# Market Networks of Women for Indigenous Vegetables in The Village of Hambaro, Nanggung Subdistrict, West Java.

H. Puspitawati[1], Tin Herawati [1] and Trikoesoemaningtyas [2]
1. Department of Family and Consummer Studies, Faculty of Human Ecology
2. Department of Agronomy and Horticulture, Faculty of Agriculture
Bogor Agricultural University, Bogor – Indonesia 16698

## Abstract

**This study was aimed to understand how gendered networks and coalitions affect the ability of groups to access and control natural resources and to access appropriate markets and capture value for their agricultural products. The study was conducted in the village of Hambaro, Nanggung subdistrict, Bogor West Java,from July to November 2008. A qualitative methodology was applied including focus group discussion, mapping and in depth interview. The study showed that men produce and sell main agricultural products such as rice , corn or cassava, while women may produce and sell minor vegetables. Most agricultural products are used for consumption and the surplus are sold around the village or to the middlemen. Commercial production by women farmers started with jasmine flower and later with guava. In the village of Hambaro, the access to market is open to everyone, but dominated by men. Only a small number of women in Hambaro use the access to market their products. All nodes in the marketing network of vegetables and fruit/guava are dominated by men. The middlemen provide information on demand and price of products. Men and women obtain the same price when they use the same network. Men get higher price only when they go directly to the big market. Most women do not negotiate for price only on the term of payment. Although men dominated the market for vegetables and fruits, the allocation of expenditures from the sale of vegetables and fruits are similar to that of women. The source of power of men is from the long established network between men and the middlemen. In addition to institutionalized farmer groups and access to capital. The source of power of women is mainly from family networking and supports. Women who are actively participated in marketing gain support from their husband in production and marketing of vegetables and are more confidence in negotiating obstacles in marketing Katuk by selling directly to consumers/retail and obtained higher price than from middlemen.**

## INTRODUCTION
### Background

The Village of Hambaro, in the subdistric of Nanggung, is located in the western part of the West Java Province. Nanggung is considered as one of the less developed subdistrict in the Bogor Regency with the highest number of poor households. The main productive activity in Nanggung is agriculture, mainly rice, although most households income comes from non-agricultural activities.

A vegetable agroforestry (VAF) system was introduced to the Nanggung Sub District through a project supported by SANREM . This system is believed to be able to increase income of farmers through the introduction of high value vegetable crops and improve farmers's livelihood and at the same time reduce the risk of furhter degradation of watershed area and maintain sustainable agriculture. Underlying the VAF approach is the assumption that access to markets will enhance livelihoods and play a significant and positive role in sustainable agriculture and natural resource management.

Access to both natural resources and markets is gendered, and gender mediates the distribution of benefits between individuals and within households in given communities. Socio economic study showed only small numbers (12.1%) of women in Nanggung are involve in dryland agriculture. The study also showed the lack of women active participation in vegetable marketing. According to Gammage et *al.*(2005), women who engage in production and join the market face constraints and opportunities unlike those of their male counterparts. This is because socio-cultural proscriptions can inhibit women's market entry and access or limit their economic mobility. Although still dominated by men, a fair number of women in Nanggung have access (12.6%) and control (12.6%) over marketing of agricultural products, including indigenous vegetables, and 12.2% of women have access to information on the price of agricultural products (Trikoesoemaningtyas, Puspitawati, Herawati, 2009)

A study was conducted in the village of Hambaro to understand how the gendered nature of networks linking women to markets effect women participations on marketing of indigenous vegetables.

## METHODOLOGY

The study was conducted at Hambaro Village, Sub-District of Nanggung, Bogor-West Java Province during July-November 2008. A total of 10 women were selected purposively as respondents. The respondents are part of the group of women in the Bhakti Tani Women Farmer Group. A qualitative methodology was applied, consisted of;

1. Focus groups discusion with members of women farmers to identify formal and informal markets for vegetable products, as well as source of products.
2. In depth interviews with women who actively market vegetable product as well as representatives of different sectors/groups identified in market.
3. Surveys at markets and households in local communities to assess the differences in current market prices commanded by member within a group.
4. Map gendered spaces of production and gendered spaces in the market to identify links between two physical spaces (harvest and sale).
5. Identify and characterize networks, coalitions, or associations facilitating access to market. Describe their origin.

## RESULTS AND DISCUSSION

### Characteristics of Respondents.

The respondents were part of the group of women in the Bhakti Tani Women Farmer Group. The average age of the respondent was 39.3 year , the youngest was 26 year old and the oldest was 60 year old. The average age of the husband was 46.9 year old with the youngest age of 26 and the oldest was 70 year of age. The women are in the productive age group. One woman was head of the household (widow). The average education of the women was 7.1 year and only two graduated from highshcool. The average education of the husband was similar.

The average member household of the respondent was 6 and was classified as medium size household. The occupation of head of household are farmer (33.3%), owner of small business (22.2%), trader (11.5%), labour (11.1%), employee (11.1%). The average income of the household was Rp 1 509 280/month which 61.7% was contributed by the husband and 38.7% wass contributed by the wife.

Most respondents are members of the women farmer group and are member of the newly formed saving and loan group since 2008. Two respondents recently joined the saving and loan group in 2009. The most respondents have had training in vegetable production from the SANREM project

The study was located in West Java where the patriarchy system still be applied dominantly by men in a productive sectors. Based on the baseline findings that relate to the experience in vegetable production and marketing, it is concluded that the women's involvement in dry-land agriculture is in minimum level (12.1. %), mostly their involments are concerning rice culture. Men dominated the access and control over resources needed for vegetable production. Whereas, only small share of women in having access towards resources ( 13.0 % of women have access over land; 12.9 % of women have access to credits; and 3.3% of women have access to production inputs). Consistent with that findings, it is shown that is only 12.6 percent of women farmers have access to market and market informations. Based on this fact, there is small group of women in marketing network that we can start with (Trikoesoemaningtyas, Puspitawati, and Herawati, 2009).

Vegetable production is done as supplementary farming activity. Most agricultural products are used for consumption and the surplus are sold around the village or to the middlemen. Women in Hambaro do not customary involve in marketing of produce. Based on our baseline study, marketing of produce are generally done by men. The respondents, women who belong to the Women Farmer Group Bakti Wanita Tani, are the few who are involve with marketing produce. These women first involve in marketing when they were introduced to planting jasmine 16 years ago. The women mostly planted jasmine in their garden and sold directly to the buyer who cem from the capital, Jakarta. This practice is no longger sustained because the buyer did not increase the price/buy at the same price for the past 10 years.

The women respondents have different reasons for their direct involvement in vegetable production and marketing. The reasons include economic reason to support family income, to have fruit and vegetables for the childern, follow neighbours or have underutilized land. Factors affecting women's choices of crops grown, can be summerized as follows.

- Women have motivation to work because it is driven by the demands of family economic needs, and also the feeling of capability of women themselves in doing productive activities.
- Women have spare time to be allocated for productive activities close to home (home garden/*pekarangan*)
- Wome were introduced to the cash crop of Jasmine and Guava by relatives from the big city (Jakarta).

- The leader of the women farmer group is the local extention person who attended meetings with other local extention and government extention workers in the District.
- Goverment or NGO introduce new crops to the famers through the farmers' group that dominated by male farmers.

The types of vegetables and fruits produced and sold by women in the group include yard bean, bean, cucumber, gnemon, corn, tomato, bamboo shoot, mustard leaves, cassava leaves, and recently katuk (Table 1). When the harvest is small the vegetables are sold in bunches/bundle directly to consummers or to neighbourhood stores (warung). When the harvest is large the women sell their vegetable to the middlemen (tengkulak).

Table 1. Types of Vegetables and Fruits marketed by women.

| Type of Vegetables/ftuit | No of respondends | Price |
|---|---|---|
| Bean | 1 | Rp 1250/kg |
| Chilly peper | 2 | Rp 5000/kg |
| Gnemon | 1 | Rp 10 000/kg |
| Corn | 1 | Rp 8000/kg |
| Guava | 4 | Rp 1000-2000/kg |
| Yard bean | 3 | Rp 1200- 2000/kg |
| Katuk | 6 | Rp 1200/kg<br>Rp 500/bundle ( 5 bundle /kg) |
| Gnemon seed | 2 | Rp 15 000/kg |
| Papaya | 1 | Rp 1000/kg |
| Mustard leaves | 1 | Rp 1250/kg |
| Cassava leaves | 1 | |
| Cucumber | 3 | Rp 1000/bag |
| Tomato | 1 | |
| Sweet potato | 1 | Rp 1000/kg |

Table 2 describes the segregated spaces in farming system activities, where women's spaces related to activities closed to home, narrowing scope areas/ spaces, slow/ low mobility, limited access to agricultural technology and informations, and mostly having access to informal market (arround neigbourhood). On the other hand, men's spaces related to activities far away from home, wide-openned scope areas/ spaces, fast/ high mobility, high access to agricultural technology and informations, and mostly having access to formal market.

Table 2. Men and women's spaces (physical areas) in the production and processing of fruit and vegetable products destined for market.

| NO | DESCRIPTION | MEN | WOMEN |
|---|---|---|---|
| 1 | **Production** | | |
| | Roles | Planting, harvesting | Planting, maintenance and harvesting |
| | Scope of physical areas | Village | Hamlet |
| 2 | **Processing** | | |
| | Roles | No processing | No processing |
| | Scope of physical areas | High access to agricultural technology and informations | Limited access to agricultural technology and informations |
| 3 | **Marketing** | | |
| | Roles | Marketing agricultural producee to the formal market | Selling vegetables to neighbour and neibhbour market. |
| | Scope of physical areas | Very large, to formal market and even out of town | Limited mostly informal to neigbourhood |

## Women Market Networks

The term network is commonly utilised in social sciences to describe technological relations, economic forms, political structures and social processes. Space and times are also constructed within network (Murdoch, 1998, pp. 359). Network incorporates with social capital that Lin (2001,55) defined as "the resources embedded in one's social network and how access to and use of such resources benefit the individual actions" (Turner, 2007, pp. 409).

Access to market for agricultural products is open to both men and women. For the village of Hambaro, the access is open to everyone. The market for vegetable in Hambaro consists both of formal and informal market. The informal markets of vegetables sold by women are the neighourhood store/warung or the neighbour directly. The closest formal market for the women is the one tin he other subdistict (Leuwiliang). The only network linking the women in Hambaro with formal market is through the middle men. Only a small number of women in Hambaro use the access to market their products. Our respondents belong to this group. These women have access to capital (in this case through saving and loans) and are highly motivated to develop network with middlemen or with retailers.

Most niches in the market is under the control of men. The network that the women use to sell vegetables and Guava are male dominated. In the closest major market in Leuwiliang only small number of women occupy niches in the market mostly selling herbs. Men control most of the niches in the market, most act as wholesellers for buyers from Jakarta or other big cities. Women only sell as small retailer or sell vegetables in the neigbourhood stores (warung). All nodes in the marketing network of vegetables and fruit/guava are dominated by men (Figure 1 ).

Most agricultural products are use for consumption and the surplus are sold around the village or to the middlemen. However, the case is different for Guava. The farmers in Hambaro planted Guava solely for commercial purposes to sell the product to the market. During peak seassons, the main buyers (pelanggang/langganan) from the big cities of Jakarta, Surabaya and Bandung come to Hambaro. During regular seassons, the farmers sell to the middlemen.

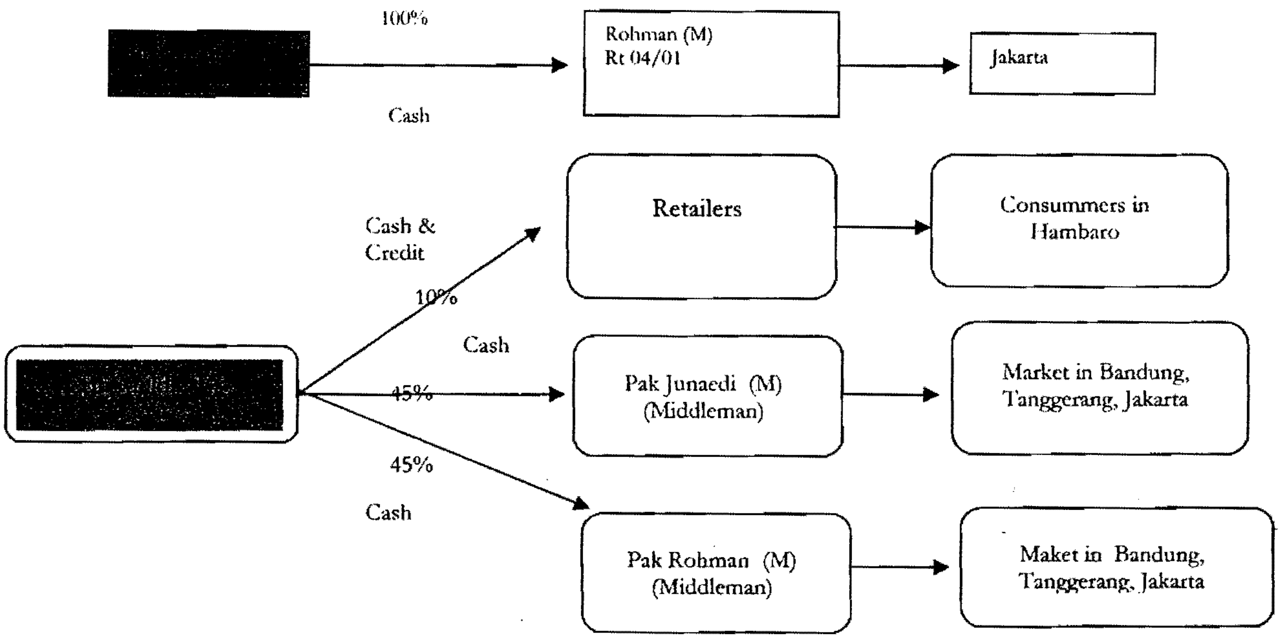



Figure 1. Market Networks of Two Women Respondents in Hambaro for Guava

In most cases, when the marketing of vegetable involve middlemen, then the price is dicided by the middleman. The middleman who come to the village from other village or from the same village act as source of information for price and demand of the product. Women and men obtain the same price when they sell the same product to the same middleman, as is the case of Guava. Men may get higher prices because they can go directly to the market but when men use the same network as women, they obtain the same price as women.

Most women do not negotiate obstacle to market, especially in guava. Most women who sell guava also do not negotiate for price, they receive the price as set by the middlemen who are mostly men. Women negotiate only on the term of payment. In the case of katuk, the women group face a problem in negotiating price with the middleman because the limited scale of production. The women negotiate this obstacle by choosing to sell the vegetable directly to the consumers/retail which they obtained higher price than offered by the middlemen (Figure 2) (Pink color represents woman seller/ buyer, while yellow color represents man buyer/ seller).

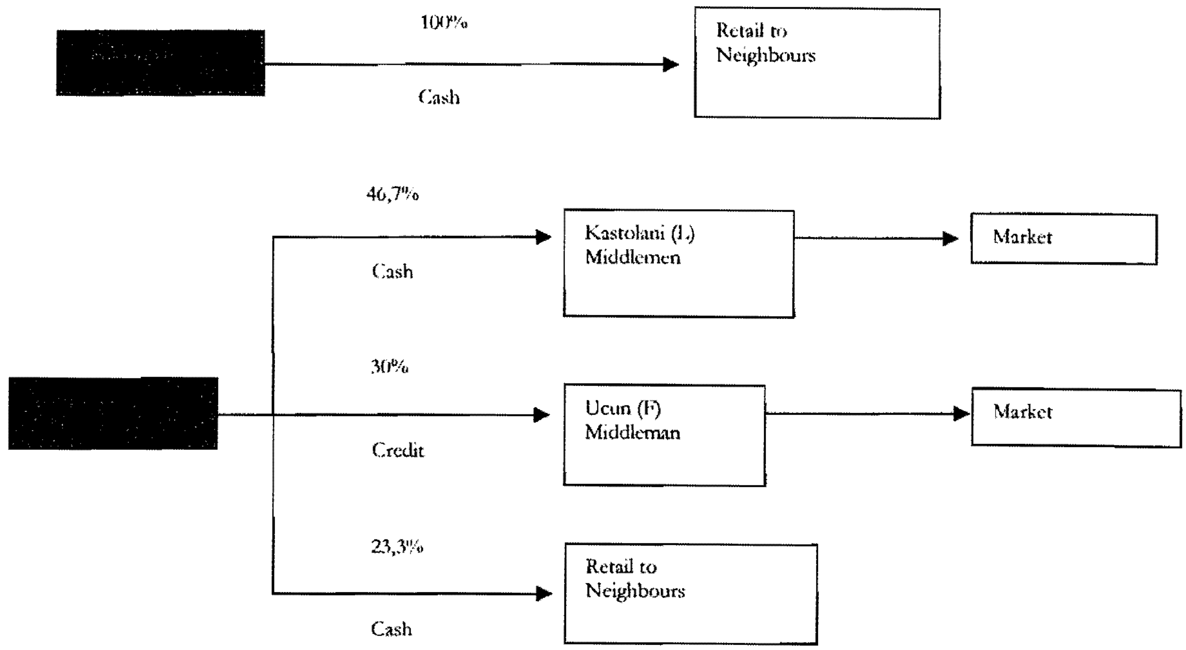
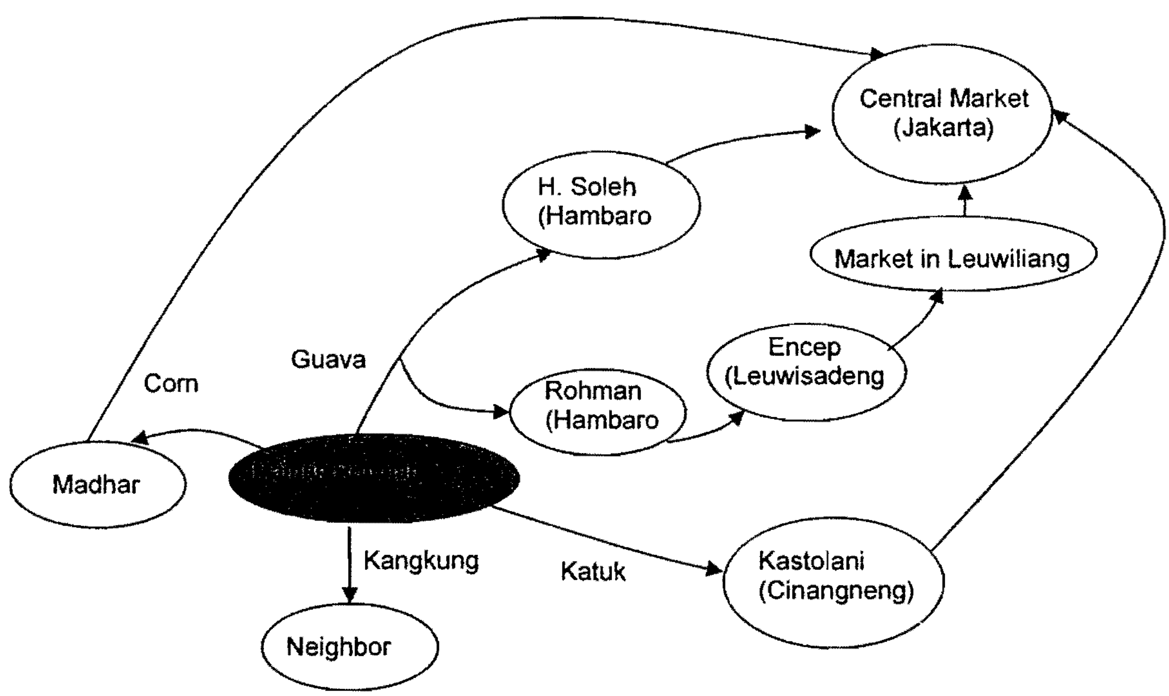



Figure 2. Market Networks of Two Women Respondents in Hambaro for Katuk

Figure 3 presents women in marketing with mixed vegetables and fruits (Pink color represents woman seller/ buyer, while yellow color represents man buyer/ seller).



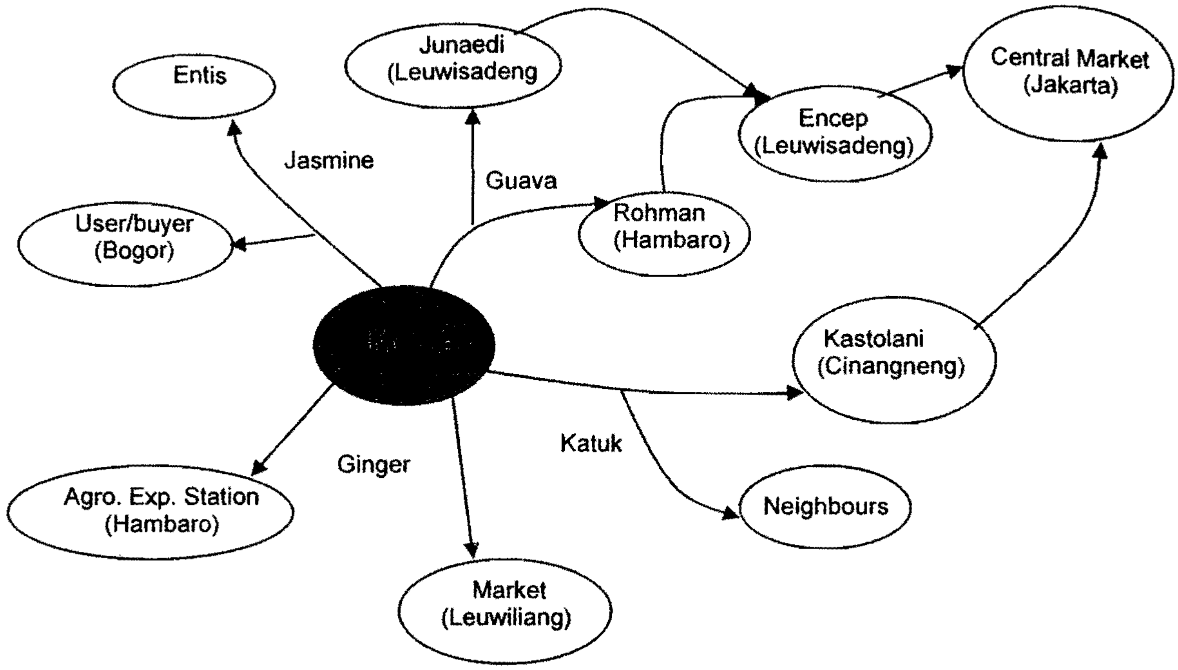



Figure 3. Market Networks of Two Women Respondents in Hambaro for Mixed Vegetables and Fruits.

The ability to penetrate market is determined by many factors. Customarily, social class interacts with gender in determining the bargaining power and penetration to market of agricultural products. The economic factor is the main factor affecting a person ability to penetrate the marketing system. With capital and land, a person can directly sell or buy agricultural products. In the studied group, the women were able to sell their agricutlural products to the middlement or directly act as retailer to sell the product (vegetables and Guava) to local consummers/neighbours.

The source of power of men is from the network between men and the middlemen that has been established for a long time. In addition men has institutionalized farmer group for a long time and has access to capital. The source of power of women is mainly from family networking and supports, specificly for the marketing of guava and katuk. The other source of power is from the newly formed networking by the local women. However, this source of power is still very weak and needed attention from the local leaders to improve and sustain the coalition and network

The coalition and network arise naturally without intervention. The coalition/network arise when the women feel the need to develop coalition/network out of economi nessecity. The coalition became more permanent and sustained when these women were organized into formal institution, a women farmer group "Bhakti Wanita Tani" ( The Dedication of Women Farmers). The women in this group gained the support of the men in the family to be actively involve in vegetable production and marketing, The cooperation between men and women in the agricultural production will increase the benefit for generating income for the family. For example, the husbands of the women who plant katuk helped in land prepation and one husband helps in marketing katuk.

## CONCLUSION

The conclusions of this study are:

1. Only a small number of women in Hambaro use the access to market their products.
2. All nodes in the marketing network of vegetables and fruit/guava are dominated by men.
3. Men and women obtain the same price when they use the same network.
4. Most women do not negotiate for price only on the term of payment.
5. Women who are actively participated in marketing are more confidence in negotiating obstacles in marketing by selling directly to consumers/retail and obtained higher price than from middlemen as in the case of katuk.

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Hal 250 - 265