in Developing Countries: 上較経済発展論の試み Toward a Theory of Comparative Economic Development

PRIMCED Newsletter

No. 8 (October 2013)



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Discussion Paper Series



Message from the Project Leader

Takashi Kurosaki (Project Leader)

Since 2010, household surveys have been conducted in rural areas of Asia and Africa as part of the PRIMCED research project. High-quality, detailed data on economic institutions, organizations, and transactions are required for the PRIMCED analysis, but such data are rarely available in the usual micro databases of firms and households. Of these PRIMCED surveys, I have been involved in four: the cycle rickshaw survey in Delhi, India; weather index insurance research in Madhya Pradesh, India; recovery from floods in Khyber Pakhtunkhwa, Pakistan; and community-based development under a women-focused NGO in Khyber Pakhtunkhwa, Pakistan. Remaining surveys include four decades of surveys in East Laguna village, the Philippines (see other articles in this newsletter); a long-term agricultural household panel survey in Burkina Faso; a high-frequency panel survey of agricultural households in Zambia; and a survey on health care in rural Nigeria.

The survey on flood recovery in Khyber Pakhtunkhwa, Pakistan covered two villages near the city of Peshawar, where I conducted a panel survey from 1996 to 2000, and eight new villages. For the first time as a professional economist, I designed the questionnaire and sampling for the 1996-2000 panel survey of North-West Frontier Province (NWFP). Since almost no microeconomic surveys had been conducted by foreign scholars on the NWFP rural economy, I intended to obtain long-term, detailed panel data of villages and households, similar to data collected by the famous ICRISAT regarding Palanpur villages in India (see Sawada's article in this newsletter). My co-researchers and I intentionally chose three villages that were similar in terms of size, historical background, and tenancy structure, but different in terms of irrigation level and access to Peshawar City.

Unfortunately, my initial objective materialize. Law and order situations in the study area deteriorated after the September 11 attacks in 2001. Of the three original villages selected for the study, one became inaccessible (even for my Pakistani co-researchers). After unprecedented, nationwide floods hit the study area, I initiated the PRIMCED survey on flood recovery. I was disappointed when law and order situations near Peshawar City deteriorated further during the second half of the 2000s, preventing my field visit to supervise the survey. However, my Pakistani co-researchers did a reasonably good job of supervising in my absence. As a Japanese economist working on South Asian economies, I have learned a great deal from direct observations in the field regarding the comparative development of these economies. Thus, it was a frustrating experience for me to miss the opportunity to observe with my own eyes recent changes in the selected villages after the 2010 floods.

I have visited villages in India, Pakistan, and Bangladesh continuously since 1986, when I visited India for the first time. As many of these visits were informal, they did not result in long-term panel datasets of villages or households. Nevertheless, these visits have enriched my thoughts about economic development. When the current international borders were drawn in August 1947 from the British Empire of India, political considerations, especially respective population shares of Muslims, were decisive factors. As a result, the Partition of the Indian Subcontinent has allowed us to gauge the impact of economic policies that are valid for areas defined by these borders. In

villages in India, Pakistan, and Bangladesh, I have found many similarities in human behavior, yet the differences appear to be widening. I believe that a rigorous quantitative analysis using macro and micro data is needed to support field observations.

The five-year PRIMCED project is now in its fourth year. In the remaining period, we will focus on conducting resurveys, compiling databases, and analyzing data. I would appreciate your further support of our project as we move toward achieving the successful compilation of databases on economic development.

Report on Field Surveys and Data Compilation

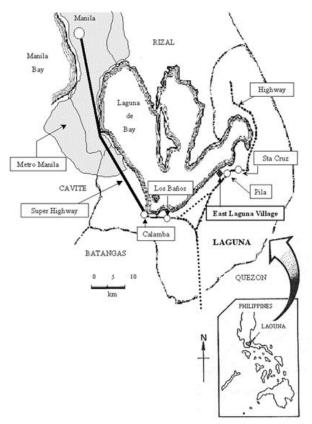
Under the PRIMCED research project, a number of household surveys have been conducted in developing countries in Asia and Africa. Information from these surveys is being compiled into databases. A major component of this research is the household survey that was performed in Hayami Village in East Laguna (the Philippines), which the late Professor Yujiro Hayami investigated for many years. The current issue features Hayami Village, with contributed essays by Professor Yasuyuki Sawada and Professor Kei Kajisa, successors of Professor Hayami.

Report, No.11 Lesson from Hayami Village

Yasuyuki Sawada (Graduate School of Economics, The University of Tokyo)

I do not know who began to call the East Laguna village "Hayami Village." It is located in the suburbs of Los Baños in the Philippines, an area that the late Professor Yujiro Hayami investigated for some time. He clearly referred to "my village" when he spoke at a seminar for the World Bank in 1999 or 2000, and my guess is that researchers widely accepted the name "Hayami Village" at least 10 years ago.

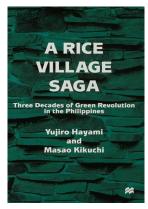
Professor Martin Ravallion at Georgetown University, a leading expert in the field of poverty research, has discovered two waves of fashion in "poverty" statements based on a vast quantity of data from Google Books. The first wave was observed in the second half of the 18th century, and the second



Los Baños in the Philippines







A Rice Village Saga

took place in the 20th century. Although the origins of the second wave can be traced back to the basic human needs (BHN) approach of the 1970s, I think that the root cause of this wave was the recognition of actual conditions of poverty cited in survey data. Micro data of high quality were obtained from both developed and developing countries, and evidence for poverty issues has been accumulating since then.

The Village Level Studies (VLS) conducted by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) made a substantial contribution to such evidence accumulation in the history of development economics. The investigators lived in villages for 10 years and constructed a huge panel dataset. From the ICRISAT VLS data, more than 100 doctoral and master theses were produced, and numerous journal papers were published in top economic journals such as Econometrica, American Economic Review, and Journal of Political Economy. Shortly after the ICRISAT VLS project began, the World Bank initiated the Living Standard Measurement Studies (LSMS) project (1980). It became the foundation of poverty measurement for the world's population and of international poverty comparisons by researchers such as Professor Angus Deaton at Princeton University and Professor Martin Ravallion.

According to Professor Keijiro Otsuka, the momentum of the period was probably the reason that two more pioneering household panel surveys were initiated during the 1970s, when the ICRISAT VLS was underway. The village survey in Palanpur, Uttar Pradesh, India was undertaken by the British research team of Professor Christopher Bliss (Oxford University) and Professor Nicholas Stern (London School of Economics; LSE); it has been continued by a

¹ Ravallion, Martin (2011), "The Two Poverty Enlightenments," *Policy Research Working Paper* 5549, World Bank. research team headed by Dr. Peter Lanjouw of the World Bank.² The other survey was conducted by Professor Hayami in East Laguna village in the suburbs of Los Baños in the Philippines.³

Following the first census survey conducted by Dr. Hiromitsu Umehara in 1966, 18 rounds of household surveys were conducted from 1974 to 2007 in collaboration with the International Rice Research Institute (IRRI). Surveys in the 1970s, 1980s, and 1990s organized predominantly by Professor Yujiro Hayami and Professor Masao Kikuchi were sources of numerous international contributions. They found that due to the increase in rice production and the reduction in rice price, both of which are induced by the Green Revolution, the income of agricultural households and food consumption of poor households increased significantly. They also found that a boost in non-agricultural income was attributed to investment in education financed by the improved income from agricultural activities. Five rounds of surveys in the 2000s were organized by Professor Kei Kajisa, Professor Nobuhiko Fuwa, Professor Jonna P. Estudillo, and me. These surveys are supported currently by the PRIMCED project, my other projects, and the work of other researchers. The current focus of the PRIMCED project is the influence of frequent natural disasters, especially typhoons and floods.

Regrettably, Professor Yujiro Hayami passed away on December 24, 2012. He was a giant who made an enormous contribution to agricultural and development economics. He was very serious about research, so when we asked questions of him at seminars, we were scolded for a lack of understanding of the respective papers! Professor Hayami was the pride of Japanese researchers in development economics; for us, he was the Southern Cross. While writing this essay, I read *A Rice Village Saga*⁴ again, and I found a printed copy of an E-mail sent five years ago from Professor Hayami to Professor Kajisa, Professor Fuwa, Professor Estudillo, and me. Professor Hayami always wrote in English, and I commonly felt both his severity and affection.

http://www.lse.ac.uk/asiaResearchCentre/countries/india/research/palanpur/palanpur.aspx for details.

http://www.ier.hit-u.ac.jp/primced/documents/DBE_Sawadaetal Philippines 130213.pdf for details.

² See,

³ See

⁴ Hayami, Yujiro and Masao Kikuchi (2000), *A Rice Village Saga: Three Decades of Green Revolution in the Philippines*, Macmillan Press LTD.

----- Original Message ------

Subject: Re: Hearing at ____

Date: Wed, 07 May 2008 14:09:24

From: Yujiro Hayami To: Yasuyuki Sawada

CC: Kajisa, Kei, Nobuhiko Fuwa, Jonna Estudillo

Sawada-san

I have come back to Tokyo. If you are interested in social capital aspects of _____, you are advised to read a 5-page section on social structure in my RICE VILLAG SAGA book (pp. 8-13), which give some hints on the choice of villagers' coping strategies.

If you have any questions, feel free to call me at office or home.

Yujiro Hayami

During the summer of 1999, I visited Hayami Village for the first time. Since I was in Manila by chance, I joined Dr. Masako Fujiie (Fujita), who studied under Professor Hayami, and her friend Dr. Masako li (now at Hitotsubashi University) for an interview in Hayami Village. I clearly remember that we asked various questions of a household head, a long-time research collaborator for IRRI whom we always visit when we go to the village. Thanks to an excellent IRRI staff member who accompanied us, we conducted a successful interview. The survey in Hayami Village was supported by the superiority of local staff from the Social Science Division (SSD) of the IRRI. I have been impressed over the years with the level of human resources and human capital accumulated by Professor Hayami for research purposes.

I vividly remember when Professor Hayami mumbled, "Who will be a successor of my village?" at a small dinner gathering a few years ago. I immediately thought, "Nobody can inherit Professor Hayami's research." However, accumulated research on Hayami Village is a treasure for scholars interested in development economics. I was willing to contribute to research on the village if I could collaborate with excellent researchers like Kajisa-san and Fuwa-san. The PRIMCED project fulfilled my secret wish. I am grateful to Kurosaki-san, the PRIMCED project leader.

One of the causes of the "second wave," according to Professor Ravallion, is the deepening of poverty research. Improvement of analytical frameworks of microeconometrics, more efficient computational facilities, and the availability of data of high quality have been foundational to poverty research. Field experiments, which have become more popular in development economics in recent years, are new additions to this research area. On the other hand, we should never forget that the knowledge resulting from the continuous village-level investigations that were conducted over a long period has been a driving force of renewed research vigor. In fact, it will remain a driving force in the evolution of development economics. This is the lesson from Hayami Village, I believe.

Report. No.12

Hayami Village after His Days

Kei Kajisa

(School of International Politics, Economics and Communication, Aoyama Gakuin University)

A Rice Village Saga, co-authored by Professor Yujiro Hayami and Professor Masao Kikuchi, is a compilation of 30 years of research regarding Hayami Village in the Province of Laguna in the Philippines. Hayami Village, which was a traditional agrarian village before the Green Revolution, has experienced a transformation both in society and economy. After describing the changes in detail in the book, Professor Hayami asked in the epilogue, "How long will this remain a rural village?" Even at the time of the book's publication in 2000, several changes had already begun, such as the trend of young villagers and urban migrants to move away from rural areas to newly developed residential areas. Now, 13 years later, what does the village look like?

From 2006 to 2012, I had the fortunate opportunity to work at the Social Science Division (SSD) of the International Rice Research Institute (IRRI), the research institution where Professor Hayami and Professor Kikuchi were based when they conducted their village surveys. During my tenure there, I often visited Hayami Village. Thanks to the competent support staff of the IRRI, a group also known as



Professor Hayami and villagers (1970s)

"Hayami ladies," I was able to conduct village interviews efficiently. Some of the staff, mostly senior members, even engaged in the first round of surveys in the 1970s; they also resembled residents of Hayami Village. For instance, they could correctly name the members of many households in the village from memory. In this ideal setting for long-term recurrent surveys, I am privileged to be a part of two full-scale surveys. In 2006, I joined Professor Sawada, Professor Fuwa, and others in a survey on typhoon disasters; currently, I am collaborating with PRIMCED on an ongoing survey of flood disasters. In an effort to answer Professor Hayami's question about the future of the village, I will describe the current situation.

The most significant change involves the labor force structure in the village. As of 2007, the number of persons engaged in non-agriculture exceeded 59%. Young villagers and aging farmers are moving out of agriculture, and the development of an industrial complex near Manila is progressing. Japanese intuition suggests that agricultural mechanization will proceed here. In the Philippines, however, many laborers from poorer villages and villages with different agricultural calendars are available for work.5 Under the current economic environment, a new form of agrarian contract is emerging in which an agricultural household contracts out farm operations to a group of laborers from other villages. In this informal contract, an agricultural household usually deals with a foreman who manages the workers. For example, an



Professor Hayami and villagers (2000s)

agricultural household enters into a harvesting contract with a foreman at the piece rate of a specified percentage of the crop harvest. The foreman distributes the payment to his workers after harvesting. Since the same workers may not be available for the duration of a job, it seems reasonable to settle the contract with the foreman to avoid the high transaction costs of dealing directly with unknown workers, A young farmer told me that she stopped dealing with older villagers and moved to a new contract with a foreman when she took over the farm; as I recall, she pursued this arrangement because the older villagers were getting busier with their own businesses and did not assist with harvesting as promised. The traditional scene in which fellow villagers gather to assist each other with agricultural operations is disappearing. Thus, enjoying community networks through collective farm work appears to be a thing of the past.

Meanwhile, it seems that the community networks within a village are still important for consumption smoothing when negative shocks such as disasters occur. Typhoon Milenyo hit Hayami Village in 2006. Although a typhoon is not uncommon in the Philippines, its damage depends on the typhoon's actual course. The 2006 typhoon hit the village directly just before harvest, and a number of households suffered from damages such as paddy lodging and a decline in the quality of harvested rice. Moreover, damages to houses and destruction of fruit trees were serious consequences affecting some households. The abovementioned survey showed that informal credit and grocery sales on credit were important components of consumption smoothing in the village. 6

⁵ The population growth rate of the Philippines in 2012 is 1.7%. It is relatively higher than other neighboring nations. For example, that of Thailand is 0.3%, Cambodia is 1.3%, Bangladesh is 1.2% and India is 1.3%. The agricultural wage in Laguna Province including East Laguna village has not changed from the level during the 1980s. It has been remaining at around 150 to 200 peso (purchasing power parity in 2010). However, due to the economic boom that becomes especially notable after 2012, the wage rate could start rising in the near future.

⁶ Other major means are; (1) reduction in consumption expenditure for relatively expensive protein sources such as pork (2) increase in non-farm labor works. Politicians gave some aid since the typhoon hit the village just before an election.

These types of informal credit transactions work best with closely knit community networks.

Probably, with limited access to formal credit and insurance services, an incentive to maintain community networks is likely to remain high for dealing with vulnerability. This means that there exists a force that keeps an agrarian village as before as in the old days. On the other hand, agricultural operations are expected to adjust toward a more businesslike approach. Therefore, farmers may want to expand their relationships beyond the village to take advantage of additional opportunities. This type of modernization may be regarded as a necessary process for optimal resource allocation through market transactions. Currently, villagers seem to be struggling with rebuilding personal relationships and facing a trade-off between a safe community with tight relationships or with "bonding social capital" and an open community with general trust or with "bridging social capital." Has the village changed since Professor Hayami's days? A clear change is the villagers' exit from agriculture. More deeply, it appears that traditional relationships among villagers are at a crossroads. In what direction are the villagers going? I hope the answer will become clearer as we continue the ongoing PRIMCED research regarding flood damage.



Milenyo hit Hayami Village

PRIMCED Discussion Paper Series (2013.4~2013.9)

- No. 41 (June 2013) Ryo Kambayashi and Takao Kato, "Good jobs, Bad jobs, and the Great Recession: Lessons from Japan's Lost Decade."
- No. 42 (February 2013) Robert Cull,
 Asli Demirguc-Kunt and Jonathan Morduch,
 "Banks and Microbanks."
- No. 43 (June 2013) David Roodman and Jonathan Morduch, "The Impact of Microcredit on the Poor

- in Bangladesh: Revisiting the Evidence."
- No. 44 (July 2013) Jonathan Morduch, Shamika Ravi, and Jonathan Bauchet, "Substitution Bias and External Validity: Why an Innovative Anti-poverty Program Showed no Net Impact."
- No. 45 (September 2013) Hangtian Xu and Kentaro Nakajima, "The Role of Coal Mine Regulation in Regional Development"



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