The Links between Employment and Poverty: Cambodia[1]

Introduction

A wide disparity can be observed between poverty and GDP growth in Cambodia. The poor mostly depend on labour for their earnings. And also, given the sectoral structure of the labour market, the working poor are at a disadvantage. So far, they have gained only a small fraction of the total benefits as result of the trickle-down phenomenon of growth. Although a large number of poor people have jobs, to an extent these are in the informal economy where they have neither adequate income nor employment security (Bell and Newitt 2010). Agriculture remains dominant in its capacity of labour absorption (69 percent of the total labour force), while, at 4.8 percent during 2000–11, its growth rate has been slower than other sectors'. Industry has grown quickly but absorbed only 9.1 percent of the workforce. Hence, the employment structure of the country has not changed significantly. Most of the labour force is employed in low-productivity rural activities, while many are unemployed or underemployed. Those in low-wage jobs have had little chance to move out of poverty, to invest in expanding their employment opportunities or to run their own businesses. As a result, in 2011, the incidence of poverty remained significantly high at 19.8 percent (MOP 2012).

The objective of this article[2] is to explore the links between labour market structure and employment, and the poverty situation in Cambodia. Descriptive analysis of the employment elasticity of growth, labour productivity and real wage growth is used to reveal the labour market structure and trends, while probit estimation shows the link between employment in agriculture and industry, and the likelihood of poverty.

Methodology

The probit model[3] is adopted from studies by Jemio and Choque (2003), Huong *et al.* (2003) and Krongkaew *et al.* (2006) to examine the magnitude of the probable effect employment has on household poverty. The equation model can be expressed as:

$$Y = \alpha + \beta E + \sum \pi X + \varepsilon$$

where, Y is the probability of being poor, E represents household employment (which equals (1 if the household head is employed in agriculture, and 0 if he/she is employed in industry), and X includes household head characteristics (age, education, gender and paid employment), region, household size, household members of different age groups, average working hours/days, on-farm and off-farm income, and land size.

This paper employs mixed macro and micro data for the descriptive analysis, while household data from the Cambodia Socio-Economic Survey (CSES) is used for the probit modelling.

Employment Situation

For this research, employment is defined as work of at least one hour per week (NIS 2011), regardless of occupation. On average, over the 10 years to 2011, 83 percent of the total labour force in Cambodia was participating in employment, accounting for 54 percent of the total population. Sixty percent of those employed were engaged in the agriculture sector, 26 percent in services and 14 percent in industry. Of the total employment in industry, manufacturing alone accounted for 62 percent. The labour force increased by 3.3 percent each year. New formal employment opportunities

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[2] This article draws on the findings of a larger study (Phann forthcoming) – part of an inclusive growth project – financially supported by Sida.

[3] The probit model is the probability of the outcome variable (taking only two values – in this case whether the household is poor or not) changing when there is a change in the value of a regressor.

increased at the same rate as the labour force from 2009, although they increased at a higher rate of 3.6 percent if the years before 2009 are included. This job creation rate was not enough to employ the entire workforce. However, the unemployment rate was low at an average 1.1 percent, mainly as a result of the loose definition of employment, which takes all employment into account, even work that is considered "vulnerable", i.e. not stable or regulated. The number of females engaged in economic activities remained low at 78 percent of the total female workforce, while the corresponding figure for males was 86 percent. One of the explanations for this is that females still spend a lot of time on domestic chores, which are considered predominantly female tasks.

Opportunities for employment were greater in rural than in urban areas. According to the CSES, the working population in rural areas constituted an average of 68 percent of the total rural workforce during 2004-11, while in urban areas it was 57 percent. Of the total workers in rural areas, 59 percent were engaged in agriculture, 9.8 percent in manufacturing, 9.5 percent in trade, and around 21 percent in other sectors. Urban employment was mostly in trade (28 percent), agriculture (16 percent), manufacturing (11 percent), public administration and defence (8.0 percent), and other sectors (37 percent).

Employment Elasticity of Growth

The employment elasticity, or employment intensity, of growth shows how the change of sectoral outputs varies the employment opportunity – the extent to which employment is affected by changes in sectoral GDP, and vice versa. Between 1995 and 1998, the overall elasticity was higher than unity – employment increased at a greater rate than output, indicating that employment opportunities would increase by more than 10 percent if GDP grew by that percentage. This period showed, for industry, sound employment growth, but a much lower rate of productivity growth. Agriculture and services absorbed many workers, with high labour productivity to match (Table 1). The following equation expresses the relation between the elasticity of growth and change in employment productivity:

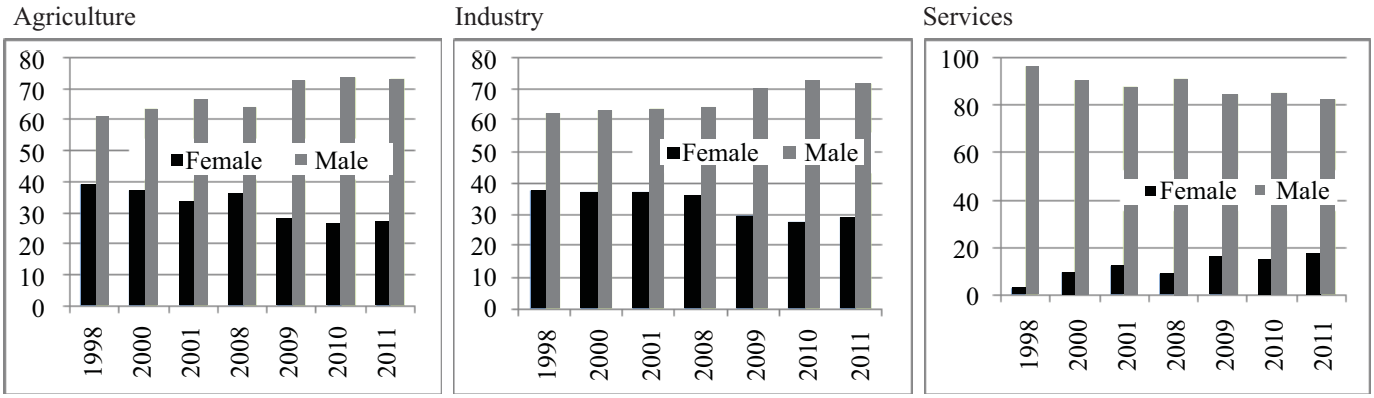
$$\varepsilon_i = \frac{\Delta E}{\Delta Y} = \frac{(E_{it} - E_{i(t-1)})/E_{i(t-1)}}{(Y_{it} - Y_{i(t-1)})/Y_{i(t-1)}}$$

$$\varepsilon_i = 1 - \frac{\Delta P}{\Delta Y}$$

$$\Delta P = (1 - \varepsilon)\Delta Y$$

where, ε is employment elasticity of output, E stands for employment and Y for output, i is sector, t is time, and P is productivity.

Figure 1: Male and Female Paid Employment, by Sector (%)



Source: World Development Indicators, 1998–2011

Table 1: Sectoral Employment Elasticity of Output Growth (selected periods)

	1995-98	1999-2003	2004-07	2008-11	2008-11 (without 2009)
Agriculture	0.78	0.44	0.09	-55.76	0.34
Industry	4.33	6.91	-2.71	2.39	-2.15
Services	0.99	1.03	0.71	-3.65	-3.48
Total	1.01	0.74	0.39	-0.16	-0.36

Source: Author's calculations based on NIS 2011; IMF 2009; World Bank–WDI, 1995–2011

Table 2: Sectoral Labour Productivity (USD/hour/worker, selected years)

	1997	1998	2000	2001	2004	2007	2008	2009	2010	2011
Agriculture	0.22	0.17	0.14	0.15	0.18	0.25	0.24	0.30	0.32	0.33
Industry	1.19	0.94	0.75	0.53	0.61	0.62	1.36	0.68	0.70	0.75
Services	0.82	0.40	0.64	0.49	0.43	0.46	0.94	0.64	0.57	0.65
Average	0.37	0.26	0.28	0.27	0.32	0.39	0.50	0.48	0.48	0.51

Source: Author's calculations based on NIS 2011; IMF 2009; CSES, 2004–2011; World Bank–WDI, 1998–2011

From 2008 to 2011, the employment elasticity of output growth in agriculture was hugely negative at 55.8, and in services a negative 3.6. This was the result of the global financial crisis and its aftermath. Table 1 shows that only industry was relatively unaffected by the crisis, with positive elasticity of 2.4. This sector was considered more labour- than productivity-driven, which is confirmed by the elasticity figure. In contrast, agriculture and services were driven more by productivity than by the numbers of people they employed. The likelihood of employment was greater for males than for females. Going on the observed trend between 2008 and 2011, had GDP grown by 10 percent, the likelihood of increased employment for male workers would have been 7.2 percent of the total male labour force, while for females it would have been 6.5 percent of the total female labour force.

Labour Productivity and Real Wage Growth

During 2007–11, labour accounted for an average of 66 percent of inputs to services and 54 percent of inputs to agriculture. The corresponding figure for industry was 43 percent. This emphasises the importance of increased labour productivity as an economic resource for output growth that can enhance a firm's competitiveness (Krugman 1994).

In 2011, agricultural work produced USD0.33 per hour, an increase of more than two times from 2000 (Table 2). This was due mainly to changes in inputs such as improved seeds and the use of fertilisers, pesticides and machinery. Labour productivity in services was USD0.65 per hour, a slight increase from USD0.64 in 2000. Labour productivity in industry was the highest (USD0.75 per hour) yet it was not a driver of industrial growth, indicating that it represented an ineffective use of labour, which itself had limited capability.

In order to improve the quality of life for its people, Cambodia needs not only employment opportunities but also proper waged employment. The CSES found that the real monthly wage of agrarian workers was an average of KHR228,036 (USD56) in 2011, while those in industry earned an average KHR375,362 (USD93) and in services KHR534,464 (USD132). Wages grew at average rates of 41 percent in agriculture, 15 percent in industry and 11 percent in services during 2007–11. People living in Phnom Penh depended heavily on waged employment, which accounted for 57 percent of the total income sources available to households in that area; in contrast, it was only 25 percent for coastal residents.

Empirical Results

In 2007, households involved in agriculture had an 11 percent higher chance of being poor than those engaged in industry. The likelihood of poverty decreased in 2009, falling to 2.4 percent. Poverty rates could not be ascertained from the data for 2010 and 2011. In every round of the CSES, it was also apparent that an additional year of education for the household head reduced household poverty by 1.8 percent. Furthermore, households with landholdings of at least 1.2 hectares were less likely to be poor, as was also the case for households with a greater number of members aged between 18 and 64. On other hand, a large household size – 4.7 members and above – and a large number of members aged below 18 were factors that could propel households into poverty.

Conclusion

Cambodia's labour market is still narrowly based and dominated by opportunities for male employment. However, female participation in economic activities is increasing in all sectors. Industrial growth was found to be labour-driven, while its labour productivity was higher than that of agriculture and services, whose growth was productivity-driven. Labour in agriculture and services was easily affected by shocks, as was observed during the financial crisis and its aftermath in 2009. Moreover, those employed in agriculture had a higher probability of being poor than those engaged in other sectors. The factors that help households to escape from poverty are chiefly land ownership and education.

Therefore, suggestions for macro policies include expanding access to agricultural land by fair and accurate documenting, mapping and land titling. This would encourage crop production and enlarge downstream economic activities in processing or retailing. These would, in turn, help the creation of both farm and off-farm employment. Enabling people to have more education is very important, and additional public investment should be allocated especially to lower secondary and secondary education. An enlarged budget should also be made available to primary and lower secondary education as suggested in Tong and Phay (forthcoming).

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