

## **Small-scale food processing enterprises in Indonesia: Which elements influence employment capacity?**

Jörg Joachim Dirks, Dipl.-Ing. agr.

Institute of Rural Development, University Göttingen  
Waldweg 26, 37073 Göttingen, Germany, Email: [jdirks@gwdg.de](mailto:jdirks@gwdg.de)

### **Abstract**

This presentation describes demographic factors in the entrepreneur's household and the marketing system of the enterprises as the two main influencing factors for the employment capacity in Indonesians small-scale food processing enterprises. The main findings are, that the family cycle influence the employment capacity and creation as well as the marketing institution and region.

*Keywords: small-scale food processing industries, employment capacity, semi-rural, Indonesia*

### **Problem**

Developing countries whose economies are mainly dominated by agriculture have problems as a result of continually increasing populations and shortage of land for agricultural production. The rural population, which in the past found employment in the agriculture sector, now has to look for employment alternatives because the absorption in this sector is limited. Missing alternatives, especially in rural areas, can result in impoverishment and migration to urban areas.

The rural small-scale industry can play a key role in the preparation of employment and income alternatives for the rural population, and impoverishment and migration streams to urban areas can be restricted.

### **Research objectives**

This presentation is based on a study, which examines the various employment dimensions in rural food-processing small-scale enterprises.

Empirically the demographic, spatial, temporal and economic dimensions of employment in small-scale enterprises will be revealed. Factors, which influence the employment situation in the enterprise-household system, will be analysed and conclusions will be drawn respecting the stability and role of rural small-scale industries in the development process.

In this presentation only two of the main influencing factors will be shown after a general review. These two factors are: **demographic factors** in the entrepreneur's household and the **marketing system** of the enterprises.

## **Methodology**

The **scope of this research** is the enterprise-household system with its three partial systems "household", "enterprise" and the "external system area". The partial system household is the co-ordination centre for distributing resources, which are at household's disposal for the three partial systems.

The **research region** was located in West-Java, in the District Bogor, 60 km south of the Indonesian capital Jakarta, in six Sub-Districts (Bojonggede, Cibinong, Citeureup, Megamendung, Ciawi and Caringin). These Sub-Districts have a semi-rural character with an average population density of 4177 inhabitants per km<sup>2</sup>. Agriculture, as well as middle and large size industries are located in these areas. The infrastructure, access to markets and the public transportation system are well developed. The average distance from these Sub-Districts to the city Bogor (300,000 inhabitants) is 17 km. Busses and trains shuttle regularly during the whole day in various directions, including the capital Jakarta.

The **data and information** furnished in this presentation are largely based on facts and research findings drawn from fieldwork activities conducted during a six-month period in the research regions (from November 1998 to May 1999). 79 entrepreneur-households in eight different branches were selected for the main study. The criteria used for the

selection were the number of employees (max. 19 employees) and the main income source of which income from the enterprise had to make up at least 50 % of the total household income.

## Results

### *General Review*

During economic crisis in Indonesia the employment capacity decreased from 5,29 employees to 4,28 employees in average per enterprise. The percentage of family members was nearly constant while only the

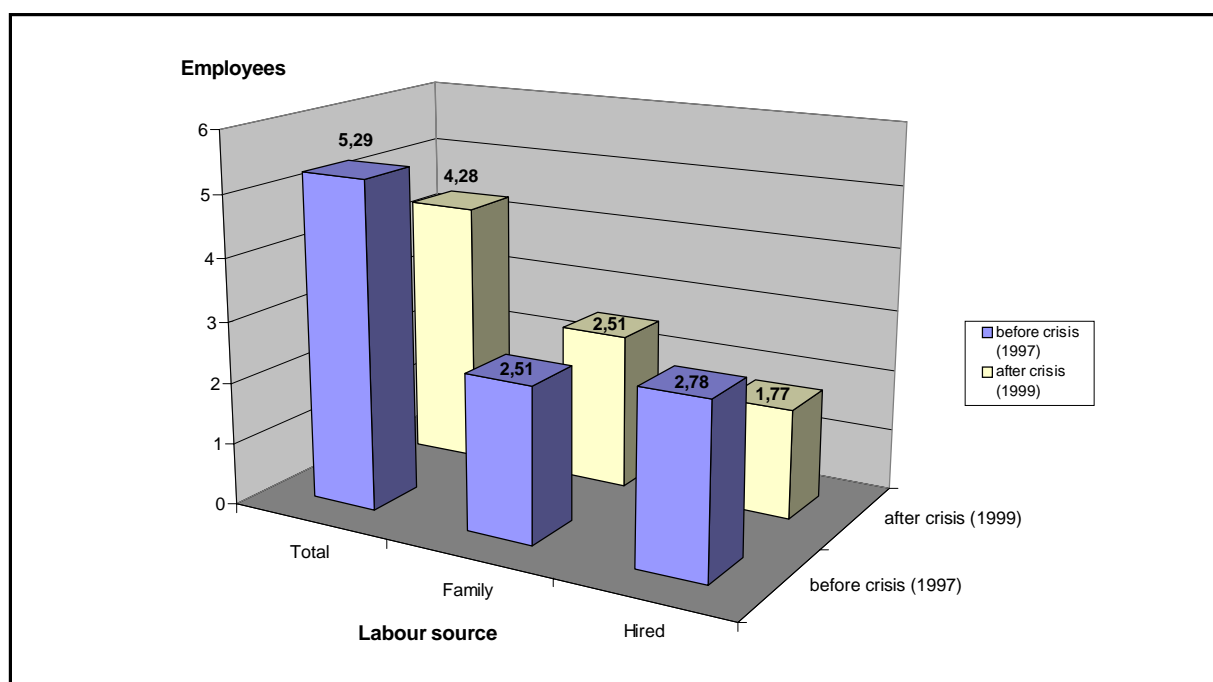


Figure 1: Average employees before and after economic crisis

amount of hired employees decreased. It shows that the institution “family” is one of the most important labour source in small-scale enterprises and a relative stable entity during economic crisis [see Figure 1].

### *Demographic Factors*

The demographic entrepreneur household data show that small families (4,6 family members) have less total employees than large families [see Table 1].

Table 1: Size of entrepreneur household and employee composition in dependence on employment groups

	Household size (average)	Family employees (average)	Hired employees (average)
<b>3 total employees</b>	4,6	1,8	0,5
<b>3 total employees</b>	5,7	3,0	2,8

Family employees are the main labour source in the enterprises. The relation between family employees and hired employees show that enterprises with less than three total employees have less hired employees (0,5 in average per enterprise) than enterprises with more than three employees (2,8 in average per enterprise). Age of children is decisive for the differences (correlation family employees/age of children is 0,45 with significance at the level 0,01). If the age of children increase family employees rise while the amount of hired employees is nearly constant. During growth of the family at first family members will be employed, later on when the enterprises grow also hired employees. The size of the families, respectively the family cycle influence therefore the employment capacity in the enterprises.

### *Marketing*

The marketing segment is divided in marketing institution (self-marketing and trader) and marketing area (rural and urban).

Table 2: Total employees and profit in dependence on marketing institution and regions

	Marketing institution		Marketing region	
	Self-marketing	Trader	Rural	Urban
<b>Total employees</b>	3,9	4,5	3,3 <sup>2</sup>	4,5
<b>Profit (US \$ per week<sup>1</sup>)</b>	96	72	86	98

<sup>1</sup>) 1 US \$ equal 8.700 Indonesian Rupiah (March/April 1999)

<sup>2</sup>) Correlation rural marketing/total employees is -0,230 with significance at level 0,05.

Enterprises with traders as the main **marketing institution** have more employees (4,5 total employees) than enterprises with self-marketing (3,9 total employees) [see Table 2]. The reason for this difference is embedded in the fact that enterprises with traders as their main marketing institution have a better knowledge about the market situation and so a larger production volume. The profit in this enterprises is lower than in enterprises with self-marketing because entrepreneurs have to pay transport costs to the traders while the other enterprises organise the marketing by themselves with cheap transports (e.g. bicycle).

The **marketing region** reflects a similar picture concerning the amount of total employees [see Table 2]. Enterprises with a main urban marketing region have more employees (4,5 employees) and a higher profit (98 US \$ per week) than enterprises with a rural marketing region (3,3 employees and 86 US \$ per week). The reason for a higher employment rate and profit in urban regions is here the higher sales volume and the favourable sales prospects due to a higher demand.

#### *Factors which do not influence the employment capacity*

- Level of profit: Enterprises with less employees can have the same amount of profit than enterprises with more employees.
- Machines: Machines are used in all branches but numerical more in branches with more total employees and with more hired employees to relieve the working process.
- Education of the entrepreneur.
- Age of the business.

#### **Conclusion**

- General, influencing factors, which are inherent in the enterprise-household system have a great variety for the employment sector.

- The institution “family” is the main labour source in small-scale food processing enterprises and a relative stable entity during economic crisis.
- “Family cycle” and the marketing segment are important influence factors for the employment capacity in small-scale enterprises.