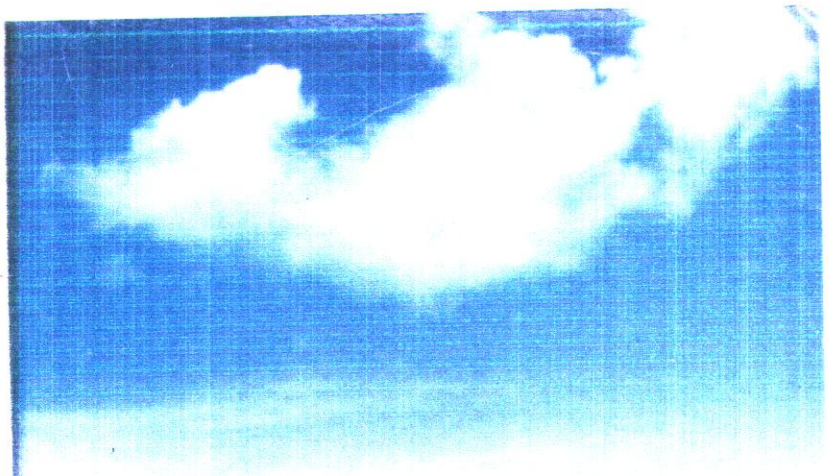


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# Sustainable Agriculture in Rural Indonesia



 Gadjah Mada University Press

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# Sustainable Agriculture in Rural Indonesia

Yoshihiro Hayashi  
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Slamet Hartono  
(Eds.)

Gadjah Mada University Press

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## Preface

Ensuring food security and conserving the environment are subjects of global concern. It is particularly important to evaluate the role of agricultural production in tackling these issues, especially in developing countries. Our study focused on Java, Indonesia, and examined measures for establishing a sustainable agricultural production system while conserving the fragile natural environment. Java has a high population density, and there is much conflict between agricultural development and environmental conservation. The conflict has become more serious since the economic crisis in Southeast Asia started in 1997.

To study the issues, we established four study groups of natural and social scientists, who carried out field research in rural areas of Java. The groups had the following research topics: (1) studies of environmental change and sustainable development; (2) studies of sustainable use of botanical resources on arable land; (3) socioeconomic studies of sustainable development in rural Indonesia; and (4) landscape-ecological studies of sustainable bioresource management systems in rural Indonesia. These four topics are of course interrelated and will be later integrated in this study.

The first group assessed the current status of environmental degradation due to recent land use changes. The main study area was the Cidanau Watershed in West Java. Land use changes were analyzed by using remote sensing and GIS, and examples of environmental degradation such as water shortage, soil erosion, and eutrophication of lakes were measured in a field survey. The group proposes a system of sustainable land use and integrated basin management through the improvement of infrastructure for agricultural production.

The second group identified local botanical resources and evaluated multiple agricultural functions for sustainable resource use. It focused on locally distributed botanical resources, evaluated their traditional uses, and investigated the possibility of introducing biotechnology into improvement of botanical resources. In particular, it studied the genetic diversity of plants grown in traditional cropping systems, varietal differences in shade tolerance, and the relationships between shade tolerance and photosynthetic characteristics.

The third group studied the social structure supporting agricultural production, and proposes an institutional framework of rural society that guarantees environmentally friendly sustainable development based on an understanding of recent changes in social structure. It presents a way to overcome the problems caused by modernization in agriculture and offers a view of a new sustainable society. The group combined macro-analysis of the rice marketing structure with micro-analysis of the farm household economy, focusing on selected hamlets in Central and West Java.

The fourth group investigated the possibility of restructuring the rural

ecosystem, including the introduction of a material cycling system for bioresources such as plants, animals, fish, and biological wastes. It focused on the integration of landscape elements and proposes a new, sustainable bioresource use system at the local level. Landscape structure and functions were investigated on different spatial scales, and a detailed material flow in hamlets based on nitrogen flow is presented. The group suggests that the reconstruction of a sustainable system can be achieved only by restructuring the watershed-based biomass recycling system.

This study was conducted with the support of the Japan Society for the Promotion of Science and the Directorate-General for Higher Education of Indonesia. It started five years ago (1998) as a Core University Program in applied bioscience. The Graduate School of Agricultural and Life Sciences of The University of Tokyo and Bogor Agricultural University have played key roles in Japan and Indonesia, respectively. Many researchers have joined this study from other partner universities: Tohoku University, Utsunomiya University, Kyoto University, Okayama University, Kyushu University, and Kobe University (Japan); and Gadjah Mada University, Padjadjaran University, Bandung Institute of Technology, and the National Atomic Energy Agency (Indonesia). We would like to express our gratitude to those who helped us in conducting this study.

This book has been compiled to show the progress of the Core University Program, which will continue for another five years. We selected outstanding papers by the four groups for inclusion; these papers have already been published in academic journals. We hope that this book will increase the reader's understanding of the current state of rural Indonesia, and that it will thus help to establish sustainable rural societies in highly populated developing countries, in particular Indonesia.

February 15, 2003

Editors



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## Table of Contents

Preface .....	v
<b>I Studies on Environmental Changes and Sustainable Development</b>	
I-1 Water Quality Forecast Model of Cidanau Watershed, Indonesia, for Watershed Management Planning ..... <i>Tasuku Kato, Hiroaki Soumura and Akira Goto</i>	3
I-2 A Numerical Study to Evaluate the Effects of Plant Canopy on Daily Evapotranspiration: Estimation of Evaporation in Cidanau Watershed ..... <i>Satyanto K. Saptomo, Yoshisuke Nakano, Tomokazu Haraguchi and Masaharu Kuroda</i>	15
I-3 Detecting Land Use Change using Remote Sensing in Cidanau Watershed, Indonesia ..... <i>Satoshi Tsuyuki and Aki Baba</i>	27
I-4 Applicability of Wavelet Transform to Evaluation of Runoff Property in Cidanau River Basin, West Java ..... <i>Koshi Yoshida, Akira Goto and Taichi Shimizu</i>	41
I-5 Watershed Modeling of Cidanau River Basin, Banten Province, Indonesia ..... <i>Arien Heryansyah, M Yanuar JP and Akira Goto</i>	49
I-6 Water System Management and Irrigation Practices of Traditional Paddy Farming - Utilization of Small Stream Runoff for Irrigation ..... <i>Tetsuro Fukuda, Masaharu Kuroda, Yoshisuke Nakano and Shinichi Takeuchi</i>	57
I-7 Individuality of Farmland Consolidation ..... <i>Masaya Ishikawa, Yohei Sato and Budi Indra Setiawan</i>	65
I-8 Effect of Gypsum Application on Erodibility of An Acid Subtropic Soil ..... <i>Taku Nishimura</i>	77
I-9 Studies of Manure, Latex Natural Rubber and Blotong for Decreasing Soil Erosion and Runoff in Indonesia Latosol Soil .... <i>Sukandi Sukartaatmadja, Yohei Sato, Eiji Yamaji and Masaya Ishikawa</i>	85
I-10 The Evaluation of River Runoff Using Tank Model on Different Landuse ..... <i>M.Y.J. Purwanto, Harmailis, Sutoyo and Akira Goto</i>	97

<b>II Studies of Sustainable Use of Botanical Resources on Arable Land</b>		
II-1	Changes in the Performance of the Homegardens in West Java for Twenty Years (1) Changes in the Function of Homegardens .. <i>Naohiro Kubota, Herri Y. Hadikusumah, Oekan S. Aboellah and Nobuo Sugiyama</i>	111
II-2	Changes in the Performance of the Homegardens in West Java for Twenty Years (2) Changes in the Utilization of Cultivated Plants in the Homegardens .. <i>Naohiro Kubota, Herri Y. Hadikusumah, Oekan S. Abdoellah and Nobuo Sugiyama</i>	123
II-3	Cultivation of <i>Amorphophallus paeoniifolius</i> (Dennst.) Nicolson in Home Gardens in Java .. <i>Edi Santosa, Nobuo Sugiyama, Adolf Pieter Lontoh, Sutoro, Shoko Hikosaka and Saneyuki Kawabata</i>	139
II-4	Morphological and Nutritional Characterization of Elephant Foot Yam in Indonesia .. <i>Edi Santosa, Nobuo Sugiyama, Muhamad Achmad Chozin, Adolef Pieter Lontoh, Sugeng Sudiarto, Saneyuki Kawabata, Shoko Hikosaka, Sutoro and Ahmad Hidayat</i>	149
II-5	Mutation Breeding in Sorghum in Indonesia .. <i>Hoeman Soeranto, Tomoko M. Nakanishi and Mirzan T. Razzak</i>	159
II-6	An Effect of Phosphate Fertilizer on Accumulation of Na, Mg, K and Ca in Shallot Plants ( <i>Allium ascalonicum</i> L) .. <i>June Mellawati, Jun Furukawa, Keitaro Tanoi, Yoshitake Hayashi, Hiroshi Iikura, Natsuko Ikeue and Tomoko M. Nakanishi</i>	167
II-7	Obtaining Induced Mutations of Drought Tolerance in Sorghum.. <i>Soeranto Hoeman, Tomoko M. Nakanishi and Mirzan T. Razzak</i>	175
<b>III Socio-Economic Studies of Sustainable Development in Rural Indonesia</b>		
III-1	Econometric Analysis of Indonesian Rice Economy and Policy: The Market Fundamentalism as the cause of the 1997-98 Rice Crisis .. <i>Hiroshi Tsujii and Dwidjono H. Darwanto</i>	185
III-2	Global Competitiveness of Indonesian Rice .. <i>Masyhuri and Seiichi Fukui</i>	205



✓ III-3	Risk and Rice Farming Intensification in Rural Java ..... <i>Seiichi Fukui, Slamet Hartono and Noriaki Iwamoto</i>	217 ✓
✓ III-4	Optimal Cropping Pattern under Some Restrictions in Java Island, Indonesia ..... <i>Any Suryantini, Hironori Yagi, Akira Kiminami and Noriaki Iwamoto</i>	235
✓ III-5	IPM Technology, Pesticides Use and Rice Yield ..... <i>Irham, Keiji Ohga, Naoya Takada and Kensuke Sugiura</i>	249
✓ III-6	Efficiency of Rice Distribution between Margokaton Village and Yogyakarta ..... <i>Jamhari and Hitoshi Yonekura</i>	259
✓ III-7	Economic Crisis and Social Safety Net Programs at an Upland Village in West Java ..... <i>Kosuke Mizuno and Siti Sugiah Machfud</i>	283
✓ III-8	A Multinomial Logit Analysis of Agroforester's Perception of Plot-wise Soil Fertility and Soil Mining - Fast Expansion of Leaf Banana in a Mountainous Village of West Java- ..... <i>Hiroshi Tsujii and Ageng S Herianto</i>	295
✓ III-9	Comparative Analysis Of Farm Management and Risk: Case Study in Two Upland Villages, West Java ..... <i>Sri Hartoyo, Kosuke Mizuno and Siti Sugiah Machfud Mugniesyah</i>	317 ✓
✓ III-10	Gender Relations Among Upland Farming Households: The Case of Kemang Village in West Java, Indonesia ..... <i>Siti Sugiah Machfud Mugniesyah and Kosuke Mizuno</i>	331 ✓
✓ III-11	Gender in Sustainability of Local Organizations and Institutions (A Case In Two Upland Villages of West Java) ..... <i>Siti Sugiah Machfud Mugniesyah and Kosuke Mizuno</i>	345 ✓
<b>IV</b>	<b>Landscape-Ecological Studies of Sustainable Bio-resource Mana- gement Systems in Rural Indonesia</b>	
IV-1	Toward Restructuring for Sustainable Regional Ecosystems in the Humid Tropics ..... <i>Koji Harashina, Kazuhiko Takeuchi, and Hadi Susilo Arifin</i>	369
IV-2	Integrating the Value of Local Tradition and Culture in Ecological Landscape Planning in Indonesia ..... <i>Hadi Susilo Arifin, Nurhayati Hadi Susilo Arifin, and I Gusti Putu Suryadarma</i>	391

---

IV-3	Ecological Planning of a Sustainable Rural Landscape in Indonesia .....	403
	<i>Hadi Susilo Arifin</i>	
IV-4	Human Ecological Study for Sustainable Development in a Rural Community of West Java, with Special Reference to Microdemography and Child Nutrition .....	411
	<i>Makiko Sekiyama and Ryutaro Ohtsuka</i>	
IV-5	Growth Pattern and Nutritive Values of Common Carp Cultured with Waste of Bean Sprout in Sukajadi Village, Bogor District ...	421
	<i>Rumaida Agustina, Clara M. Kusharto, Drajat Marianto and Ryutaro Ohtsuka</i>	
IV-6	Coping with Environmental Degradation In the Context of Watershed: Human Ecological Perspective .....	429
	<i>Oekan S. Abdoellah</i>	
IV-7	Biophysical Evaluation of the Upper Citarum Watershed: An Overview Methodology and Application .....	439
	<i>Chay Asdak, Kazuhiko Takeuchi, and Hitoki Takada</i>	
IV-8	Non-forest Fuelwood Acquisition and Transition in Type of Energy for Domestic Uses in the Changing Agricultural Landscape of the Upper Citarum Watershed, Indonesia .....	449
	<i>Parikesit, Kazuhiko Takeuchi, Atsushi Tsunekawa, Oekan S. Abdoellah</i>	



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### III-10 Gender Relations Among Upland Farming Households: The Case of Kemang Village in West Java, Indonesia

*Siti Sugiah Machfud Mugniesyah and Kosuke Mizuno\**

#### I. Introduction

Scholars of Sundanese Society, West Java, Indonesia have a general perception of Sundanese women as having relatively high status. For example, Soepomo said, "The status of husbands and wives in marriages is of the same level, in daily affairs as well as in access to property, and neither parties need legal assistance. Both parents have legal control over their children, and both parties can have legal support in the case of divorce." The kinship system of the Sundanese community is based on the parental, bilineal or bilateral principal (Soepomo, 1961).<sup>1</sup>

However, development programs have been gender-biased. The involvement of women in Government programs has been at a low level. In our research at the Conservation Project and the National DAS Cimanuk Management, in the area of the Cimanuk River in West Java in 1996, women's involvement in the Land Rehabilitation and Soil Conservation Program (*Reboisasi Lahan dan Konservasi Tanah* or *RLKT*) as well as in the management of the Village Seed Garden (*Kebun Bibit Desa*) was particularly weak.

Many studies reported women's marginalization in the process of agricultural development such as the implementation of BIMAS program, (an agricultural development program intended to defuse high yielding rice varieties in Indonesia) (White 1976), and recommended women's involvement in the development programs in order to prevent this marginalization (Sajogyo 1983).

This weak access of women to development programs was brought about by the perceptions held by the program officers of *RLKT* or village officers who were almost always only male. These latter stated that participants in the Natural Resource Demonstration Unit (*Usaha Percontohan Sumberdaya Alam*) should be the heads of households, who were mostly males. They also said that in general males did the production activities of the programs, because the work was too heavy for women. The village officers who chose the male participants, (consisting of farmers, formal and informal leaders,) held the same perception (Mugniesyah et.al, 1996).

This study will attempt to show the general perception of Sundanese

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women's status by shedding light on gender relations and role of women in agricultural and household activities, especially considering the decision-making process based on field research carried out at an upland area village, Kemang Village, Cianjur District, West Java in 1998 – 1999<sup>2</sup>. It has been assumed by development agencies that in upland agriculture, including cultivation at mountain slopes, the main activities have been carried out by males because of the harsh working conditions.

This study will pay special attention to gender relations. According to Agarwal (1994), gender relations refers to power relationship between women and men that are revealed in a range of practices, ideas, and representations, including the division of labor, roles and resources between women and men. Gender relations are constituted by these practices and ideologies in interaction with other structures of social class hierarchy and they are considered as largely socially constructed, and as variable over time and place. Furthermore, although gender relations are defined as relations between women and men, gender hierarchies also influence and structure relations between individuals of the same sex.

Based on the above explanation and by using the techniques of gender analysis (Connel, 1988; Feldstein and Poats, 1990; Moser, 1993; Parpart et al., 2000), this study is concerned with the ways in which gender relations influence the economies of upland farmer households, while paying special attention to the status of women in the households.

This study will show that women's access to the development programs at the research sites is weak, and will show that women have contributed to production in both upland cultivation as well as rice field cultivation from the point of decision-making and labor allocation in the context of gender relations. If it can be shown that women have indeed contributed to production in upland cultivation in this roles in decision-making and labor allocation, then the reasons adduced by the development agency for excluding women from their programs will be denied.

This study will attempt to show the special factors of the "bilineal" Sundanese kinship system, women's access to land, and their value in gender relations of households as factors supporting the women's larger contributions both in labor allocation and decision making.

## **2. Research Site and Government Program**

### **2-1 Research site and research methodology**

Kemang Village (*Desa*), where field research was conducted, is located in the southern part of Cianjur District (*Kabupaten*), Province of West Java (*Propinsi Jawa Barat*). It lies at an elevation of between 400-800 meters above sea level, and the topography ranges from slightly sloping, hilly, to steep sloping. The average rainfall is around 1,945 mm/year, and the area experiences about 129 rainy days a year (Anonymous, 1997). The village consists of 22 hamlets that are distributed in



3 sub-villages (*Dusun*). Dusun I, Dusun II and Dusun III have 7 hamlets, 5 hamlets and 10 hamlets respectively. As an upland area, there are two land types that are important to farmers: wet rice field (*sawah*) and up-land dry agricultural land (*pasir*). The total village area is around 2,518.6 hectares (ha), and quite a large area is National Forest (*Perhutani*) Land covering around 1040.6 ha. There are 87.8 ha of wet rice field and 878.6 ha of dry agricultural land; representing around respectively 3.5 per cent and 35.9 per cent of the total area of the research village. The total village population was 4,335 people, among whom females slightly outnumbered males, the former representing 50.7 percent in 1998, and number of households was 1,040 (Anonymous, 1998). The major occupations include farmers of wet rice fields and up lands, agricultural wage laborers, traders, artisans, transportation workers and so on.

There are several methodologies used in this study: small census, focused group discussions, household surveys with questionnaires, and participant observations. This paper mainly used the results of household surveys with questionnaires. The survey was mainly conducted in 1998 and 1999 at two hamlets, Beber and Cikupa, which are situated at Dusun II. However they are located at some distance from each other. The questionnaires covered many aspects related to intra-household dynamics; observations were conducted continuously, especially of the various activities performed by the surveyed household members. In 1998, agricultural management data were collected, and in 1999, data on off-farm activities as well as daily household activities were collected. We use data from both 1998 and 1999 in this paper.

The number of respondent households was 41 at Beber hamlet, and 21 at Cikupa hamlet. In order to understand the gender relation in the households, we chose households that had wife and husband. All these 62 households answered that their household heads were the husband<sup>3</sup>. In reality, many female-headed households that had no husband were found in the first stage of our small census survey; 17% of the households among the surveyed households in the small census were female-headed households that had no husbands. These female-headed households were excluded from this study. Average size of agricultural land owned by 62 surveyed households was 1.06 ha consisting of 0.14 ha of wet rice field and 0.92 ha of dry up-land. Among surveyed 62 households, 8 households don't own their land.

## 2-2 Government programs and women's participations

The research village has had a lot of development programs introduced by the Government. A lot of organizations were set up under Government initiative during the Soeharto Administration (1967-1998). The research site is situated in a forest area, so social forest programs and organizations are important.

Social Forestry Programs were introduced to Kemang Village in 3 stages in 1988, 1991 and 1992. The area covered by the programs were land of *Perhutani*

(National Forest Ltd.) that was distributed to Kemang Village at a rate of about 54 ha, 25 ha and 19 ha respectively. The number of participant households in the programs was 216 in 1998, 100 in 1991 and 76 in 1992. The participant farmers were organized in the Farmer Forest Group (*Kelompok Tani Hutan*). In this program, women were excluded institutionally. First, the land for the programs was distributed only to male-headed households. Female-headed households were excluded. Heads of households took part in the Farmer Forest Group, and all heads of participant households were male. Extension workers thought that the household heads, namely the husbands should disseminate the knowledge and technology given by the Farmer Forest Group to their wives. However, only a small percentage of women felt that they took part in the Social Forestry program and the Integrated Forest Village Community Development (*PMDHT*) according to our survey (Table III-10-1).

Table III-10-1 shows that none of women was involved as a member of Government program called Backward Villages Development Program (*IDT*) that was introduced by the Government in 1994-1997 to develop micro credit programs in the region. Table III-10-1 demonstrates that women's participation has been weak especially in agricultural extension programs and organizations.

Table III-10-1 Surveyed households members' participations in various government programs and organizations in Kemang Village by sex in 1998 (in per cent)

Items	Men	Women
a. Development Programs		
1. Social Forestry ( <i>Perhutanan Sosial</i> )	35.2	8.5
2. Forest Farmer's Group ( <i>Kelompok Tani Hutan</i> or <i>KTH</i> )	9.7	0.0
3. Integrated Forest Village Community Development ( <i>Pembinaan Masyarakat Desa Hutan Terpadu /PMDHT</i> )	15.8	3.0
4. Backward Village Development Program ( <i>Inpres Desa Tertinggal</i> or <i>IDT</i> )	9.7	0.0
b. Social Programs		
1. Family Welfare Movement ( <i>Program Kesejahteraan Keluarga</i> or <i>PKK</i> )	0	3.0
2. Integrated Health Posts ( <i>Pos Pelayanan Terpadu/Posyandu</i> )	0.6	33.9
3. Family Planning ( <i>Keluarga Berencana</i> )	3.0	52.7
c. People Initiated Organizations		
1. Rotating Credit Group ( <i>Arisan</i> )	7.9	18.2
2. Al Qur'an Chanting Group ( <i>Pengajian</i> )	51.5	54.5
3. Cooperative ( <i>Koperasi Wana Mukti</i> )	24.2	15.8
d. Village Administrative Organization		
1. Village Council Body ( <i>Lembaga Musyawarah Desa</i> or <i>LMD</i> )	1.2	0.0
2. Village Community Resilience Body ( <i>Lembaga Ketahanan Masyarakat Desa</i> or <i>LKMD</i> )	7.3	0.0

Source: Based on our field research in September and October 1998.



The Government involved women only in the program for family health and nutrition. Table III-10-1 shows that the family planning program and especially the Family Planning and Integrated Family Service (*Posyandu*) Program had high level of women's participations. Conversely village administrations had weak women's participation.

In contrast to the Government program, the local people-initiated organizations had involved a lot of women. A Qu'ran chanting group (*pengajian*) and a rotating credit group (*arisan*) had considerable women's participation. Cooperatives that had been activated at the initiative of a prominent local trader in 1998, in the atmosphere of reformation following President Soeharto's resignation, had relatively good women's participation, especially in the small-scale consumption credit programs. This local inhabitants-activated Cooperative (*Koperasi Wana Tani*) was set up under the Social Forestry Program before President Soeharto stepped down in 1998, but was not active before the prominent trader activated in 1998.

The comparatively weak involvement of women in the Government programs is apparent. When we asked the village officers about the low level women's involvement in the Government-sponsored agricultural and forestry programs, they answered that household heads should take part in the programs. According to them, working conditions in agriculture and forestry are harsh, so in general males were mainly engaged in the task of cultivation. These perceptions allowed for little involvement of women in the Government extension programs. For example, most of the women who participated in the focused group discussion said that they did not know the field extension workers (*Petugas Penyuluhan Lapangan, PPL, Petugas Kehutanan Lapangan, PKL*) or field forestry extension workers, and/or *Petugas Lapangan Kehutanan (PLP)* forestry extension workers.

According to our observations, no women in the village were involved in the training program for making banana chips (*keripik pisang*) and *gula semut* (granular brown sugar). The program was implemented in 1998, and women had been making the chips for financial gain in the village.

We can suppose that the apparent weak participation of women in the Government programs has been brought about by the village officers' perception that the conditions for forest and farm labors are harsh and difficult for women to carry out, and that the heads of households, mainly male, are the main actors in this production. In contrast, the people's organizations initiated by local people are involving many women.

In the following parts of this paper, we will consider the village officers' perceptions, especially with regard to labor allocation and decision-making.

### 3. Labor Allocation at the Research Hamlets

#### 3-1 Labor allocation for the agriculture

Table III-10-2 shows the total labor allocation of the surveyed farm households in wet rice farming (rainy and dry seasons) and *huma* (upland rice) farming in 1998, according to the numbers and percentage respectively. *Huma* paddy is cultivated on the sloped dry land with a production period of around 6 months or about 2,234 working hours. On the other hand, wet rice cultivation on the relatively flat rice fields needed 1,987 hours in the rainy season and 1,826 hours in the dry season.

Table III-10-2 Average of total labor input per hectare of land in rice farming in Kemang Village, by type of labor, land, season, and sex in 1998  
(in hour and per cent)

Type of Land and Season	Men		Women		Total
	Family <sup>2)</sup>	Outside <sup>2)</sup>	Family <sup>2)</sup>	Outside <sup>2)</sup>	
1. Rice field					
Rainy Season	626 (32)	242 (12)	486 (25)	633 (31)	1987 (100)
Dry Season	565 (31)	257 (14)	415 (23)	589 (32)	1826 (100)
2. Dryland ( <i>Pasir</i> )	972 (44)	200 (9)	798 (36)	264 (12)	2234 (100)

Source: Based on our field research in November and December 1998

Note: 1) n = 62 households ; the number in parenthesis shows percent

2) Family = Labor Within Household; Outside = Labor Outside Household.

Farmers on Java Island tend to hire a lot of paid workers. This research site is no exception. The surveyed farmers hired more females than males. Anyway, the contribution of women's labor was quite apparent. Almost half the labor input was provided by women. Women's labor contribution to farming was more than half that for the wet rice farming, and slightly below a half for dry land *huma* farming, even though *huma* cultivations have more harsh labor conditions than wet rice farming. Table III-10-3 shows the percentage of working hours spent in each farming activity in 1998.

This table contradicts the village officers' perception that the harsh conditions on the mountain slope prevent women from working there. The surveyed women engaged in the 'heavy tasks' in *huma* production, such as logging, tree burning, land preparation and cleaning. In these activities, women contributed around 13 per cent of the total working hours for one time cropping, whereas males contributed around 21.1 per cent of one time cropping. Moreover, this study proves that women contributed to the weeding of the dry land, which is in fact also not an



easy task for women, as the structure of the dry land is quite different from that of the rice field. In weeding activity, the women's time allocation of around 163 hours is as high as that of males. The women's time allocation in pest controlling of around 130 hours (6 percent) was also the same as men.

Table III-10-3 Average working hour in rice farming per crop of rice, per hectare among surveyed households in Kemang Village, by type of land, activity and sex in 1998 (in per cent)

Activity	West Rice Field				Dry Land	
	Rainy Season		Dry Season		Men	Women
	Men	Women	Men	Women		
Logging	-	-	-	-	11.9	3.3
Trees burning	-	-	-	-	3.5	2.2
Land preparing	17.2	0	19.4	0.3	9.8	8.0
Cleaning	-	-	-	-	2.9	3.9
Seedling	2.0	0.7	2.0	0.7	-	-
Planting	1.1	8.9	1.2	9.5	-	-
Dibbling	-	-	-	-	3.2	6.0
Fertilizing	2.8	0.5	2.4	0.5	1.0	1.1
Weeding	1.1	18.5	1.1	12.9	7.5	9.5
Pest controlling	8.4	5.2	8.6	5.3	6.2	5.8
Pest spraying	2.0	1.6	1.6	0.8	-	-
Harvesting	4.4	15.5	4.3	14.1	5.7	8.9
Drying	2.5	4.1	2.5	3.9	0.5	0.3
Transporting	-	-	-	-	1.0	0.6
Milling	2.2	1.1	1.9	1.1	0.1	0.1
Total (%)	43.7	56.3	45.0	55.0	52.5	47.5
Total (WH) (hours)	868	1119	822	1004	1172	1062

Source: Same with Table III-10-2

Note: WH = Working Hour

### 3-2 Time allocation for the other productive activities

The data of productive activity besides farming collected over one month period during November-December 1999 is shown in Table III-10-4. The total working hours in the month was 126.7 hours for women, and 155.5 hours for men. Women engaged in almost all fields of productive activities including wood collecting that was regarded as a male dominant activity by the local people. Only fish raisings and non-farm wage-labor were male dominated activities. The working hours of women for trade were more than males, and the hours for livestock keeping, farm wage-labor, and services were almost the same as that of males.

Table III-10-4 The average productive working hours in one month of surveyed households in Kemang Village by type of activity in 1999 (in hour and per cent)

Activity	Working Hours		Percent (%)	
	Men	Women	Men	Women
1. Rice farming	84.5	68.5	30.0	24.0
2. Fish raising	0.2	0.0	0.1	0.0
3. Livestock keeping	7.9	6.7	2.8	2.4
4. Waged labor	4.1	3.7	1.5	1.3
5. Non-farm waged labor <sup>1)</sup>	9.9	0.0	3.5	0.0
6. Services	4.7	2.3	1.7	1.7
7. Trade	13.1	21.5	4.6	7.6
8. Brown sugar industry	21.5	17.8	7.6	6.3
9. Wood factory management	1.9	0.5	0.7	0.2
10. Wood/Fuelwood collecting	7.7	5.5	2.7	2.0
Total	155.5	126.7	55.0	45.0

Source: Based on our field research in November and December 1999

Note: 1) Including carrying agricultural product (banana fruits and leaves) from the *pasir* (sloping land) to the wholesalers in Beber hamlet.

#### 4. Decision making about agricultural and household income

##### 4-1 Decision making about agricultural activities

The study found that in general, farming households women in upland agriculture were in control of rice production, both in rice fields as well as in upland dry land. As can be seen in Table III-10-5, women took part in decision-making in almost all activities of up-land rice farming as either co-decision-maker or sole decision maker. Usually women made decisions with their husbands. They consulted each other, and decided together. However some important activities, like drying (62.5% households of all surveyed households) and selling (31.1%), were subject to decisions made solely by women. No activities were subject to decisions solely by men. Almost the same tendency appeared for production activities in wet rice farming. Decision making for wet-rice pest control was somewhat male dominated, or in some 57.1 households only husbands made the decisions. On the other hand, for weeding, 36.7% households women alone made the decisions. Generally most of wet rice cultivation activities were subject to decisions made by both parties.

It is interesting to note that women were involved in decision-making in the technological domain; such as fertilizing, pest spraying, and milling. It is also significant that in up-land *huma* farming, women as well as men were also involved in the decision making process for activities that are stereotypically within the male domain; namely land preparation (including tree burning and land



cleaning). This happens because, as already described above, all the farming household members, both men and women, were very much involved in up-land *huma* farming activities, from land preparation to post-harvest activities.

Table III-10-5 The decision making patterns in rice farming among surveyed households by types of land and activities in 1998 (in per cent)

Activity	Wet-Rice Farming			Up-land Dry Rice Farming		
	Husband	Wife	Husband & Wife	Husband	Wife	Husband & Wife
Land preparing <sup>1)</sup>	26.5	10.2	63.3	18.8	0	81.2
Seedling	28.6	16.3	55.1	18.8	0	81.2
Planting	10.0	28.7	61.3	18.8	6.2	75.0
Fertilizing	12.2	16.4	71.4	6.2	25.0	68.8
Weeding	6.2	36.7	57.1	0.0	12.5	87.5
Pest spraying	22.5	8.4	57.1	6.2	6.2	87.6
Pest controlling	57.1	8.4	26.5	18.8	12.4	68.8
Harvesting	26.5	16.4	55.1	0.0	18.8	81.2
Drying	12.2	26.5	57.1	6.2	62.5	31.3
Milling	16.4	22.4	53.2	12.5	6.2	81.3
Selling	21.4	10.2	69.4	0.0	31.2	68.8

Source: Same with Table III-10-2

Note: 1) Land preparing at up-land dry farming includes activities of logging, land cleaning and tree burning.

#### 4-2 Household income

Dry land plays an important role for farming households in Kemang Village, not only in contributing to the staple food such as up-land *huma* paddy, but also in supporting small scale industry among them, i.e. the palm sugar industry which uses the palm liquor that is tapped from palm trees (*Arena pinnata*, sp.). The palm sugar industry, as well as farming, involves couples - husband and wife - with a division of labor where the husband is the tapper and the wife is the processor of the liquor to make traditional brown sugar (*gula cetak*) and/or granular brown sugar (*gula semut*). From observation, it was noticed that sometimes there were some women who tapped the liquor when their husbands were sick. Thus, women can also do what men do, if they are given a chance or if circumstances force them into such an activity.

It is difficult to calculate the share of men and women in farm income. When we asked the husband and wife about their individual contributions to the farm income, they would say that it is not necessary to calculate it, because their income from farming belongs to the couple and their family. As both men and women of

farming households work together to produce rice, the rice belongs to them; both husband and wife have an equal contribution, according to their own standards. However, there are some different categories of labor that are usually done by men, or by women, especially in the non- agriculture sector.

At the research site, banana leaf traders were exclusively the occupation of men, and construction works and passenger motorcycle drivers also were done by men. In addition, wood factory manager, palm tree traders, banana leaf/fruits and wood transportation workers were the exclusive activity of males. Women were engaged in small shop keeping, civil servants (primary school teachers), and small-scale traders of brown sugar. The categories of women's occupations in the villages were fewer than those for males. That is one of the reasons why many women were working outside the villages as temporary migrants. Domestic (home) worker is an important occupation usually for unmarried women, with many people being thus engaged in big cities like Jakarta. A current important migrant occupation is overseas migrant labor in the Middle East Countries, especially Saudi Arabia. 2 years is the normal term for migrants to the Middle East, but some workers went there several times. These temporary migrant workers transmit their income to the family, and the transmitted income becomes an important source of

Table III-10-6 The average incomes among surveyed households in Kemang Village by sources of income in 1998

Source of Income	Men		Women		Men & Women	
	Value <sup>*)</sup>	%	Value <sup>*)</sup>	%	Value <sup>*)</sup>	%
1. Rice Field	-	-	-	-	1,393	20.8
2. Dry Land	-	-	-	-	864	12.9
3. Livestock keeping	-	-	-	-	69	1.0
Waged farm labor	16	0.2	43	0.6	-	-
Non-agriculture activity						
1. Banana traders **)	44	0.7	-	-	-	-
2. Small shop keeper	142	2.1	82	1.2	-	-
3. Civil servant	636	9.5	197	2.9	-	-
4. Construction waged labor	290	4.3	-	-	-	-
5. Migrant (Middle East)	-	-	1,200	17.9	-	-
6. Passengers motorcycle driver	95	1.4	-	-	-	-
7. Wood factory manager	345	5.2	-	-	-	-
8. Rice mill factory management	-	-	-	-	265	4.0
9. Palm fiber trade	154	2.3	-	-	-	-
10. Domestic worker	-	-	171	2.5	-	-
11. IDT's Program***)	-	-	-	-	8	0.1
12. Palm sugar industry	-	-	-	-	676	10.1
Total	1,722	26.0	1,693	25.0	3,275	49.0

Source: Same with Table III-10-2

Note: \*) Times to Rp1,000.00; \*\*) leaves and fruits traders; \*\*\*) Refer to the text.



family income.

Table III-10-6 shows the income contribution by males and women to the household economy. This table shows women were directly involved in the 74% income generation of household income. This relatively high-rate of women's contribution to the household economy is consistent with their deep involvement in farming as laborers, or managers, or in their production of the palm sugar.

### 5. The Bases of Upland Household Women's Higher Status

Since parents induce their sons and daughters to engage in agricultural and other productive activities during their childhood, and they are already accustomed to such activities by the time of marriage. Their experience during their childhood has a strong influence on their activities in their new household/family. The women's deep commitments to farming by taking part in both working and decision-making have legal and material bases; i.e. in the ownerships of land.

Based on focused group discussion, surveys and in depth interviews, it was found that although all the Kemang Village people are Moslem, they do not implement the Islamic inheritance law in allocating their land (agricultural land as well as house compound) for their children. They state that son and daughter have the same status, that is *sanak* (children), so the two (son and daughter) have the same right to the parents' (mother's and father's) land which is bought during their marriage as well as to the land that was owned at the time of marriage. Even in the case when they have to allocate land according to Islamic inheritance law, they will allocate this in two stages. In the first stage, by using the Islamic law, or what they call *Faroid*, the son gets twice as much as the daughter. However, the sons are usually aware that in reality their sisters also need land so in the second stage, the brothers share the land in the same amount with their sisters.

Because of this system, there are two categories of land owned by the households. One category is the land owned by wives or husbands individually, because they own it at the time of marriage, or they inherit it from their parents after marriage, and they keep their ownership after marriage (*harta bawaan*). The second category is the land owned jointly, because they obtained it jointly after their marriage. The second category of land is called *gono-gini*, or *teping kaya*. Table III-10-7 shows the compositions of land owned by male solely, women solely, and *gono-gini*. Average size of land owned by the 62 surveyed sample households was 105.3 *are* (1.073 ha) per household, among which 24.6 *are* (23.4%) was owned by women, 27.2 *are* (25.8%) was owned by men, and 55.5 *are* (52.7%) was category of *gono-gini*, or *teping kaya*. This means that the women of the sampled households had the customary right of possession over 76.1 % of the land owned by households in the surveyed sample. Over 23.4% of land owned by surveyed households, women have the exclusive right of disposal, and over 52.7 % of land owned by surveyed households, women as well as men have the customary

legal right. These rights of women on land made women commit themselves deeper to the usage of land.

Table III-10-7 The average land size owned by surveyed households at beber and Cikupa Hamlets by type of land and category of land owning in 1998 (unit: acre<sup>1)</sup>)

Owner	Beber (n = 41)		Cikupa (n = 21)		Beber & Cikupa (n = 62)	
	Rice Field	Dry Land	Rice Field	Dry Land	Rice Field	Dry Land
Men/ Husband	3.2	29.9	1.4	13,8	2.6	24.4
Women/ Wife	3.5	19.8	1,8	6.2	2.9	15.2
Gono-gini <sup>2)</sup>	7.9	60.6	10.9	35,7	8.9	52.2
Total	14.6	110.3	14,1	56.6	14.4	91.8

Source: Same with Table III-10-2

Note: 1) 1 are = 100 square meter; 2) Gono-gini is also called as *tepung kaya*, is the land owned by husband and wife jointly.

## 6. Conclusion

As with many villages in Indonesia, the Government agricultural extension programs surveyed in up-land village excluded women, because the village officers and extension workers thought household heads should be the core members of these programs and that harsh conditions in the up-lands restrained women from taking-part in farming as the main cultivators. This stereotyped perception of development agents was in sharp contrast with the general perception of Sundanese scholars of the relatively high status of women in society. This study examined the difference in perceptions by shedding light on the involvement of women in cultivation among farming households in a field survey using the methodology of focused group discussions, small census surveys, observations, and interviews with sample households using questionnaires.

This study presents evidence of women's deep involvement and participation in production. Women allocated almost half the working hours needed to cultivate the sloping up-land dry paddy fields as well as wet rice fields. Women allocated a lot of time for logging, tree burning, land preparing, and cleaning of up-lands, although the topography was steep sloping. Women took part in decision-making about cultivation and post-harvest processing for wet rice fields and up-land dry rice fields both as the sole decision makers as well as co-decision makers. For up-land dry rice fields, women took part in the decision-making at 80% or more households for almost all activities of cultivation and in post harvest processing usually as co-decision makers, however at the drying stage, women took part as the sole decision maker. For wet rice farming, at 70% or more household women participated in decisions as co-decision makers or as sole decision makers. In the technological domain, usually regarded as a male domain, women had active



participation. Women's active involvement and participation in the household economy is reflected in the composition of household incomes. In the surveyed households, women involved themselves directly in the generation of 74% household income. Women alone in non-agricultural sector generated 25 % of household income. This contribution indicates the women's deep involvement and participation in the household economy.

Women's deep commitments to farming by participating in both working and decision-making have legal and material bases; i.e. the ownership of the land. Women of the sample households had customary rights of possession over 76.1 % of land owned by households in the surveyed sample. Of the total land owned by sample households, women have the right to dispose exclusively over 23.4%, and women have customary legal rights over 52.7 % of the land as co-owners.

The deeper involvement and participation of women in production is consistent with their allocation of many working hours; their taking part in decision-making; their higher contribution to household incomes, and their stronger legal rights on land. The high status of Sundanese rural women is strongly related to the kinship system that is bilinear or parental which facilitates both women and men to have access to land, and in turn leads them to have access to and control over agricultural and non agricultural activities.

Organizations initiated by people themselves such as cooperatives and rotating credit groups in the research village involved far more women than the Government organized programs. Only Government organizations and programs have been strongly gender-biased. The concept of household head among rural Sundanese needs to be re-examined. This religiously supported concept does not actually reflect the real women's involvement and participation in the household economy as well as the power relations in the household. This study clearly shows the women's involvement and participation in farming and its social bases. The Government has no reason to exclude women from development programs for agricultural production, and other programs.

### Notes

- <sup>1)</sup> Many scholars of Southeast Asian societies have thought that Southeast Asian has long been identified as an area where women enjoy high status (Penny 1996).
- <sup>2)</sup> This study is a part of the Socio-economic Studies on Sustainable Development in Rural Indonesia, Japan Society for Promotion of Science (JSPS) – Directorate General of Higher Education □ Ministry of Education and Culture, Government of Indonesia (DGHE) Core University Program between University of Tokyo and Bogor Agricultural University (IPB) conducted in 1998 - 2002.
- <sup>3)</sup> 2 households were polygamous. 2 surveyed households had a wife and a husband who has another wife at non-surveyed household. Surveyed household was counted as wife based household, and this way to count seemed to reflect real condition of households.

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