

SUBSISTENCE AGRICULTURE AND WOMEN'S ROLE: CASE STUDIES IN BANGLADESH AND JAPAN

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Abstract: This paper discusses on the role of kitchen gardening by showing case studies in Bangladesh and Japan. Although situated in ecologically and economically different conditions, kitchen gardens have persisted in both cases, mainly maintained by women. With the expansion of market economy, devaluation of such subsistence production has been occurring, but on the other hand, movement for reevaluation also can be observed with the disclosure of modern technologies' limitation. Detailed reviewing and verification of subsistence agriculture is hastened in search for the alternative idea of development.

Key words: subsistence production, homestead, kitchen gardening, women, Bangladesh, Japan

INTRODUCTION

With the penetration of market economy and economic globalization, subsistence agriculture to meet family's daily needs has been oppressed. Under the expansion of cash crop production, there still exists subsistence production such as kitchen gardens or homestead gardens maintained by women. Their knowledge and skills on managing subsistence production have been underestimated, but these days, they have come to be re-evaluated as the fragility of namely modern mono-culture production systems concerning the environmental and ecological healthiness become obvious (Shiva, 1993).

By showing case studies of kitchen gardens in Bangladesh and Japan under ecologically and economically different conditions, this paper examines the role and prospect of subsistence agriculture maintained by women.

RESEARCH METHOD AND FINDINGS

Bari-bhiti (homestead) utilization in the floodplain in Bangladesh

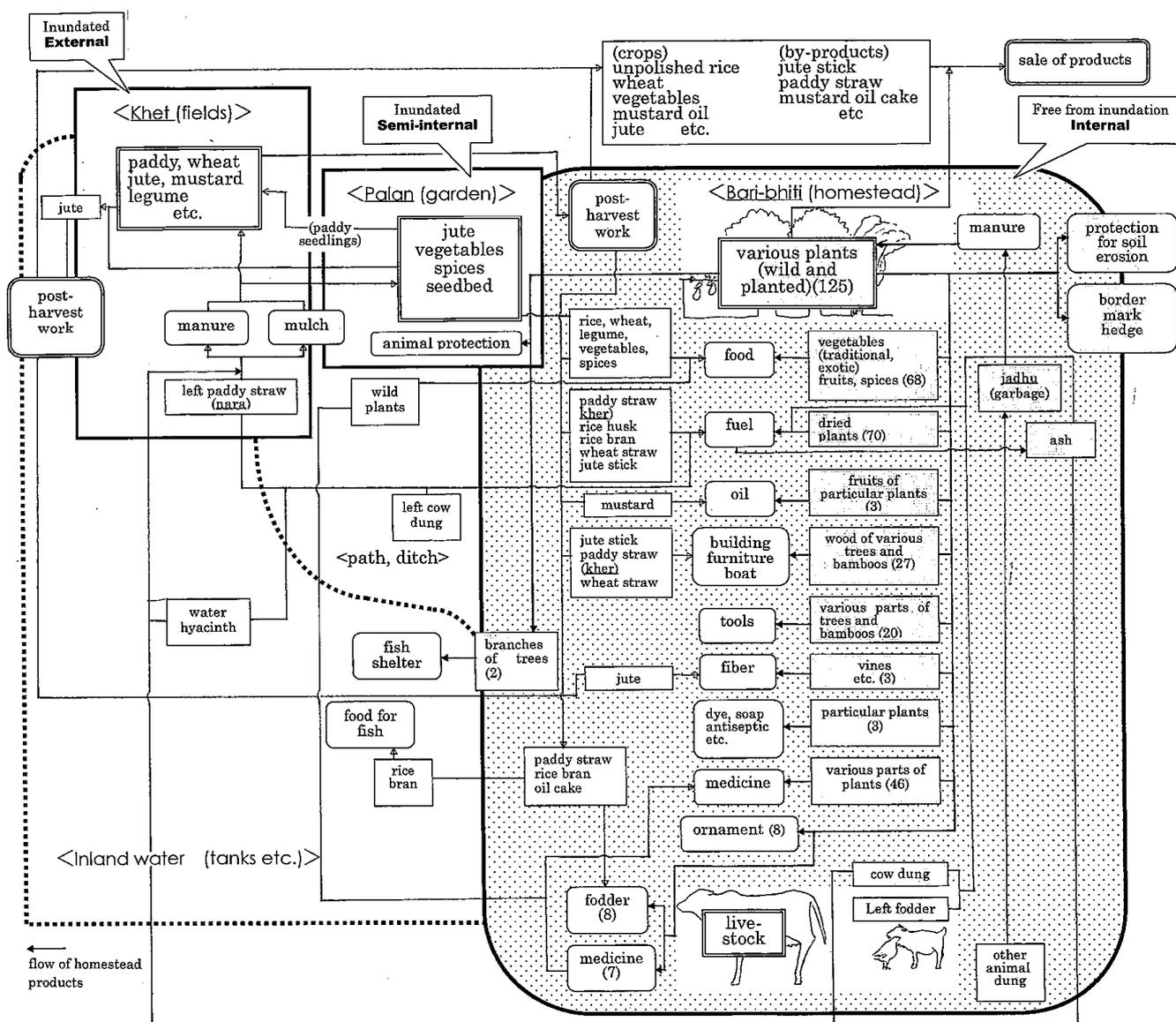
Research was conducted since 1992-1995 in one village on the floodplain in Tangail District (village D herein after), about two hour's journey from Dhaka. Detailed mapping of plants in sample *bari-bhiti*, and compiling villagers' knowledge on each plant were conducted. Besides them, villagers' behaviors to get new resources were analyzed.

On the floodplain, *bari-bhiti* needs to be mounted 2 to 3 m height to escape from inundation from flooded water, and the size of *bari-bhiti* was limited (371 m² on average in 1992 survey), but it provided the only place free from flooding, and many kinds of plants, especially perennial plants, were growing. Compared to the considerable number of those who have no farmland (about one fifth of total households), those without *bari-bhiti* were quite few.

In the whole village, 125 species of plants were observed in 1992 which was far diverse than other production area such as *khet* (crop field), or *palan* (gardens adjacent to *bari-bhiti*) (Figure1).

Villagers held deep knowledge on growth habit and utility of each plant, and they devised to allocate plants to make full use of limited space adjusting such plant's such tolerance as against shade, direct sunshine, draught, inundation. Leaves of plant were

diverse such as food material, medicine, fodder, livestock medicine, timber, tool material, fuel, ornaments, protection for soil erosion, toy, and so forth which had been handed over generations. On *bari-bhiti*, livestock like cattle, goats, sheep, chicken, geese were raised, and fish were raised in tanks on the side, too. With intensive utilization of *bari-bhiti*, one could get most of what (s)he needs except for staple food.



(Source: from field survey and interviews)

Figure 1 Utilization of resources in D village

Being Muslim, women are not allowed to move freely, and *bari-bhiti* was the main activity area for them. They were responsible for production and seed preservation of plants grown there. *Bari-bhiti* products were used not only for self consumption, but also for sale among neighbors or at local markets. Work performed in *bari-bhiti* such as post-harvest and domestic work was also women's task. Provision of food for family started from fuel gathering. Besides various by-products from crops, they gathered branches, leaves, cow-dung, and even aquatic plants were used in case of fuel scarcity after dried in *bari-bhiti*. Securing food materials was also important task, and they knew well about edible plants including wild plants, and various recipes have been developed fully utilizing every growing stage.

Women's movement seemed to be limited, but they played key roles for getting new plant resources through neighboring networks and by establishing new relationship through marriage. With the expansion of commercial nurseries, villagers came to purchase seedlings of commercially valuable plants, and such purchased seedlings were usually under men's control. Women's responsibility remained for management of traditional plants mainly for family use.

Kitchen gardening and farmers market in hilly area in Japan

Village A is located in the hilly area in Chiba prefecture, about three hours' journey from Tokyo. Besides repeated records of kitchen gardens, interviews on resource management, and survey on farmers' market were done in

1995-1999.

Most households gained income from non-farm job nowadays, and full time farmers became quite few. Even though not being full time farm households, many villagers held kitchen gardens and grew vegetables for self consumption. Kitchen gardens were usually located adjacent to, or a little apart from homestead if enough land was not available, and mainly maintained by women. Since the main purpose was for self consumption, various vegetables were grown in limited space. Unlike commercial crops, women chose species or varieties according to their daily needs, and thus diversity was considerably higher than fields. To be able to supply vegetables throughout the year, especially for the yearly events, they combined various varieties of one species considering harvest seasons, and even if fruits were poorly shaped, they cook well.

Each garden reflected the character of the grower. One's garden was filled with flowers, and the other's was with exotic vegetables (Table 1). In total, various crops were grown in the whole village. They tried not to use chemicals for the family's health, and fresh harvest was supplied directly to the kitchen.

Although such kitchen gardening had been persisted for generations, it used to be underestimated because they made little profits. Women's activities on kitchen gardens tended to be regarded as hobby, and vegetables were taken place of purchased ones. But nowadays, with the increase of consumers' concern on safety and freshness of food,

Table 1 Available resources in kitchen gardens and other production areas

	Ms. A	Ms.B	Ms.C
Paddy fields	-paddy -soybean (fallow fields)	-paddy	-paddy
Mushroom nursery	-mushroom(shitake)		-mushroom(shitake)
Kitchen-gardens and homestead			
-Legumes	3 species	4 species	5 species
-Staple vegetables	2 species, 4 varieties	3 species	2 species,3 varieties
-Root vegetables	7 species, 9 varieties	3 species	4 species
-Fruit vegetables	12 species, 14 varieties	11 species	10 species, 12 varieties
-Leafy vegetables	13 species, 14 varieties	12 species, 13 varieties	7 species, 10 varieties
-Mushrooms	1 species	--	
-Flower	4 species	29 species	17 species
-Fruit trees	7 species	5 sprcies	5 species
Woodlots	-fruit trees (3 species) -timber trees (7 species) -wild vegetables (5 species) -other usage (ornament etc.)	-timber trees	-timber trees -fruit trees (3 species)
Remarks	-full time farm household -kitchen garden is a little apart from homestead because of the smallness of homestead -member of a farmers' market	-part time farm household -kitchen garden is adjacent to homestead -member of a farmers' market	-part time farm household -two kitchen gardens (one is in front of homestead, and the oter is a little apart) -member of a farmers' market

(Source: field survey and interview¹⁾)

1)Survey was conducted jointly with Shonosuke Tomita.

products from kitchen gardens came to be reevaluated through the activities of farmers' markets. Women got opportunity to sell the extra production and get chance to be evaluated their activities by customers. They become confident of the importance of kitchen gardening. Existence of farmer's markets encouraged to grow more various plants and gather wild plants, which would contribute to the conservation of environment and diversity of local resources in the long run. On the other hand, their production tended to be affected by consumers' tastes, and also there was temptation to scale up the production to get more profit rather than selling extra of the products originally produced for own family.

DISCUSSION

Situated on quite different ecological and economical conditions, there were commonly observed subsistence agriculture mainly maintained by women in both cases, resisting against the dogma of efficiency and profitability. Women grew various plants, which sustained the diversity of plant resources in the area.

In the case of Bangladesh, devaluation of such women's contribution had been deepening with the expansion of monetary economy. Women were also spurred to generate cash income, and subsistence production was paid little attention to even by women themselves.

In the case of Japan, such devaluation also persisted, but recently, women's subsistence production came to be focussed with the rise of re-evaluation of safety, freshness, locality and tradition of food. Consumers gathered local farmers' market to share the experiences and information with farm women. Through such communication at market, farm women came to reevaluate the importance of their own activities and got self confidence.

Against the expansion of globalization of economy, more support for counter current approving alternative value such as ecological soundness, safety, tradition, and reconstruction of community is needed for finding out the alternative path for development. Local knowledge on subsistence production maintained by women plays key role for it. Reevaluation and scientific backup through detailed reviewing and verification of

their knowledge is hastened before rural women lose their confidence and knowledge that have been fostered through generations.

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Reference

- 1) Shiva, Vandana.1993. *Monoculture of the mind*. (Japanese translation by Takahashi, Yuki. 1997. San-ichi Shobo. Tokyo. 72-88.)