool.
5. Make round shapes and put fried coconut inside the round shape.
6. Fry the shapes in oil. To be eaten while hot.

## Sweet and Crispy Rice (*Kao Keab or Kao Phong*)

### Ingredients

1. *Dokmai* sticky rice (2 kg). This is a local long grain rice variety which is soft and has an aromatic smell. *E-toon* and *Pakhen* rice can also be used.
2. Pure sugar or sugar made from sugarcane (1 kg)
3. Salt (1 spoon)
4. Rice stock
5. Vegetable oil
6. Yolk from 4 cooked eggs

### Method

1. Soak sticky rice overnight then steam.
2. Pound rice with traditional pestle while still hot. Use rice stock soaked with *tod-mah* grass to prevent rice from sticking on the pestle surface. Add a bit of sugar and continue to pound until the rice is no longer sticky.
3. Transfer the pounded rice onto a plate. Mix oil with red egg and shape rice to thin flat rounds. Two flat woods laid out with banana leaves or transparent paper is used to achieve the desired shape and thinness.
4. Place the shaped rice under open air and leave it to dry. Then grill on a fire and store in a plastic bag for consumption.

## ***Khao-Pad Sweet (Cut Sweet rice)***

### **Ingredients**

1. Red rice (1 kg)
2. Red sugar (1 kg)
3. Coconut milk (2 kg)
4. *Teuy* leave juice (Pandan juice) (1 cup)
5. Salt (½ tablespoon)

### **Method**

1. Soak red rice for 2 hours.
2. Take out the rice from the water, then pound with pestle until it turns into fine flour.
3. Mix the red rice with *Teuy* leaf juice and coconut milk, sugar and salt.
4. Put the mixture in a pot and put it over the fire. Stir it with a bamboo stick until cooked and sticky.
5. Let it cool down, then cut it in rectangular shapes before serving.

## ***Khao Tom Mud (means 'Pair')***

Put some salt in the sticky rice and spread on a banana leaf to a size a little bigger than a banana. Then cut a ripe banana lengthwise into 3 pieces and put it on the sticky rice. Cover the banana with another layer of sticky rice. Fold the banana leaf at all ends. Make a pair and put them together with bamboo strip and cook. When cooked, unfold the banana leaf and spread some fresh coconut chip with sugar. (If red or black bean or even groundnut is available, mix it with the sticky rice before folding the banana leaf.)

## Rice preservation

*Khao Hang* (**germinated brown rice** or “**GABA-rice**”). In the old days, *Khao Hang* was prepared because of insufficient rice consumption for domestic use, i.e. rice supply is already consumed before the next rice harvest. While there is no rice shortage at present, some households continue to prepare the nutritious and tasty *Khao Hang*. ‘*Khao Hang*’ has about 6-12% protein content with vitamins such as B1 and B2, niacin, and minerals such as phosphorus, calcium and iron. One gram of cooked ‘*Khao Hang*’ will give 7.60% protein, while regular cooked white rice will give 6.40%. There are two kinds of *Khao Hang*: *Khao Hang Na* and *Khao Hang Lao*.

*Khao Hang Na*’ is done by harvesting yellow rice that is ripe but not dry enough for harvesting in November. Rice can be harvested as ‘*Khao Hang*’ when farmers see that the ear is yellow and red at the end. The grain is taken off, cooked and air-dried. If the farmer wants to keep it for a long time before consuming, the whole grain with the husk will be kept or stored. For eating purposes, the grain is husked and steamed.

‘*Khao Hang Lao*’ is the grain that is kept in the rice barn. The farmer soaks the grain for 24 hours, dries the grain and husks. ‘*Khao Hang Na*’ is tastier than ‘*Khao Hang Lao*’ because it is fresher.

## Coconut processing

**To make coconut oil:** Scratch coconut into small pieces put it on a warm fire until a transparent juice comes out, then distill it. It is cooked long enough to avoid bad smell.



*Hanaeng*

**To make coconut lipstick:** Heat the coconut milk, stir it, and put *Niam* flower and pounded *Hanaeng*. Let it cool and keep it in box. *Hanaeng* is an herb in the ginger family but is not tuberous. *Hanaeng* is an aromatic long root and enriches the blood.

## Northeast Women's Knowledge in Market Development

The economic way of life of the Gudtaglai<sup>1</sup> people was traditionally based on subsistence economy. They consumed their own agricultural produce (vegetable and other processed food) and shared their surplus with kinship and neighbours. Ultimately, the villagers started to purchase food like the urban communities, and began to grow vegetable and process food to market in the community and neighbouring villages. They also joined weekend and open markets during festivals and feasts. Farmers have learned about the realities such as high competition and their disadvantaged position in these markets. Farmers of Gudtaglai made efforts to compete with the local market, thus established a green or alternative market for community products and fair trade/market for both producers and consumers in the north-eastern part of Thailand.

Traditionally, women used to weave primarily for domestic use, for souvenirs and gifts. They also sold goods such as cotton and silk. In time, when their products became known to other villages, women started to weave cloth to earn additional income for the households. Selling woven products was done individually until the idea to form a weaving group came up in 1998 to organise the production and marketing and to avoid unhealthy competition. The women's ability to sell and promote products have been recognised and developed through their experiences in group marketing. Men also have certain tasks in the group shown in the chart on page 63.

---

<sup>1</sup> The population of Gudtaglai belongs to the ethnic Phu Tai, who has their own cultural identity with their own language, traditions and cultures. Gudtaglai has a population of 166 households; all engaged in rice farming and earn income after their harvest. They mainly grow sticky rice for household consumption with the surplus used for sale. They also earn income from selling silk and cotton cloth.

## Marketing of vegetables and *Khanom Khee Ma*

Vegetable products require quality control, sorting, screening, washing and packing into bundles before selling to households. Prices are fixed at 5-10 Baht based on the affordability of the consumers. Products are sold to households and state agencies where there are many people, such as local administration units. Selling directly to homes is found to be convenient and saves on the travel cost. The best time to sell is in the morning and evening when people cook and are at home. Traders are contacted if there are bigger quantities of products to sell.

*Khanom Khee Ma* is sold every 2-3 days to houses in the village to save on transport cost, or brought to fairs. Pricing is reasonably fixed at 5 Baht per stick of 5 balls. They can be sold directly at the homes of villagers. *Khanom Khee Ma* is a sweetmeat made of glutinous coconut, salt and sugar, which is traditionally prepared and cooked by women.



*Khanom Khee Ma*

## Marketing of hand-woven cloth

The pricing of the product is calculated based on the production cost, material cost, travel cost and wages. Cloths with a better texture are more expensive. Woven cloth has to be made on instructed size and reed size. Marketing is done by wearing the product itself and explaining to customers. Promotion is done directly. Outlets are in various events, seminars, fairs and at the office of the group in the village. Accounting was initially done in a simple way. An organisation comes to help in bookkeeping since the marketing transactions and quantity of products increased over time.

The women's group organise the marketing tasks to ensure the quality of products, fix standard and reasonable prices based on affordability of the consumer, organise outlets, standardise product information and promotion. These are summarised below.

| MARKETING          | NATIVE RICE                                                                                       | VEGETABLE                                                                                                       | KHANOM KHEE MA                                                                                 | HANDWOVEN CLOTH                                                                                                                       |
|--------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 1. Quality control | Fan out dust, unhusked and lean seeds.                                                            | Choose the nice full and clean vegetable.                                                                       | Sort out the broken ones and choose the good ones.                                             | Check the cloth end with even pattern and required size.                                                                              |
| 2. Pricing         | Pricing is done with reference to farmers' groups in the same network. *(This is the role of men) | A price of 5-10 Baht is fixed based on rural people's purchasing power. Goods cannot be sold at a higher price. | Each stick of 5 Khanom ball is sold at 5 Baht, fixed based on rural people's purchasing power. | Pricing is fixed according to production cost, management costs and desired profit and comparable to prices in neighbouring villages. |

| MARKETING                           | NATIVE RICE                                                                                                                   | VEGETABLE                                                                                                                          | KHANOM KHEE MA                                                                                           | HANDWOVEN CLOTH                                                                                                                    |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 3. Outlets                          | At rice mills, trade fairs, local fairs and in other provinces.                                                               | Direct selling to households and communities and at state agencies and farms.                                                      | Direct selling to households, communities, neighbouring villages and at various feasts in the community. | Put on sale at various fairs, offices, different local organisations, schools, etc.                                                |
| 4. Public relations and information | Samples and information (e.g., on nutrition) are distributed; information on the group are written on the product label.      | Sale is announced to households; products are display.                                                                             | Sale is announced to households and the public.                                                          | Woven items (e.g., dresses) are worn or displayed; information on the product is provided; promotion of the products are conducted |
| 5. Packaging                        | Put in regular sealed and vacuumed bag with product label to provide information to customers.<br>* (This is the role of men) | Vegetable as whole plant or pods tied with bamboo strips that display the vegetable, or placed in a container made of banana leaf. | Use coconut leaf stem to hold 5 balls of Khanom each.                                                    | Put in a paper bag with a label of the women's group                                                                               |

## Conclusion: Women's Knowledge in Thailand

The study on the documentation of women's knowledge had clearly established that women, indeed, play key roles in developing and managing food security of the household and the community. Armed with experience and wisdom, women take care of their family and the community by providing their basic needs such as food, clothes and medicine collected from their environment and rich biodiversity.

## 1. Food

Women have knowledge on food production, preparation, and preservation. They preserve food when there is food shortage, and in the process, ensure the food security of the family and community. Women also manage and develop food that is suitable to the ecosystem, the community's way of life and culture, and for income generation contributing to their livelihood. In food production, seed is important, and women play a crucial role in collecting, selecting and keeping the seeds. Keeping the seeds and sharing it with the neighbours is passed on for generations. The main purpose of keeping seeds is to have a diverse range of seeds enough for home consumption.

Women have vast knowledge on the varieties and use of vegetables. In addition, women have wisdom in collecting food from nature especially during the dry season when food is scarce. This knowledge has been cultivated through years of experience and hard work. They are creative in developing and preparing delicious and unique food.

Women have countless methods in food preservation and processing. Food collected from the rice fields, forests and different water sources are preserved in many ways to prolong the shelf life of the food and to ensure food security. In Northeast Thailand, women have a special method of preserving food from nature; for example, they have a special method to preserve fish called *Pla Ra* (fermented fish), one of their major sources of food, along with native rice and salt. They have a method in preserving native vegetables such as bamboo shoots collected from the forest during the rainy season and making it last for years. Northeastern women have a lot of knowledge in making snacks using different rice varieties. Snacks such as *Khao Pong* (sweet and crispy rice), *Khao Tom* (steamed sticky rice), *Khanom Khee Ma* (glutinous coconut, salt and sugar), *Khao-pad Sweet* (cut sweet rice), *Khanom Jeen* (rice noodle) and *Khao Hang/Huang* (germinated brown rice) are mainly cooked and used during special

ceremonies. *Khao Huang* is a special method of preserving rice during rice shortage. They make this from young rice seeds and process it to consume while rice has not fully ripened. Northeastern women are the best in food processing, preserving and snack-making.

## 2. Clothes

Women's knowledge on clothes requires special skills and patience in weaving and dyeing. Women have to plan in advance so that family members will have enough clothes for both daily use and for special occasions. Weaving is a culture and it relates with people from birth until death. After the harvesting season, women spend most of their time weaving. Nowadays, weaving has become less important as this culture is being replaced by factory-made clothes. However, the culture of weaving for women still exists in some communities to augment income for the household.

## 3. Medicines

Women's knowledge on the use of herbs is diverse. Herbs can be used for curing ailments and for beauty purposes. Women use herbs through methods of boiling, drying, and oil extraction. Some herbs such as *galingale* (ginger family), lemon grass, and local ginger are used daily in food while others such as *plai* (Zingiber Cassumunar), *wan* (native plant), *bai pao* (Croton roxburghii N. P. Balakr) are used for medicinal and aromatic purposes. Herbs for beauty purposes include coconut oil, *kloy* (Dioscorea hispida) and the *Chloranthus inconspicuus* Sw (Sn), an aromatic, essential oil-containing type of flower.

At present, women are forced to generate more income for the family. The knowledge and experience gained over the years in agriculture have proven crucial and useful to sustain their family. The knowledge of weaving and food processing generate income for their families. Women are both producers and sellers. Through learning and innovation, they search for alternative and viable markets to sell their produce using simple yet creative techniques in product presentation, development and marketing.

PAKISTAN

# Women Farmers of Pakistan

## WOMEN'S KNOWLEDGE IN TRADITIONAL LIVESTOCK KEEPING

***Nasira Habib****KHOJ - Society for People's Education*

### Introduction

The history of Pakistan agriculture goes back to ten thousand years that has in its bosom knowledge and experience validated over generations. The traditional knowledge systems have reached a very high level of sophistication much before the advent of the modern scientific method. Traditional agriculture gave birth to life sustaining cultures.

Suddenly the knowledge systems which have been feeding the world were declared unscientific, irrational, backward and unable to provide enough food to the increasing population. While the fact of the matter is that modern knowledge utilised traditional knowledge, and then turned against it.



The contradiction between the two agricultures lies in the difference in their focus and purpose. For thousands of years, agriculture concentrated on sustaining life without commercialising food while the sole objective of modern agriculture is maximising profits for a tiny minority of people in the world being totally oblivious of the safety and security issues. Agriculture has been turned into agri-business. Food that was seen as the most inalienable right of the people has been turned into a weapon of political power.

Working with farmers since 1992, I have not interviewed a single woman or man farmer whom I found unhappy about the traditional agriculture. It was aggressively promoted and imposed on the farmers in the beginning. As the farmers refused to allow the agriculture department workers to add chemical fertilisers to their soils, they would broadcast the chemicals on the crops in the dark of the night. The miraculous growth of the plants stupefied the farmers and one after the other they fell in the trap.

Now they are bearing the brunt of chemical and commercial agriculture in the shape of degraded soils, polluted water and environments, ever increasing pest attack and unprecedented spread of diseases among human beings and livestock. Commercial agriculture has deprived them of self-reliance, sustainability and sustenance. They are caught in a vicious circle not knowing where to go.

They are living in a different world now where cash is required for fulfilling the most basic needs. The powers of profits have subjugated them.

The present day Pakistani society is at cross roads posing serious challenges and grave threats to women. The onslaught of Talibanisation supported by the successive governments has most adversely affected women. The new oppressive and suppressive interpretations of religion establishing the ultimate supremacy of men have invaded even the traditional safe spaces for women. The subtle permeation of oppressive mindset is more threatening

than the examples of naked brutalities. Subordinate roles with designated spaces have further lowered the self image of women; they see themselves as the corollary and mere appendages of men. Burning of girls' schools and flogging of women are some of the messages sent out to girls and women of the country. This as a result has further eroded the power base they had and the question of recognition of women as equal partners, and the recognition of their contribution in the socio-economic life becomes irrelevant.

Mechanisation and commercialisation of agriculture pretended as if women never worked and contributed in any sphere of life. Balance of power tilted even further against women when men replaced them in newly created cash-based, income-earning opportunities like food processing with machines for grinding, blending, drying, preserving, cloth-making like spinning, dyeing, weaving and stitching and processing of medicinal plants for home remedies. The modern industries treat women's expertise and knowledge as non-existent which has evidently resulted in lopsided development.

## **FOCUS: THE WOMEN FARMERS OF PUNJAB**

The research was conducted in the villages from the district of Sheikhpura in the province of Punjab. The villages mentioned are: Thathi Bhanguaan, Babuwala and Kot Mughal. A total of 40 participants with equal representation of women and men from the age group of 50 years and above were interviewed.

Wheat and rice are the two major crops in the sample villages in Sheikhpura. Wheat is cultivated in winter and rice in summer. A range of fodder crops is also grown primarily for domestic animal consumption. Livestock keeping is the mainstay of the agricultural activity. As the villages do not have access to road, horticulture is not a major activity. The farms are canal and tube-well irrigated, and crop farming is largely mechanised.

Women play an active role in almost all non-mechanised farm operations except irrigation.

Majority of the farmers are small landholders; the average land holding is 5-6 acres. Most of the occupational caste families have migrated to urban centres leaving the elite of the yesteryears with a host of psychological and social problems, which are causing serious hurdles in the development of the area.

## Key Issues

Women's perceptions and knowledge development is often seen to be different from men's perception and knowledge development. While women may look at developing technology and methods for the family and community, men may look for profit-oriented knowledge. It may be good to understand the way that knowledge is developed within a community and what is perceived to be male or female knowledge systems. It was found useful to study women's overall position within the village decision making process and how her knowledge is perceived. Are there special areas of focus of women knowledge for example, in animal husbandry, etc., and to see why this happens? How is knowledge shared and passed from generation to generation?



Modern technologies and how do they affect women and their knowledge was seen as another area worth looking at.

The documentation process should not be an extractive exercise. How do we do this so that the documentation is used in the community or is a tool for empowerment or builds the community?

It should be participatory and the end results should be beneficial to local communities.

The following broad areas of work and life and the corresponding issues were looked at:

### **Roles and responsibilities**

- What do men and women do?
- Where (location/patterns of mobility)?
- When (daily and seasonal patterns)?

### **Issues**

- *Productive roles* (paid work, self-employment, and subsistence production)
- *Reproductive roles* (domestic work, child care and care of the sick and elderly)
- *Community participation/self-help* (voluntary work for the benefit of the community as a whole)
- *Community politics* (decision-making/representation on behalf of the community as a whole), what is considered a woman's job, not a man's? Who governs the community politics?

### **Assets**

- What livelihood assets/opportunities do men and women have access to?
- What constraints do they face?

### **Issues**

- *Human assets* (e.g. health services, education)
- *Natural assets* (e.g. land, labour)
- *Social assets* (e.g. social networks)
- *Financial assets* (e.g. capital/income, credit)

### **Power and decision-making**

- What decision-making do men and/or women participate in?
- What decision-making do men and/or women usually control?
- What constraints do they face?

### **Issues**

- *Household level* (e.g. decisions over household expenditure)
- *Community level* (e.g. decisions on the management of community water supplies)

### **Needs, priorities and perspectives**

- What are women's and men's needs and priorities?
- What perspectives do they have on appropriate and sustainable ways of addressing their needs?

### **Issues**

- Needs and priorities?
  - "*Practical*" *gender needs* (i.e. in the context of the existing gender roles and resources)
  - "*Strategic*" *gender needs* (i.e. requiring changes to existing gender roles and resources to create greater equality of opportunity and benefit e.g. increasing women's access to economically gainful work)
- Perspectives
  - *Perspectives on delivery systems* – choice of technology, location, cost of services, systems of operation, management and maintenance

## **Women – custodians of traditional knowledge**

Pakistan has been one of the stars of the Green Revolution that systematically eroded the local practices in agriculture and downgraded traditional knowledge as backward and unscientific. State machinery aggressively promoted the new technologies and later, the private sector in collaboration with the state apparatus took the miracles of chemical fertilisers, pesticides and the new seeds to their logical conclusion. Monoculture replaced the biodiverse base of traditional agriculture. The fertile planes of the Punjab were the hardest hit.

Despite the onslaught, Pakistan offers a huge treasure of traditional knowledge that is still intact and in practice. The world famous canal irrigated villages of the Punjab have two parallel strains of farming, veterinary care, human health and nutrition. Commercial mono-crops are grown using Green Revolution technologies while household knowledge still enjoys a high status in veterinary care, human health, nutrition and home gardening.

## **Roles and responsibilities and their interface with creation of knowledge**

Families survive on women's knowledge. If one looks around at what is happening in the household, countless examples of women's knowledge in practice and advice can be witnessed in daily life. The health problems ranging from common health problems to reproductive health and childcare are addressed on a daily basis. Almost all remedies are rooted in the bounties of nature which come to us as a result of organised agriculture or uncultivated plants. Offering remedies for common health problems like cough and cold, indigestion, pains and aches, constipation and diarrhea require a deep understanding of the plants, their nutritional and medicinal properties and the human body.

Every woman has been a nutritionist in her own right – what are the ingredients of a proper diet; what was required for the sick and the elderly; what should be the diet of the children and what diet is needed by the pregnant woman and the lactating mother. In traditional systems, there were no nutrition specialists unlike the present times. Every woman was a nutritionist in theory and practice. The profound knowledge on cooking, nutritional properties of various foods, their combinations, cooking and preserving techniques is no secret. The food of the most resourceless people in the plains of Punjab shows the richness in thinking and the awareness of the nutritional requirements of the human body which are popularly known as a balanced diet. A whole meal of wheat flour '*roti*' with butter, buttermilk/milk and onions with chili paste is an indication of their knowledge of body requirements.

It has been a woman's domain to make arrangements to protect the family from the harshness of the weathers. It requires great knowledge to prepare a variety of drinks meant for summers and winters.





Women are not only the knowledge carriers but also the practitioners of that knowledge. Their experimentation is ongoing and they are fully cognizant of the variations which are required by different human beings.

Keeping the house clean and maintaining the hygienic conditions remained as the women's responsibility. The cleanliness of the villages of Punjab was proverbial and doctors used to advise patients from the towns and cities to go to the villages for a clean and healthy environment. Mud plastering of houses required technical knowledge of the ingredients of the plaster from the point of view of construction and pest and disease management.

Rural women's multiple roles take place not in isolation and are not mutually exclusive but their responsibilities lead them to multitasking most of the times. The food they prepare, process and preserve does not restrict their activity to the confines of the house but they have to work side by side with men in the agricultural fields to produce and harvest that food. They are responsible to store the seeds, to transplant the paddy, to grow vegetables for domestic consumption and commercial use and to root out the weeds in the fields.

Unlike men who are more into mono-cropping, women go for growing long life vegetables like garlic, onions and chillies which are the most basic ingredients of Punjabi cooking, in order to ensure food security for the family. They grow a range of other vegetables; the work demands women to do a lot of jobs. Many a time they are denied even the smallest piece of land to grow vegetables for the family. Thus their job starts with finding space for sowing vegetables which will become part of the men's food as well at home. Those dividers of the fields which are not treaded upon and which have enough sunlight are chosen to grow vegetables like carrots and radish. Sustainability of the household economy is always a primary concern for women. In fact, the local culture expects from a "wise and mature" woman to save for the rainy days and for special occasions no matter how meagre the resources are and even if the man at home is in a habit of squandering the money away.

Milk and milk animals are an integral part of rural Punjab especially and rural Pakistan generally. Even landless families are like fish out of water without a milk animal at home. Milk, buttermilk, curd, butter, and ghee are necessary accompaniments with the staple food that is primarily wheat and secondly rice. Not only in the area studied but also as a general





rule, 70-80% of the milk animal keeping work is taken care of by women in Punjab. Milk animals are the lifelines of agriculture in Punjab. One can well imagine what a vital role women play in Pakistani agriculture if their only role in livestock rearing is kept in view.

The activities ranging from animal feed, disease management, to the management of the housing environment have the direct involvement of women. With the advent of mechanised farming, fodder is generally not cultivated but bringing fodder, offering feed and water, preparing home-based medicines, keeping the shed clean and taking care of the young and sick animals are all seen as women's work. "When my husband comes home after the day's work and if I tell him that so and so animal is sick, take him to the doctor, he would get hold of a stick and beat me. I have to manage the animal's sickness myself." This statement from a respondent shows the deep involvement of the rural women in the business of livestock keeping. According to the Punjab Livestock Department website, livestock contributes more than one-half (50%) of agriculture value added, much more than the contribution of all other crops, major and minor combined (48%). Its contribution to the national GDP is almost 11%, which is higher

than the contribution made by the entire crop sector (49.6% in agriculture and 10.4% in GDP).

In the present day world of specialisation, not one professional is trained to take care of the different aspects of animal life. One has to contact a range of specialists i.e., one on feed, the other on disease, still another on housing and so on. Generally, these specialists work in isolation from each other. Consulting them all demands time, energy and a lot of resources that farmers with limited resources are not able to afford. Women have been doing this for centuries, in a holistic and an integrated manner. What is the result of their work? Pakistan is the number five highest livestock producing country in the world.

Ensuring subsistence of the families, providing healthy and nutritious meals, administering disease management, rearing the milk and draught animals demand knowledge that is broad-based and rooted in a perspective that sees different aspects of life as interrelated and mutually dependent; knowledge that is highly sophisticated, technical and scientific.

Can the women doing all that be labeled as uneducated, ignorant, unskilled and untrained?



### Khurshaid - A Case Study

Khurshaid who is in her late seventies, remembers fondly the pre-Green Revolution agriculture. There was no pest attack those days, she says. The use of poisons is a recent happening and infestation of insects and diseases is also a recent phenomenon. Human beings have also become a victim of pesticides and chemicals.

New seeds cause diseases, she asserts. Not only that, she believes like countless other farmers, that nitrogen chemical fertilisers breed insects. You dig a hole, she says, fill it with urea and cover it with the soil. Open it after a few days, you would find it full of worms.

We used to extract oil from wheat but with the new varieties that is not possible.

In our times, we used to eat *dailey*, *sangar* and *peelu*. Animals were also offered *peelu*. This food is not available any longer. We had healthy food; butter milk during breakfast. Nobody knew about tea. *Roti* with milk or *roti* with pickle was our meal. *Halwa*, hand-made vermicelli cooked in milk and *zarda* (sweet rice) were our festivities. We also used to eat wheat porridge.

## **Women as food growers for the family in the present day context**

After the Green Revolution and the mechanisation of agriculture, women have been totally displaced of the decision-making domain as regards selection of crops, agricultural inputs, disposal of the produce or the use of income earned. The only platform for asserting themselves is the platform of growing food for domestic consumption. Home gardening is the only sphere where they have total freedom to prepare select varieties and choose which inputs to use. The extremely restricted space for



independent decision-making, that is home gardening, corresponds with their limited final say in the family and other social affairs.

Women's logic in selecting vegetables, fertility and plant protection management is fundamentally different from the thinking of their male counterparts. They are concerned about the health and well-being of the family and they avoid using those inputs which are poisonous, adversely affect the taste and texture of food and shorten the shelf life.

They also want to make optimum use of the limited land resources at hand. Instead of mono-cropping and spending the limited amount of cash they have on food, they prefer to grow themselves what they need in the kitchen. The usual practice is to grow long life vegetables in small plots of land. Garlic, onions and chilies are grown in relatively surplus quantities so that the food could be exchanged with other households. Vegetables like mustard greens and turnips are grown as fodder and are harvested throughout the season from the same fields for human consumption. Women grow a number of other local seasonal vegetables on small plots of land.

The family food is grown on the principles of organic farming that has always remained an integral part of traditional agriculture in Punjab.

## **Women as caregivers and healers**

The discourse on traditional knowledge in agriculture assumes it to be static which is far from reality. As far as women are concerned, they have kept the tradition alive and the remedies are widely in practice in the spheres of human health, livestock keeping and crop farming.

## Health Tips and Remedies

The following documentation is based on the knowledge that is rooted in agriculture and is still in practice:

### HUMAN HEALTH

The nomenclature of Grandma's health tips or remedies testifies the profound knowledge base of women on human health.

---

#### Constipation

- REMEDY 1:** Eat a stomachful of guava.
- REMEDY 2:** Add two teaspoons of *ispaghol* (psyllium husk) husk to a cup of hot milk and drink before going to bed. There should be at least two hours' gap between the dinner and the drink.
- REMEDY 3:** Eat a quarter kilo of grapes after a meal.
- REMEDY 4:** Eat *sarson ka saag* (a preparation of mustard greens with some spinach) for three to four days. Take three parts mustard greens and one part spinach. Chop them finely; add red chilies and salt and let it cook for more than thirty minutes. Then smoothen with a stick. Fry some finely chopped garlic in ghee. Eat it with 'roti'. This is a home remedy as well as a delicacy in Punjab.
- REMEDY 5:** Take one teaspoon of *gulqand* (Rosenmarmalade) with a cup of hot milk before going to bed. To make *gulqand*, take fresh petals from roses; add some honey and sugar and leave the ingredients for fifteen days. The *gulqand* is ready.

---

#### Diarrhea

- REMEDY :** Add two teaspoons of *ispaghol* husk in 100ml of curd and eat three times a day.

---

## Cough

- REMEDY 1:** Take a teaspoon of honey and add a pinch of black pepper powder as cough relief.
- REMEDY 2:** Take a teaspoon of honey and add some ginger juice, and eat bit by bit.
- REMEDY 3:** Take a teaspoon of honey, a pinch of black pepper powder, some ginger juice and one green cardamom (powdered) as a cough remedy.
- REMEDY 4:** Suck a small piece of licorice. It is very effective in relieving cough.

---

## Burns

- REMEDY 1:** Cover the burnt surface with rock salt for ten minutes. This remedy is for common, ordinary burns.
- REMEDY 2:** Dissolve some indigo in water and add salt. Cover the burnt surface for ten minutes.

---

## Freckles on face

- REMEDY :** Take equal quantities of mustard seeds, oat flour and rose petals and grind them into a paste. Add just enough water to turn the ingredients into a paste. Apply on the face every day for a month.

---

## Toothache

- REMEDY 1:** Chew one or two cloves.
- REMEDY 2:** Take equal quantities of mustard oil and salt and apply on teeth with a finger and then wash your mouth.

---

## Blood purification

- REMEDY 1:** Bitter gourd juice: Drink juice of one bitter gourd first thing in the morning for ten days.

## Indigestion

- REMEDY 1:** Take a small piece of fresh ginger and boil in a quantity of water for five minutes so that you are left with one cup of ginger tea. Add sugar to taste and drink.
- REMEDY 2:** A pinch of fennel seeds, two sprigs of mint without leaves and a pinch of cumin seeds. Add water and boil for five minutes. Add sugar and drink. The preparation can be kept for a few hours and can be taken every three hours, for two to three times a day.
- REMEDY 3:** Take 25 grams of pomegranate seeds; grind into a paste. Add some water to dilute it. Then strain, add a pinch of salt and drink.
- 

## Dandruff

- REMEDY :** Mix an egg and some curd enough for the hair. Apply and massage.
- 

## Hair fall

- REMEDY :** Take one kilogram of beetroot and cut it into small pieces. Add one litre of mustard oil and let it simmer till the beetroot pieces turn black. Remove the burnt beetroot pieces. Let the oil become cool. Apply thrice a week.
- 

## Head lice

- REMEDY :** Take neem seeds; crush them; add in mustard oil. Apply the oil on the hair.

## SUMMER DRINKS

---

- RECIPE 1: *Sattu* (oat flour drink):** Roast and pound oats. Take one glass of cold water; add locally made *shakr* (a kind of brown sugar) and drink. Pounded oats are kept at home in sizeable quantities and the drink is taken almost on a daily basis in the villages of central Punjab in Pakistan.
- RECIPE 2: *Raw mango drink*:** Keep the raw mango on heat till it softens. Let it cool down. Then add the liquid to cold water and add sugar to taste. This is a very refreshing drink and is very effective for heat stroke.
- RECIPE 3: *Buttermilk*:** Churn curd and remove the butter. Add cold water and a pinch of salt. The more watery the drink is, the more refreshing it is.
- RECIPE 4: *Kacchi lassi* (diluted milk with water):** Take a quarter of a glass of milk, fill the glass with cold water and add a pinch of salt.

## MILK ANIMAL KEEPING

---

### Increase in milk production

- RECIPE 1:** Cottonseed without soaking in water added in the feed is instrumental in increasing the milk production.
- RECIPE 2:** Milk the animal under treatment. Add one and a half kilogram of sugar and then offer the animal to drink the sugared milk.

### Early conception

If a cow/buffalo is given one to two kilograms of dry cottonseed daily until she has consumed forty kilograms, the animal gets pregnant faster. Otherwise, they sometimes don't conceive for up to two years.

---

### Consideration of weather in preparing feed

In winter, oilseed cake is boiled and given to the animal; while in the summer, oilseed cake is soaked in water in the morning and offered in the afternoon.

During summer, coarsely pounded oat is soaked in water and then given to the animal. Brown sugar water and oat flour drink is also given.

---

### Loss of appetite in animals

**RECIPE 1:** Licking rock salt is a time-tested remedy for loss of appetite and is a great digestive. A piece of solid salt stone weighing ten to twenty kilograms is kept in the trough as a matter of routine.

**RECIPE 2:**

|                              |            |
|------------------------------|------------|
| Ginger                       | 250 grams  |
| Onions                       | 250 grams  |
| <i>Gur</i> (dried mollasses) | 1 kilogram |
| Salt                         |            |
| Wheat flour                  | 250 grams  |

Pound ginger, garlic and *gur* and then add salt and wheat flour. Shape the mixture into balls weighing approximately 150 grams each. Give a ball mixture to the animal in the evening.

**RECIPE 3:** Take salt and white cumin seeds in equal quantities and grind into a coarse powder. This powder is put inside the mouth of the animal.

---

### Constipation:

Decoction of *gur*:

|                             |           |
|-----------------------------|-----------|
| <i>Gur</i> (dried Molasses) | 250 grams |
| Mustard oil                 | 125 ml    |
| Water                       | 1 liter   |

Mix all the ingredients together; keep on the stove and keep it boiling until the decoction is reduced to approximately 250ml. Give it to the animal, as a laxative.

---

### Easy delivery and increase in milk production:

|                             |            |
|-----------------------------|------------|
| Wheat porridge              | 1 kilogram |
| Dried molasses              | 1 kilogram |
| <i>Bajra</i> (pearl millet) | ½ kilogram |
| <i>Ghee</i>                 | 1 kilogram |
| Water                       | 1 kilogram |

Cook a very well done porridge and offer it to the animal in the evening. Delivery will take place with great ease.

---

### Foot-and-mouth disease:

Soak oat flour in water and offer it to the animal. Keep giving this feed for three to four days.

Take a peel of *keekar* (*babool/acacia*) and *peepal* (*Bo Tree/Ficus religiosa*). At 1 kilogram each, boil in 10 kilograms of water; let it cool and wash the feet of the animal with it three times a day.

---

### Itchiness

**REMEDY 1:** This disease is caused when milk animals are kept in the same area along with the donkeys and when they sit in a place where there is donkey urine or excreta. The best precaution is to make sure that the donkeys are kept separate from milk animals. (*“But men do not listen to women easily”*, according to one respondent)

**REMEDY 2:**

|                             |          |
|-----------------------------|----------|
| Neem leaves                 | 20 grams |
| <i>Ajwain</i> (carom seeds) | 10 grams |
| <i>Ghee</i>                 | 50 grams |
| Turmeric                    | 10 grams |

Keep all the ingredients in a shallow pan and put on a stove until all the ingredients are burnt and turned black. Separate the oil and apply on the body at night. Repeat in the morning.

### **Gastritis**

**REMEDY :** Give saltish buttermilk to the animal. If the problem persists, give a quarter of a kilogram of mango pickle.

---

### **Prolapse of uterus**

**REMEDY :** Pour wheat liquor on the prolapsed uterus.

---

### **Chemical Pesticides and Home Remedies**

The women respondents of the study expressed concern that for certain ailments of the livestock, the traditional remedies are no longer working. As the symptoms of pesticide poisoning and certain other ailments are similar, they are worried about the ineffectiveness of their remedies in certain cases.

Literature from other countries also endorses the farmers' problem.

### **Validation of traditional knowledge**

Validation of that knowledge and practices is not necessary as it is still current and is successfully responding to the needs of the communities. There should, in fact, be a resistance to succumb to the pressure that traditional knowledge should fulfill the criteria of modern scientific method.

### **Conclusion and recommendations**

Women are not represented in the knowledge systems. It is not only an epistemic and justice issue but has been contributing in the erosion of cultures of self-dependence on food, health management and safe environment. Making women's knowledge visible and commanding the



recognition of their critical role in building and practicing knowledge is absolutely essential. Recognition entails power sharing.

In order to develop result-oriented strategies to receive recognition, a deeper analysis of the root causes of keeping women's contribution as knowledge creators and practitioners invisible and unrecognised is a prerequisite.

As the subjugation of women is craftily woven, the root causes have to be understood and addressed through an organised movement. Careful deliberations are required to develop innovative strategies that ensure women's fundamental right to own and control land and other resources. Secondly, women's roles and responsibilities need to be redefined from a woman's perspective. In the same spirit, the foundations of knowledge merit a review and screening from a standpoint of the communities, especially women; their problems, their needs and their aspirations.

This is a gigantic task that warrants a vibrant movement with participants and activists from all walks of life; and the process of discussion, analysis, debate, lobbying and advocacy is set in motion. Pressure groups are mandatory in order to see some change taking place.

The initial step to formalise the recommendations on alternative roles and responsibilities, the rights to land and resources and a new definition of knowledge that incorporates women's knowledge is to give these a legal cover through legislation. As is evident from the history of women's struggles, mere legislation is not enough; we need to be creative and devise new strategies to assert the rights and contributions of women.

In order to bring women's knowledge on board, a women's perspective and a gender policy on knowledge and the foundations of pro-people knowledge are required. These documents can provide a framework and guidelines for future planning and programming.

A database of women's traditional knowledge acknowledging the communities' ownership can act as a watchdog against the piracy that is taking place at the international level.

## Sample: Semi-Structured Interviews Questionnaire

### Documentation of Women's Indigenous Knowledge

#### Semi Structured Interviews Questionnaire

Respondents 50 years and above

#### 1. Respondent's Profile

Village

Name of Respondent

Gender

Age: (In complete years)

Occupation

Marital Status:

#### 2. Daily work: (Enlist major activities, involving substantial time span)

#### 3. Farming

What is the difference between the agricultural practices of your childhood and the agricultural practices of today?

What did you practice for the following:

- Soil fertility management-crop wise
- Plant health (diseases, insects, fungus etc.)-crop wise
- Increasing crop productivity-crop wise
- Marketing the produce-crop wise
- Storage of seeds and food grains and other food items-crop wise

#### 4. Livestock Keeping

What is the difference between the livestock practices of your childhood and the livestock practices of today? What were the problems faced in dealing with animal health?

#### 5. Health

What were the health problems people faced in your village?

What home remedies were used in your family and the village?

What did you know and what did you do about the following?

- Problems women face during and after pregnancy
- Problems in raising children
- Common diseases like headache, stomach problems, blood pressure, diabetes etc.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Do you know the health problems caused by improper drainage and sanitation system in the village? What are possible problems?<br/>         What did you know how to treat poisoning-food, snake bite, poisonous plants, insects, animals?<br/>         Do you have access to clean drinking water?</p>                                                                                                                                                                                                                                                          |
| <p><b>6. Nutrition</b><br/>         Do you know the properties of various food items like vegetables, fruits, milk, cereals and grains?<br/>         Do you know what diet is required for small babies?<br/>         Are you aware of the diet required by pregnant women?<br/>         Do you how to save nutrition in food while cooking?<br/>         Do you know the food that can keep people healthy?<br/>         Are you aware of the presence of pesticides in your food?<br/>         How much you know about human body and its food requirements?</p> |
| <p><b>7. Cultural Practices</b><br/>         What kind of food did you typically had in olden days?<br/>         What is the difference in eating habits?<br/>         Is there any difference in the clothes?<br/>         Is there any difference in consumption patterns? Do people spend more or less now?<br/>         How was wedding ceremony and the festivities like? What was the wedding feast like?<br/>         Was harvesting celebrated and how?<br/>         How were the meals were organised?</p>                                                |
| <p><b>8. Knowledge around Cooking-Properties of Foods and Recipes</b><br/>         What were the every day dishes?<br/>         How did you cook those dishes?<br/>         What were the vegetable combinations you cooked?<br/>         Did you know the reason behind the combinations?</p>                                                                                                                                                                                                                                                                     |
| <p><b>9. Gender Relationships</b><br/>         What are women's responsibilities, decision-making and work areas?<br/>         Are there gender differences in the work and rituals and ceremonies affecting all of the above areas?</p>                                                                                                                                                                                                                                                                                                                           |
| <p><b>10. How do you compare the two systems of agriculture? What are the major problems in our present-day agriculture?</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                   |

*Note: This sample questionnaire is designed for free flowing interviews, to avoid a mechanical question-and-answer exercise. Instead of taking notes on the paper, the use of a sound recorder is recommended to nurture a free flow of ideas and real dialogue. The strong rapport between the researcher and the respondents will further reinforce the dialogue.*

# Authors

## Philippines

**Ma. Pilar Castro-Pablo** is a senior agriculturist and researcher at SIBAT. She is an advocate and expert on community-based sustainable agriculture and genetic resource conservation. She has worked in Mindanao together with a local partner, CLANS, among the Blaan communities to develop the diversified and integrated farming systems (DIFS) in the upland areas.

**Victoria M. Lopez** is the executive director of SIBAT. She is a researcher and also an editor. She has taken the lead in the development of community-based appropriate technology in the Philippines, in the fields of sustainable agriculture, genetic resource conservation, renewable energy and small water systems. She is also an advocate of women's right; especially the rights of women in agriculture.

**Sibol ng Agham at Teknolohiya (SIBAT)** or Well-spring of Science and Technology is a Philippine network of organisations in appropriate technology for rural development. Community-based sustainable agriculture is its core area of work, that includes the promotion of conservation of genetic resources. SIBAT recognises, upholds and promotes the important role of rural women in agriculture.

## Thailand

**Montawadee Krutmechai** is the General Director of the RRAFA. Aside from managing the organisation, she focuses on programmes and projects on alternative agriculture, gender equality in agriculture development, and campaigns on agricultural policies.

**Varuntorn Kaewtankam** is the Programme Officer of the Capability Building and Networking Programme of RRAFA. One of her main roles deals with strengthening women's potential in alternative agriculture development, production, processing and marketing.

**Foundation of Reclaiming Rural Agriculture and Food Sovereignty Action (RRAFA)** is an organisation dedicated to strengthening rural communities. RRAFA promotes participation of communities including academicians, activists and civil society organisations to take part in decision-making processes favourable to sustainable society and initiating alternative solutions. RRAFA pays attention to organisational development, learning processes, participatory action research, human resource development, policy study and campaign as well as networking with NGOs and farmers' organisations.

RRAFA is committed to strengthening farmers and NGO workers' potentials in developing the local genetic resources use and management, alongside with the articulation and development of sustainable agriculture systems. RRAFA works with farmers and communities to achieve food sovereignty.

## **Pakistan**

**Nasira Habib** is an educationist, an action researcher and a development practitioner. She has been working with grassroots rural women using alternative methodologies which are liberating and empowering. She believes in the holistic development and integrative education. She is the founder of Khoj - Society for People's Education. She has authored, in English and Urdu, numerous publications ranging from manuals for teachers to text books for learners and studies on a range of educational, gender and environmental issues, published in Pakistan, India, Malaysia, Germany and England.

***Khoj - Society for People's Education*** started its grassroots work in 1995 and works for adult and children's education through an alternative approach and methodology inspired by the principles of relevance and gender equity. Its mission is to work with the "underserved communities, with a special focus on women in achieving major improvements in their lives." Khoj works using innovative methodologies directly with the communities, and with local and international partners who share its vision "to create just and peaceful societies where the disadvantaged people, especially women, can exercise their fundamental rights." To achieve this mission, Khoj engages in long-term development work through education for development, health and livelihoods.

