Household Dynamics, Village Characteristics and Consumption Patterns in Nang Rong, Thailand

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Extended Abstract

Rural areas of developing countries are transforming rapidly and becoming increasingly heterogeneous. Some of these transformations are related to what is generally called rural restructuring. Farming is becoming more diverse in structure and more tied to commercial cropping. At the same time, it is loosing centrality, as the proportion of people working in agriculture decrease, pluriactivity and employment in non-farm occupations (local and non-local) increase, and the identity between rural and farm fades away.

Other transformations are related to the process of development and general enhancement of living conditions of rural populations. This includes improvements in transportation and communications as well as the extension of infrastructure and social and other services, particularly in education and health. In particular, the development of communications and transportation, together with road improvements, cut isolation and increased the ties of rural places to urban and metropolitan areas.

Concomitantly, the demographic characteristics of rural areas of developing countries have also changed. Mortality and (later) fertility have decreased, and in general household size and population growth are falling. Migration patterns show more complexity, including not only rural-urban migration but also circulation and commuting.

In this context of change, this paper focuses on a different and comparatively less explored aspect of the transformation of rural areas: that of household consumption. The general objective is to examine changes in different types of consumption in relation to the changes in household dynamics and village characteristics, though the case study of Nang Rong, a relatively poor farming district in northeast Thailand.

The general hypothesis assumes that changes in household dynamics and villages' characteristics are mirrored by changes in consumption, and that these changes led to increasing heterogeneity. Consumption is divided in three basic types: basic services and infrastructure, social services, and durable goods. Changes in household dynamics include: farming status; stage of the lifecycle; size; composition; human capital, migration status and occupation of the members; and income sources. Finally, villages' characteristics take in account accessibility, infrastructure and availability of services.

The data for this paper come from the Nang Rong Projects[1]. They consist of a prospective and multilevel (individuals, households and villages) survey covering all the households in 51 villages of Nang Rong, fielded in 1984, 1994 and 2000. In addition to cross sectional examination, these data are well suited for the analysis of change over time with panel data techniques.

[1]A complete description of the projects and the characteristics of the data sets can be found in www.cpc.unc.edu/projects/nangrong/

Map 1 about here

An example of the changes in consumption in Nang Rong between 1984 and 2000 is given by fuel for cooking, which shows a notable change between the mid 1980s and 2000 (Table 1). In 1984, 95% of the households used only wood or charcoal for cooking, while less than 1% used gas. By 2000, the proportion using only wood or charcoal was 15%, and the proportion using gas had increased to 53%.

Table 1 about here

A critical observation is that in 1984 the possibility of using electricity for cooking was conditional on the availability of electricity in the village of residence. Only 19 (31%) of the 51 villages in the sample had electricity at that time. Instead, in 1994 all the villages had electricity. In addition to this, households with electricity increased from 30% in 1984 to 93% in 1994, which indicates that availability does not necessarily mean use. This question was not asked in 2000, assuming all the households had electricity by then.

This general pattern of change shows variations for the different types of households (it is assumed that old households are in a more advance stage of the life cycle that new households). Table 2 presents these variations for the use of gas for cooking.

Table 2 about here

In 1994, within the small proportion of households using gas for cooking, old and combined households showed differences (significant at the 90% confidence level) with new households. In 2000, at the same time that the use of gas for cooking increased, differences among households widened as both new and combined households were significantly different from old households.

Map 1: Location of Nang Rong

Source: Nang Rong Projects (www.cpc.unc.edu/projects/nangrong/aboutus/study_area)

Table 1: Fuel for cooking, 1984, 1994 and 2000 (% of Households)

Fuel for cooking	**1984**	**1994**	**2000**
Wood		71.47	74.31
Charcoal		87.22	87.66
Wood or Charcoal	99.37	95.80	92.43
Gas	0.73	15.13	53.06
Electricity	3.67	62.10	79.30
Other	0.17	0.48	0.50
Only wood or charcoal	95.70	36.27	15.41
Only electricity	0.00	0.83	0.38
Only gas	0.00	0.22	0.44
Only gas or electricity	0.00	3.96	6.90
N	5960	7331	8238

Note: Totals do not equal 100% since more than the use of more than a fuel is possible.
Source: Nang Rong Projects

Table 2: Use of gas for cooking by type of household, 1994 and 2000 (% of households)

Type of household	1994	2000
Old (observed at least twice)	15.61	54.72
New (observed once)	13.88	46.67
Combined old households	19.51	48.78

Note: old households in 1994 are the households that were observed in 1984; old households in 2000 are those observed in 1994 and/or in 1984. Any given household can have a maximum of three observations and a minimum of one.
Source: Nang Rong Projects