## 論文の内容の要旨

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## 論文題目

A Comparative Study on the Arrangements of Customary Labor Institutions in Lowland and Upland Hamlets of Rural Central Java.

(中部ジャワ低地・高地村落における慣習的 労働組織に関する比較研究)

To date, studies on the custom of mutual help that is practiced among Javanese villagers have mainly focused on the activity that can be classified under *gotong royong*, which is a general term referring to collective action among villagers to pooling their labor power for the construction and maintenance of public facilities. However, only a few empirical studies examine the contemporary practices of mutual help institutions in rural Java and their mechanism of adaptation. A comparative study of the arrangement of labor institution practices in lowland and upland hamlets is likely will be a worthy contribution for learning the changing labor exchange process in both research sites. The comparative study will illustrate the adaptation strategies by local people in response to changing labor conditions.

The Study was conducted in 2002, 2008, and 2009. The study in 2002 was focused on the general condition of the research sites, general and functional characteristics of labor institutions, and socio-economic structure of surveyed households. In 2008, the field research was directed to analyze the transitional process of labor institution practices in surveyed hamlets. The final study was carried out in 2009 and focused on the arrangements of hired labor for farming operations in lowland hamlets and customary selling of collective labor in upland hamlets.

By analyzing labor institutions from the perspective of the influence of particular factors such as the expansion of labor markets, resource endowments and production risk, and technological changes, it has been confirmed that these factors have massively

influenced the traditional labor exchange arrangements in rural areas. In general, rural communities have developed the various innovative strategies for creating institutional labor innovations that congruent with traditional and local norms.

In lowland hamlets where the economic structure is primarily based on non-farming income and where the geographical conditions are favorable and lower production risk for farming practices, the high population mobility and the strong impact of technological changes in farming production systems have reduced the need for collective work for various farming activities.

In contrast, in upland areas where the economic structure is more dependent on farming, where there are significant geographical limitations and resource scarcity, facing higher production risk and where technological changes related to the mixed cropping system (agroforestry) have been implemented, villagers tend to demand and intensify traditional collective work arrangements such as *sambatan*, which, to some extent, has been supplemented by the newly introduced *prayaan* institution for coping with basic daily needs, including both farming and non-farming activities. However, *krubutan* practices still survive, despite the fact that the practices are arranged under strict rotation schedules.

Despite the transitional process that has occurred in the labor exchange institutions in rural Java, community members with tight social relationships have the capacity to adapt to the process of change. The arrangement of collective work for house construction and repair is still widely practiced. However, the division of labor and the diversification of villagers' income sources may enable well-off households to build modern houses. This possibility may reduce the need for collective work in the future because the construction and repair processes for modern houses require highly skilled labor.

In the lowland rice-growing areas of rural central Java, the practices of labor exchange for farming operations have been dramatically decreasing, and in some places, the practice has completely disappeared. Landowners could no longer rely on their own family labor or on the tradition of labor exchange. Instead, they found it convenient to hire group of laborers rather than having to deal with large numbers of individuals. The use of institutional labor innovation under various arrangements of hired labor is becoming predominant.

A significant influential factor in determining whether labor is hired for farming operations other than for harvesting and threshing is the involvement of non-farming jobs. Harvesting and threshing have been significantly influenced by three factors: the cultivation of land, the income level and the involvement of non-farming jobs. Land preparation is regarded as a task that requires skill and should be completed in a short period of time; hence, regardless of a household's socio-economic characteristics,

farming households tend to hire tractor operators. For hoeing-leveling, transplanting and weeding, households whose members do not have non-farming jobs can complete these activities by fully relying on the labor of family members, whereas households whose members have permanent non-farming jobs tend to hire labor more often than households whose members have temporary non-farming jobs.

The sense of income sharing under the spirit of moral economy is, to some extent, still alive. It can be found under the *bawon-bawon* and *bawon*-operator arrangements for harvesting and threshing. *Bawon-bawon* has been offered only among households that cultivate small areas of land, that have high incomes and whose members have non-farming jobs. *Bawon*-operator has been offered by households that cultivate small areas of land, that have low incomes and whose members have non-farming jobs. For lower-income households, the high share cost of *bawon-bawon* practices is not affordable; hence, they prefer offering the *bawon*-operator system.

Even though commercialization and modernization have had a dramatic influence on hired labor arrangements, farming households still prefer to hire laborers from among their neighbors, who commonly have close social relationships, often because they are relatives. Social relationships, which commonly develop within close residential proximity, are still perceived as important by villagers involved in labor contract arrangements. The transaction and arrangement of hired labor are likely not only perceived as economic or market transactions but are also related to the social relationship system in the community. To some extent, economic rationality and moral economy coexist in hired labor arrangements for various farming operations in wet rice villages of rural Java. However, the moral economy perception among villagers has become more limited.

Villagers in less favorable mountainous areas, who face more difficulties but keenly try to search for institutional innovations, have been transforming traditional labor arrangement practices for completing various daily tasks. The practice of traditional long-established labor exchange on farming operations has been widely supplemented by a new invented institution referred to as *prayaan*.

Prayaan has been considerably supplementing activities that must be done in a timely manner and require many laborers and/or delicate work. These activities include terrace field construction and repair, land preparation, weeding and activities related to timber and firewood. A relatively large number of group laborers and the lower labor payments for group members are perceived as incentives and advantage by members.

The *prayaan* arrangement embraces not only economic or profit interest but also socio-cultural dimensions. The higher prices for non-members, the maintenance of labor charges for non-members in line with market prices, the mechanism of direct distribution

of collected wages and the investment in productive assets have been among the pieces of evidence that the *prayaan* arrangement is a type of economic institution. However, the development of the system based on penalties that, to some degree, prevent opportunistic behavior of the members, the charging of lower labor rates if the work is hosted by members, the flexibility and priority for members in hosting laborers, and the mechanism of income disbursement for social and religious events indicate that *prayaan* is also oriented for social-cultural functions.

In Jati hamlet, which has access to less favorable resources, is remote, and is relatively far from the sub-central labor market (coastal region), and the survival of some traditional labor institutions has induced villagers to arrange *prayaan* labor primarily as an institution for earning income from either non-members or members. In Watugajah hamlet, which has access to better resources, has high people mobility, and is relatively close to the sub-central labor market, the reduction of some traditional labor institutions has induced villagers to arrange *prayaan* labor more as an institution for obtaining collective labor at cheaper price.

In short, the labor institution arrangements in the surveyed hamlets generally can be regarded as "independent institutions" that developed based on local collective initiatives. The development of these institutions reflects a high capacity and capability of the local people to collectively adapt various traditional labor institutions to support current basic daily needs.

In the case of labor institutions developed to complete various farming operations, these institutions can be assumed to be completely independent of formal governmental involvement. Most of these institutions have been arranged through initiatives undertaken by the local people.

Considering the effectiveness of the systems of various local institutions for supporting the daily needs of local people, there is the possibility for local government to directly become involved in or provide support to those existing institutions. Local governments must determine the proper mechanism and the type of supports in preventing the destruction of well-designed traditional systems. Well-designed and appropriate support from local governments is expected to enhance the capacity and capability of local people to strengthen economic access and to improve social and cultural life among local community members.