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# Annual Development Review 2012-13



A CDRI Publication





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- 1 Economic Outlook and Development Challenges
- 2 Citizens' Perceptions of Their Responsibilities: Preliminary Analysis of D&D's Contribution to Reciprocal State-Society Relations in Battambang Province
- 3 Cambodia's Higher Education Structure and the Implications of the 2015 ASEAN Economic Community
- 4 Contracting Arrangements in Cambodia's Health Sector – Some Trends
- 5 Rising Food Prices in Cambodia: Causes, Impacts and Policy Responses
- 6 The Global Financial Crisis and  
Its Impact on the Rural Labour Market in Cambodia
- 7 Impact Assessment of Farmer Organisations on Agricultural Productivity:  
Evidence from a Rural Household Survey in Cambodia

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### **Annual Development Review 2012-13**

#### **Authors:**

Heng Seiha, Hing Vutha, Keo Socheat, Khiev Pirom, Lun Pide, Sen Vicheth, So Sokbunthoeun, Srinivasa Madhur, Vong Sreytouch, Theng Vuthy, Tong Kimsun

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#### **CDRI**

📍 56, Street 315, Tuol Kork  
✉ PO Box 622, Phnom Penh, Cambodia  
☎ (+855-23) 881 384/881 701/881 916/883 603  
📠 (+855-23) 880 734  
E-mail: [cdri@cdri.org.kh](mailto:cdri@cdri.org.kh)  
Website: [www.cdri.org.kh](http://www.cdri.org.kh)

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## List of Acronyms

AC	Agricultural Cooperative
AEC	ASEAN Economic Community
AOP	Annual Operating Plan
ASEAN	Association of Southeast Asian Nations
CC	Commune Council
CPA	Complementary Package of Activity
CPI	Consumer Price Index
CR	Consumption Ratio
CSF	Commune/ <i>Sangkat</i> Fund
D&D	Decentralisation and Deconcentration
DfID	Department for International Development, UK
DHE	Department of Higher Education
DK	Democratic Kampuchea
FA	Farmer Association
FG	Farmer Group
FGD	Focus Group Discussion
FO	Farmer Organisation
HC	Health Centre
HCMC	Health Centre Management Committee
HEF	Health Equity Fund
HEI	Higher Education Institution
HRINC	Human Resources Inc
HSSP	Health Sector Support Project
IIEP	International Institute for Educational Planning
ILO	International Labour Office
INGO	International Non-governmental Organisation
IRI	International Republican Institute
LMIC	Lower Middle-Income Country
MBPI	Merit-based Performance Incentive
MoEYS	Ministry of Education, Youth and Sport
MoH	Ministry of Health
MoI	Ministry of Interior
MoLVT	Ministry of Labour and Vocational Training
MPA	Minimum Package of Activities
NBR	Net Benefit Ratio
NGO	Non-governmental organisation
NIPH	National Institute of Public Health
OD	Operational District
OECD	Organisation for Economic Co-operation and Development
PDA	Provincial Department of Agriculture
PHD	Provincial Health Department
PIC	Public Information Centre



PMG	Priority Mission Group
PR	Production Ratio
PSM	Propensity Score Matching
ReBUILD	Research for Building Pro-poor Health Systems during Recovery from Conflict
RGC	Royal Government of Cambodia
RH	Referral Hospital
RTC/NC	Regional Training/National Centre
SDG	Service Delivery Grant
SNCE	Supreme National Council of Education
SOA	Special Operating Agency
UNFPA	United Nations Population Fund
VHSG	Village Health Support Group



# Economic Outlook and Development Challenges

by TONG Kimsun and Srinivasa MADHUR<sup>1</sup>

## 1.1 THE ECONOMY IN 2012

The Cambodian economy continued to gather momentum and remain robust. GDP in 2012 grew by an estimated 6.5 percent, somewhat slower than the 7.1 percent rate of the previous year yet vigorous by regional standards. Among the ASEAN countries, only Laos has grown faster than Cambodia over the last year. There were two distinctive offsetting trends at sectoral level. Growth in agricultural production, which had slowed to 3 percent in 2011 due to the unprecedented floods, reverted to its long-term trend rate of about 4.5 percent in 2012. In contrast, non-agricultural output growth slowed by about 1.4 percentage points – from 8.6 percent in 2011 to 7.2 percent in 2012. Within the non-agricultural sectors, construction – going by the rise in the number and value of construction projects approved in the first 10 months of the year – seems to have contributed strongly to GDP.

The slowdown in the non-agricultural sectors, especially in industrial output, was primarily due to the deceleration in export growth. Indeed, there is a strong correlation between Cambodia's exports and industrial performance (Figure 1.1). Continued global economic slackening coupled with weaker-than-expected outcomes in China and the ASEAN region led to a softening of demand for Cambodia's exports. Exports, which had risen by 36 percent in 2011, posted a much lower figure in 2012 – in the first 10 months of the year, the sector grew by about 26 percent. Garment exports, which account for more than 80 percent of total exports, grew at 21 percent in the first ten months of 2012 compared to 33 percent in the corresponding period of the previous year.

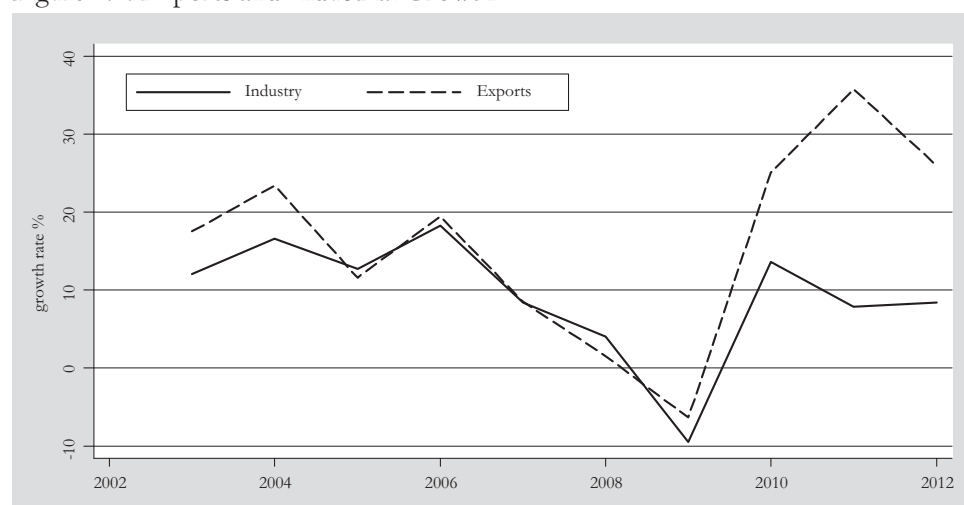
Although rice exports gained an impressive 39 percent in the first ten months of 2012, it was still a much slower rate than the triple digit growth of the previous year. In terms of quantity, rice exports were about 0.16 million tonnes in the first ten months of the year, up from 0.14 million tonnes in the previous year. On current trends, achieving the government's target of exporting 1 million tonnes of rice by 2015 would require a huge acceleration in rice exports over the next three years. However, it is encouraging that Cambodia has been able to diversify its rice exports away from traditional markets such as the European Union towards newer ones in the ASEAN region.

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<sup>1</sup> Dr TONG Kimsun is a research fellow and programme coordinator and Dr Srinivasa MADHUR is director of research at CDRI.

In the first ten months of 2012, there were 2.9 million tourist arrivals to Cambodia. Estimated at 3.5 million, tourist arrivals for the full year were up by 12.5 percent, a sharp deceleration from the 32 percent growth in the previous year. Estimates place tourism receipts at around USD2 billion, which means an almost halving of the growth in tourism receipts from 37 percent in 2011 to 20 percent in 2012. Cambodia's tourism sector is undergoing profound changes, with the composition of tourist arrivals shifting away from western countries towards Asian ones partly reflecting the rising prosperity in Asia in recent years. In 2012, for example, Vietnam, South Korea, China, Laos and Thailand constituted the top five countries from which Cambodia received its tourists.

Figure 1.1: Exports and Industrial Growth



Partly mirroring the deceleration in the industrial and service sectors, inflation moderated from about 5 percent in 2011 to 3.4 percent last year. The downtrend stemmed imports, but by less than the decline in export growth. As a result, the current account deficit increased from about 12 percent of GDP in 2011 to over 13 percent last year. Given that Cambodia's external debt is largely of long-term maturity and the country's foreign exchange reserves cover about 4 months' worth of imports, the widening current account deficit should not endanger macroeconomic stability. Moreover, International Monetary Fund (IMF 2013) predictions indicate that the current account deficit could gradually narrow in the near future.

## 1.2 ECONOMIC OUTLOOK FOR 2013

Being a small open economy, Cambodia's immediate outlook is contingent on the external environment. Indeed, the Cambodian economy seems to have embarked on a slower growth path since the 2008-09 global financial crisis, even if the sharp downturn of 2009 is excluded. Growth during the four years 2008-12 (excluding 2009) averaged about 6.6 percent, much lower than the average annual rate of 11 percent posted in the pre-crisis years of 2004-07. The slowdown is even sharper in the non-

agricultural sectors, particularly the industrial sector. Yearly industrial growth, which had averaged 14 percent during 2004-07, decelerated to 8.5 percent during 2008-12 (excluding 2009). The immediate economic outlook thus very much depends on the strength of the global economic recovery.

In its October 2012 World Economic Outlook, the IMF predicted global GDP growth of about 3.6 percent in 2013, a modest pickup compared to the estimated growth of 3.3 percent in 2012. Overall, this marks a significant downward revision of the IMF's global GDP forecast for this year from the estimates of 3.9 percent and 4.1 percent it made in July 2012 and April 2012, respectively. While growth in the United States is expected to hold up at a little over 2 percent in 2013, the euro zone's growth is forecast to be feeble, and Japan's GDP growth is expected to decelerate from 2.2 percent in 2012 to 1.1 percent this year. Forecasts for the emerging economies of Asia are somewhat better, but their high interconnectedness with both the United States and Europe means that none of them are likely to post sizeable growth acceleration this year. Overall, therefore, there is consensus that the global economy will continue to grow at a sub-par rate in 2013.

Given the rather subdued forecast for the global economy, a major turnaround in Cambodia's exports seems unlikely in 2013. As of now, the United States accounts for about 38 percent of Cambodia's exports (down from 70 percent in 2000), the European Union for about 35 percent (up from about 20 percent in 2000), and the rest of the world for the remaining 27 percent (up from 10 percent in 2000). The continued sluggish recovery in the United States and Europe thus does not augur well for Cambodia's exports. Going by current trends, exports are likely to go up by about 26 percent – similar to the 2012 figure. Tourism income could hold up for some time, partly because of the increased diversification of Cambodia's tourists in recent years. Implementation of the common visa programme between Thailand and Cambodia (ASEAN's version of the European Union's Schengen Visa scheme) introduced in December 2012 and the new flight routes of Tiger Airways between Phnom Penh and Singapore started in October 2012 should give a helping hand to the tourism sector.

With continued strong performance in the real estate and construction sectors, the country should be able to maintain non-agricultural GDP growth of about 7.5 percent. Disruption by major natural disasters aside, agricultural GDP growth of about 4.5 percent could reasonably be sustained. Overall GDP growth for 2013 could then work out to be about 7 percent. A growth rate of this magnitude should not put undue pressure on either inflation or the current account deficit. That should help maintain macroeconomic stability.

However, as the IMF has cautioned, several emerging trends – the rapid expansion of bank credit, shrinking fiscal space in the face of sluggish tax revenues, and the potentially large contingent liabilities (incurred by the government in relation to public-private partnership projects in the power sector) – could pose risks to macro-financial stability in the coming years. Certainly, financial regulators need to be vigilant and monitor credit developments more closely. However, the high rate of credit growth in recent years may have been largely due to structural reforms – the 2009 secured transactions law (removes barriers to using movable property as

collateral), the new regulation that allows credit bureaus to collect and distribute positive and negative credit information, and the establishment of the country's first credit bureau in 2012.

### 1.3 LONG-TERM VISION AND DEVELOPMENT CHALLENGES

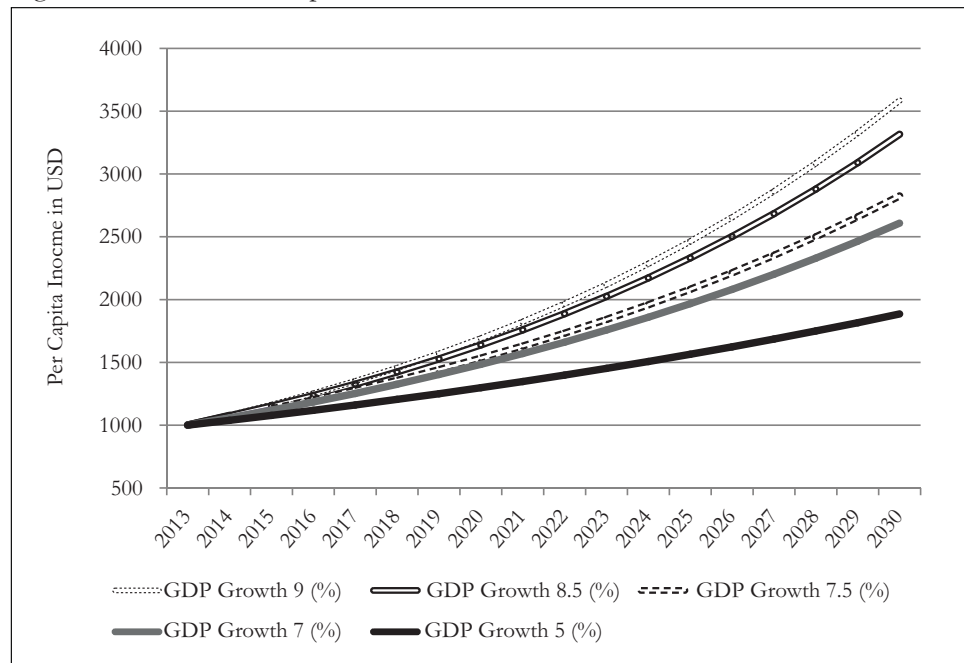
If the above GDP forecast is realised, Cambodia stands to reach a four-digit per capita income of about USD1000 by the end of this year – a feat achieved by Vietnam in 2008 and Laos in 2010. From a long-term perspective, that implies a quadrupling of the country's per capita income (at market exchange rates) in the last twenty years, from USD240 in 1993. Thus, Cambodia is now on the verge of graduating to the status of what the World Bank refers to as a lower middle-income country (LMIC) – a country with a per capita income of above USD1025 but below USD4035.

A recent IMF Working Paper (by combining a small quantitative macroeconomic model of the Cambodian economy with a more qualitative growth diagnostics approach) estimates long-term potential growth for Cambodia of about 7.5 percent with an associated investment rate of about 20 percent (Rungcharoenkitkul 2012). For every additional percentage point of growth over the 7.5 percent benchmark, the country's investment rate has to go up by about 5 percentage points. In other words, to raise GDP growth to about 8.5 percent, the investment rate has to increase to about 25 percent. Such a nexus between investment and long-term growth is broadly in line with global development experience.

“Strong, enduring growth requires high rates of investment. By investing resources, rather than consuming them, economies make a trade-off between present and future standards of living. That trade-off is quite steep. If the sustained, high growth cases are any guide, it appears that overall investment rates of 25 percent of GDP or above are needed... they often invested at least another 7-8 percent of GDP in education, training, and health..., although this is not treated as investment in the national accounts” (Commission on Growth and Development 2008: 34). The high-performing East Asian countries also maintained investment rates of above 25 percent, indeed closer to 30 percent, during their rapid growth phases (World Bank 1991 1993; Gill & Kharas 2007; Yusuf 2009).

If a GDP growth rate of 7.5 percent is maintained over the next 17 years, by 2030 Cambodia's per capita income will likely be more than USD2800 – close to a tripling of the country's per capita income. At that level, Cambodia's per capita income in 2030 would be similar to what Indonesia had attained by 2010. On the other hand, if a higher growth rate of 8.5 percent is achieved, per capita income in 2030 could reach about USD3300 – comparable to what Indonesia had in 2011. A 2012 CDRI paper calculated Cambodia's per capita income trajectory using three GDP growth scenarios for the period 2010 to 2030: (i) a high growth scenario of 9 percent, (ii) a moderate growth scenario of 7 percent, and (iii) a low growth scenario of 5 percent (Strange *et al.* 2012). Reworking the per capita income trajectory under these scenarios using the 2013 per capita income (of USD1000) as the base yields a 2030 per capita income of USD3600 in the high growth scenario, USD2600 in the moderate growth scenario, and USD1900 in the low growth scenario (Figure 1.2).

Figure 1.2: Income Per Capita under Alternative Growth Scenarios



Note that using the 5:1 investment-growth relationship, rapid GDP growth targeted at 9 percent under CDRI's high growth scenario would require raising the investment rate to 27-28 percent. Although Cambodia's investment and savings rates show large yearly variations, during 2005-10 they averaged about 20 percent and 15 percent, respectively. Hence, achieving GDP growth of about 9 percent would require a 7-8 percentage point increase in the investment rate. "Fast growth has a high price tag" (Yusuf 2009: 85). Therefore, growth that is much higher than the benchmark potential rate of 7.5 percent is not outside the realm of possibility, but it would require a substantial increase in Cambodia's investment rate. Considering this and other constraints, it is perhaps more pragmatic for Cambodia to set a long-term goal of maintaining GDP growth of 7.5 to 8.5 percent. That in itself is a strong growth target by any standards, global or regional. Anything beyond that range would likely put undue pressure on the country's savings-investment balance and could endanger macroeconomic and financial stability.

There is another possible snag in a country like Cambodia that has been prone to large income inequalities and income polarisation aiming for too high a growth path. Although the dynamics of the relationship between growth and income inequality are not yet fully understood, there is some evidence that many countries during their super-growth phases have seen worsening income inequality and stark income polarisation between the rich and the poor (Basu 2011; ADB 2012; Stiglitz 2012). It is also possible that by focusing too much on simply maximising gains from super-growth, policy makers risk depriving overall human development and social inclusion of the attention they deserve. If that happens, crucial areas such as health and education could be neglected – areas in which Cambodia has made impressive progress since the mid-1990s, though formidable challenges remain.

Despite the impressive improvements in a whole set of health indicators, Cambodia has a significant unfinished agenda – in containing contagious diseases, improving reproductive healthcare, reducing child mortality, and providing sanitation facilities and clean drinking water. In the area of education too, Cambodia has done admirably well in achieving close to universal primary education, but large gaps remain in secondary, tertiary and vocational education. Even within the country, poorer families have far less access to healthcare and education than richer ones, just as there are large disparities in access to healthcare and education between rural and urban households. Attending to these pressing human needs should thus take priority over a singular focus on achieving a super-strong GDP growth target. “Money matters, but the evidence shows overwhelmingly that great improvements can be achieved in other aspects of human development without going flat out for economic growth” (UNDP 2010:63).

Even realising a yearly GDP growth closer to 8.5 percent, the upper bound of the above range, would be quite challenging as it would require stepping up the investment rate by about 5 percentage points. Keeping the current account imbalance within manageable limits, in turn, would require a substantial increase in the country’s savings rate from the recent average figure of 15 percent, especially with the inevitable decline in external aid looming on the horizon. A large increase in the investment rate would also require substantial upgrading of infrastructure, major improvements in the business environment, huge investments in human capital, credible natural resource management, prudent macro-financial management, and, above all, continued strengthening of governance and institutions (Strange *et al.* 2012; CDRI 2013 forthcoming).

Without doubt, Cambodia has made huge strides in almost all these areas since the mid-1990s. The country’s extraordinary rebuilding of its economy, society, and political system from the ground up amid extremely adverse initial conditions in the mid-1990s to where they are today is almost unparalleled, whether one looks at it from a global or an Asian perspective. Indeed, Cambodia has travelled a long distance on its rather arduous development journey – not only in terms of growth, but also in terms of progress in poverty reduction, human development, gender equity, healthcare and education – but the distance to destination of, say, a poverty-free, healthy, educated, and inclusive society is also quite long (CDRI 2013 forthcoming).

Cambodia is thus at a critical juncture on its development path. The unfinished socio-economic development agenda is quite large and demands deft yet pragmatic handling. Cambodia will have to do this in the context of a post-crisis global economy that may remain less buoyant for some time to come. The regional setting is also undergoing profound changes with the emergence of Myanmar and the soon to be established ASEAN Economic Community – both of which may offer fresh opportunities for Cambodia but will also shrink the country’s policy space.



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# **Citizens' Perceptions of Their Responsibilities: Preliminary Analysis of D&D's Contribution to Reciprocal State-Society Relations in Battambang Province**

by HENG Seiha and SO Sokbunthoeun<sup>1</sup>

## **2.1 INTRODUCTION**

Decentralisation is well documented as the critical initial catalyst for refiguring state-society relations (Heller 2000 cited in Beall 2005:6; Dabo *et al.* 2010; United Cities and Local Governments 2008 cited in Sellers 2010:11). Improved relations are evident through the government/state moving closer to the people, the government/state becoming more efficient and effective, and the people's increasing democratic participation (Heller 2000 cited in Beall 2005: 6; see also United Cities and Local Governments 2008 cited in Sellers 2010: 11). In Cambodia, decentralisation and deconcentration (D&D) reform has reached full-scale with directly elected councils since 2002 at the commune/*sangkat* level, the lowest formal administrative unit, and indirectly elected councils at the district and provincial levels since 2009. This extensive reform involves significant delegation of functions, authority and resources from the central to municipal/district and provincial levels with the main aims of improving sub-national democratic development and delivering essential public services under a unified administration<sup>2</sup>.

This article discusses the extent to which D&D reform has influenced the emergence of reciprocal state-society relations in Cambodia. Contrary to the common belief that the emergence of state-society reciprocity is impeded by embedded cultural patterns that retain paternalistic views of the state and reinforce citizens' dependence on the state, we argue that resultant of various reforms and social and economic development over the last decade, state-society relations in Cambodia are indeed more dynamic than ever.

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<sup>1</sup> Heng Seiha is a research associate and So Sokbunthoeun is a senior research fellow at CDRI.

<sup>2</sup> It is "the arrangement to have a council at sub-national administration that is able to administer functions and resources, including its finances, personnel and assets and each council is capable of effectively coordinating services delivery and development within its jurisdiction, including that delivered by ministries and institutions of the government aiming at responding to the needs of local residents" (RGC 2008: vi-vii).

### 2.1.1 State-Society Relations and Reciprocity Defined

State-society relations can be defined as the interactions between the state and members of society that shape the way the state exercises public authority. Effective state-society relations are realised when the interactions between the state and its citizens are reciprocal, which means that the state performs its core functions to provide public goods and fulfil expectations, and the citizens have and fulfil their legal obligations to the state. In other words, state-society relations are “both sides of the relationship, and avoid an over-simple dichotomy between the ‘supply’ and ‘demand’ sides of governance” (IDS 2010: 10).

There are several definitions of a citizen; all of them, however, come down to rights and responsibilities.<sup>3</sup> A citizen has many rights. As Marshall (1977 cited in Higgins 1999: 289-290) argues, “...to be accepted as full members of society, that is, as citizens...” all members of society must have three fundamental rights: *civic and legal rights* (freedom of thought, speech, religious practice and property rights), *political rights* (to vote and to hold office) and *social rights* (to participate in the economic and social well-being of the community). With these rights, there are also responsibilities. Responsibilities as citizens fall into four main categories: paying taxes, obeying laws, serving in the military and contributing to the development of the country (Rugot & Usmanalieva 2007: 446-447). These responsibilities demonstrate citizens’ commitment and loyalty to the democratic political community and state, constructively criticising the conditions of and contributing to the quality of political and civic life (Patrick 2000), making them active participants in “governance and politics” for the good of the wider community and the state (Lister 1998: 228). Participation then is a point of entry, helping citizens to realise their rights and responsibilities (Lister 1998; Patterson 1999; Higgins 1999; Cornwall 2000).

Reciprocity is defined as a moral obligation and a mutually contingent exchange of benefits, gratification, reward or help between two or more units (Gouldner 1960; see also Cotterell *et al.* 1992). As a pattern of exchange, the concept of reciprocity entails an important moral element of the exchange-based belief of “duty and obligation”, e.g., the duty or obligation to repay (Fuller 1969 cited in Kildal 2001: 2-3). Gernsbacher (2006: 139) refers to this as “a relation of mutual dependence or action or influence”, or “a two-way street”. Given the mutual benefits or relations derived from reciprocity, many theorists have long argued for the important role of reciprocity in a society (Hobhouse 1906; Simmel 1950; Becker 1956 cited in Gouldner 1960: 161; see also Kolm 2008).

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<sup>3</sup> A citizen, defined by Aristotle in *The Politics*, is “an individual who is responsible to the community and carries out a duty to work toward the common good of the society” (Aristotle 1982 cited in Patterson 1999: 5). A citizen is an individual regarded as “an equal member of the community, accorded the respect and full rights of all other citizens, who actively assumes responsibilities for his or her participation” (Higgins 1999: 293). A citizen connotes “someone with rights, aspirations and responsibilities in relation to others in the community and to the state” (Eyben & Ladbury 2006: 5; see also Benequista 2010: 4; Cornwall 2000).

State-society reciprocal relations represent the “interactions between state institutions and societal groups to negotiate how public authority is exercised and how it can be influenced by people. They are focused on issues such as defining the mutual rights and obligations of state and society...” (DFID 2010: 15). Such reciprocity forms the backbone of a legitimate ruling system, where the state delivers benefits for its citizens and fulfils public expectations while citizens fulfil their responsibilities (*ibid*).

...people expect certain benefits from the state to be provided on an inclusive basis, including security, justice, enabling conditions for the pursuit of economic livelihoods, as well as public services such as education and health care. People also expect that states respect the free exercise of social, political and economic rights and that governance is based on accountability. In return, they have obligations to the state to pay taxes... (OECD-DAC 2008: 1)

In Hobbesian political theory, reciprocal relationships are crucial as a means to achieve and maintain the basis of social order and stability. Reciprocity between the state and society is the most important factor in the process of state building because the interaction between the state and society help the state gain legitimacy, consolidate security and political stability, and create the foundations of trust and social reconciliation (OECD-DAC 2008; DFID 2010). Further, in the context of reciprocal relations, the “bargaining between state and society actors is critical to stimulating collective action, aggregating and channelling demands, identifying common interests, and enabling the state to build consensus and respond effectively” (IDS 2010: 10-11).

## **2.2 ASSESSING RECIPROCITY BETWEEN THE STATE AND SOCIETY**

Reciprocity is assessed on citizens’ satisfaction with the services provided by the state and their perceptions of a citizen’s rights and responsibilities: to obey the law, pay legally imposed taxes, and participate in elections and community development (civic engagement). These variables play a crucial part in establishing and promoting reciprocity between the state and society. State-society reciprocity happens when citizens receive (public) services in return for tax payments to the state (Therkildsen 2001: 115). Participation in elections is seen as another form of reciprocity in return for “goodwill” gestures (Francis & James 2003: 336). People vote for a party because they expect something in return, e.g. changes in individual and community wellbeing through improved public goods or services (Kolm 2008: 44-45). Likewise, norms of reciprocity are reinforced or enhanced by civic engagement because it is through participation in voluntary activities or associations that trust and cooperation is built both among citizens and between the state and society (Ostrom 2000; see also Newton 1997). Further, the level of citizens’ satisfaction with public services is crucial to understanding reciprocity as it demonstrates the state’s performance perceived by the citizens.

The analysis and findings in this study draw on a systematic review of journal articles, reports, the authors' previous research and other commissioned studies as well as grassroots perception learned from semi-structured interviews with stakeholders (commune councillors, district councillors and district governors) and focus group discussions (FGD) conducted in selected communes/*sangkats* in Battambang province.

### 2.3 EXISTING VIEWS ON STATE-SOCIETY RELATIONS IN CAMBODIA: LITERATURE REVIEW

In developing countries, state-society relations are largely overshadowed by a “paternalistic” view of the state (Edigheji 2007: 60; see also Edigheji 2003: 75) that typically likens the state or government to parents and hence citizens to children (children are expected to do as they are told while parents are expected to provide for their children's needs). This view renders building reciprocal state-society relations in developing countries extremely challenging. In Cambodia, the literature commonly conveys citizens' paternalistic view of the state, but offers different perspectives on how such a view is sustained. These studies can be categorised into three schools of thought.

The first suggests that the paternalistic view of the state is closely linked to or derived from the strong influence of “traditional Buddhist/monarchist cultural patterns” on Cambodian society, viewing the government/state like a father and the people like children (CAS 2001: 26). In other words, the government is expected to fulfil the citizens' needs. Malena and Chhim (2009: ii) also claim that despite the evolving citizen-state relations in the country, “many Cambodians, especially older people and those living in rural areas, have a highly paternalistic view of government”. Research by the Centre for Advanced Study (CAS 2006) also confirms the continued dominance of such a standpoint at grassroots level, suggesting that the paternalistic view of the state is not new, but culturally embedded in society.

The second claims that Cambodian history also plays a role in reinforcing the paternalistic view of the state. Decades of war and internal conflict have left Cambodia one of the world's poorest countries.<sup>4</sup> There is a high degree of dependence on the state (as parent) for resources or materials. As argued by Ledgerwood and Vijghen (2002: 144), “[b]ecause of the massive destruction during the DK [Democratic Kampuchea] period and the civil wars, Cambodians into the mid-1990s were much poorer than they had been in the past... [Thus] ...villagers were ever more dependent ...than they had been before the revolution.” Scheper (2005 cited in Van de Sande 2010: 30; see also Sinanan 2011) shares a similar view claiming that the two decades of conflict and social upheaval destroyed social structures and state-society relations, and made Cambodians “more isolated and dependent on their government”. Consequently, the people tend to be appreciative of whatever they are offered by the state or high-ranking officials. Hughes (2009: 221) observes, “villagers' role is confined to applauding and expressing thanks and happiness”. For instance, “...each and every one of the people showed

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<sup>4</sup> Cambodia's poor number almost 4.8 million, and 90 percent of them live in rural areas (IFAD 2007).

their great joy that His Excellency helped to develop the roads and bridges” (Hughes 2006: 478).

The third school centres on political connection (e.g. electoral politics), which helps to perpetuate dependency. Cambodia’s war-torn history has dragged it into being one of the developing world’s most heavily *aid-dependent* countries with nearly half of its annual budget coming from foreign aid (Ear 2006; Ek & Sok 2008; UNDP 2010). Such a high level of aid dependency has important implications for state-society reciprocal relations. This aid dependency condition is not unique to Cambodia. In Africa, Carol Lancaster (1999; see also Sogge 2000: 206-209) argues, too much dependence on foreign aid has resulted in the destruction of reciprocity between states and their people. This is because governments or states that finance their activities through fees and taxes collected from their people at least have to consult the tax/fee payers. Paying taxes and fees gives people a strong sense of ownership and civic responsibility, whereas those dependent on foreign aid focus attention on the source of that aid (*ibid*). In the case of Cambodia, it is clear that aid dependence has created a politics that confides in and prioritises “the individual and individual action rather than the public sphere and the fostering of collective action” (Hughes 2009: 22). In other words, this kind of aid dependent environment promotes social alienation and fragmentation of local political systems, thereby enabling domestic elites – acting as gatekeepers – to capture international resources and control aid flows for their political gain or advantage. This pattern accelerates and deepens the already problematic dependence on top-down resource allocation or aid (Hughes 2009: 21-22), and further entrenches the existing cultural and historical pattern of people’s dependence on the state or high-ranking figures for their survival.

The cultural patterns that retain paternalistic views of the state and the various factors that reinforce citizens’ dependency appear valid to a certain extent. However, too much emphasis on this may have downplayed the changes that have taken place as a result of reforms and transformation thus far.

## **2.4 PRELIMINARY FINDINGS**

### **2.4.1 Citizens’ View of the State**

Embedded hierarchical cultural patterns still influence the way citizens perceive the state. Findings from field interviews and FGDs suggest that citizens continue to retain a paternalistic view of the state, yet there is more reciprocal interaction between the citizens and the local councils and people’s expectations of the state have changed. Asked whether they view the government as a father, boss, or service provider, respondents commonly answered “father” and pointed out that unlike a boss or dictator who treats their workers like slaves, a father serves and protects his children. The government was viewed as a boss in the 1980s when people were forcefully conscripted or ordered to carry out specific tasks. Thus, there is a general preference to view the state as “father” and citizens as “children”, though there is an expectation that the state, like a dutiful father, will perform well and guard the interests of the people. As a villager explained,



In the past, we were afraid of the authorities and tried to avoid them; however, since the commune elections in 2002, fear of the authorities has diminished. In fact, now when we have problems or need help, we can and dare to approach the authorities (commune councillors) anytime and anywhere... (Villager in Battambang, FGD, 11 July 2012)

The change in people's expectations of the state since the introduction of D&D is related to the actual changes in the way the commune is governed. Commune councillors (CCs), who were officials under previous regimes, also see a substantial change in their role. As a commune chief in Battambang explained,

...in the past, the state/government (i.e., commune) was seen as a guard fighting against guerrillas; in contrast, the commune is now seen as a local development agent focusing on development and people's well-being. (Commune chief 1 in BTB, interview, 9 July 2012)

Another commune chief expressed a similar opinion,

Before decentralisation reform, the commune did not need to consult the people regarding local development, and just waited and received orders from the central government in a top-down fashion. At present, every commune needs to consult or engage people in local development, for example, the 5-year Development Plan and 3-year Rolling Investment Programme (bottom-up approach). This kind of bottom-up approach is so important because the commune can respond to what people really want or need, and the people in return support projects, resulting in the success and sustainability of that project. (Commune chief 2 in BTB, interview 9 July 2012)

#### **2.4.2 Citizens' Attitude Towards Their Responsibilities**

*....Tax payment, match-funding, and fee collection*

People's overall attitude to contributing cash in the form of matching fund payments, user fees and taxes was neutral. They have contributed cash or in-kind to community development projects in the belief that doing so would enable their local government to respond to local development needs. Cash contributions to date have been voluntary or in the form of match funds (at 3 percent of total costs) used for project-specific development initiatives; most people view this as a citizen's duty. Many people also said they would be willing to contribute in a more systematic way, in the form of annual land tax for example. Asked about how they would react to possible taxation instead of irregular on-demand project-specific contributions, FGD respondents said they would gladly fulfil their obligations as long as the required payment is affordable and a major portion of the revenue is kept for local development (including infrastructure – roads, schools and hospitals, and social services – education, health and sanitation) and the maintenance of existing projects.

Citizens' preference for local tax revenue to be kept and used locally is associated with the increased level of trust in local officials, which is largely a result of D&D reform bringing the government closer to the people and promoting local councils' accountability and responsiveness to citizens' needs. In our FGDs, rural and urban respondents unanimously agreed that they have more trust in local councils than in other levels of government within the administrative hierarchy. This high level of trust is associated with people's proximity to and familiarity with their local councillors.

...we trust the local government the most because they stay closer to us. We know those local officers, especially commune councillors and village chiefs, quite well. In particular, we understand that commune councillors are functioning as our representatives. It is thus easy for us to approach these people for help, and more importantly, it takes less time for them to respond to our requests ...higher levels of government are far away and we do not know who or how to approach them when we need support/help.... also, they take longer to respond. (FGD with local people, commune 2, Battambang, 11 July 2012)

To date, no tax has been levied at the local level. Citizens' cash contributions to local development projects may be minimal given the matching fund payments of 3 percent, suggesting unequal reciprocity between what the state provides and what the citizens contribute. However, match-funding has a spillover effect on citizens' attitude towards overall development in their locality and has helped pave the way for reciprocal state-society relations. A commune chief explained that he now finds it easier to get people to make the 3 percent matching fund payments and this makes him hopeful for larger contributions in the future. In his own words,

Since my second term–2007, the people in my commune have been more aware of their rights and responsibilities. The commune now finds it much easier to collect contributions or fees from people. In other words, the people understand the significance of their contribution and realise that in the end, this road or that project belongs to their community. The people contribute to building new and maintaining existing infrastructure. (Commune chief 2 in BTB, interview 9 July 2012)

Contributions in some rural communes have increased. A commune chief explained that people in his commune had made a significant contribution to a local development project, estimated at no less than 50 percent of the Commune/*Sangkat* Fund (CSF) per year. He pointed out that the construction of a 15-kilometre road was paid for solely by local people (commune chief 1 in BTB, interview 9 July 2012).

Citizens' greater cash contributions and participation may be attributable in part to the presence of local associations, which in some rural communes have helped to generate large donations from people for community development projects other than those funded by the CSF (commune chief 2 in BTB, interview 9 July 2012). In various communes, a range of informal associations (water-user association) and groups (rural road guard, clean water-user, and rice storage groups) have been collectively created to protect commune projects, to deal with local social issues or to help each other. These groups and associations help to bridge relations between people and local authorities



(especially commune councillors and village chiefs), and enable the authorities—now with increased support from the people—to perform their duties better.

The absence or limited presence of local associations may partly explain why it is more difficult to collect matching fund payments and contributions in urban areas. A *sangkat* chief in Battambang complained,

People's contribution is an issue for the *sangkat*. Those who do not directly benefit from the project are unhappy to contribute. However, those who directly benefit are happy to contribute cash and in kind. To overcome these challenges, matching fund payments were collected from direct beneficiaries only. (Commune chief/*sangkat* chief 3 in BTB, interview 10 July 2012)

From the commune councillors' perspective, the more people are attached to groups/networks/associations, the better a village or commune will be because the people's involvement (including, but not limited to, money, labour and materials) helps local development to become more sustainable. Willingness and volunteerism form an important part of citizens' associational life and are crucial to more reciprocal state-society relations.

#### *....electoral participation*

There was general enthusiasm among FGD participants about their participation in elections and their ability to select their leaders. This enthusiasm is related to their familiarity with the electoral process since the first national elections in 1993 and the cessation of politically motivated violence. They explained they understand their rights well, especially the right to vote, the right to participate in meetings, and the right to express their opinions, among others.

...we have the right to participate in elections to select our local representatives. We have the right to criticise them if they do not perform well. The key role of the councils is to serve the people or the people's interests.

Further, despite the notable decline in overall voter turnout for local elections from 87.5 percent in 2002 to 67.8 percent in 2007 and then 63.8 percent in 2012, the number of voters during CC elections in the study communes has increased over time. A commune chief explained,

...the number of people coming to vote for their representatives has increased gradually. There were 3379 voters in 2002, 3691 in 2007, and 4394 in 2012. The increase in the number of voters was attributed to political parties' lobbying and people's better understanding of their rights and responsibilities. (Commune chief 1 in BTB, interview 9 July 2012)

Reciprocity features prominently as people exercise their right to vote. People participate in the selection of their local councils in anticipation of improved public services delivered by the elected councils. They understand that their votes can put under-performing officials out of office. However, this form of reciprocity is

personalised. The meagre CSF prevents elected officials from responding to all local needs. Local leaders frequently seek funding from other sources including *soboroshun* (benefactors), political parties, and nongovernmental organisations (NGOs). Elected officials' heavy reliance on private sources of income for promised public goods and services creates a complex web of personal reciprocities between citizens and elected officials and between elected officials and their sponsors (linked to broader patron-client politics), rather than a formal reciprocity between the citizens and the state. This differs from an established democracy where promised public services are fulfilled through taxpayers' money and there is formal reciprocity between the citizens and the state.

....community development activities

Community development planning is a participatory development tool, which enables locally elected councils to understand what people need and builds trust between local people and their councils. It is also the opportunity for local people to participate in community project and budget planning, to get involved in local development by expressing their preferences about community development needs, and to be informed about council activities. As a commune chief explained,

... people's participation in commune development planning makes it easier for the commune (1) to prioritise development needs, (2) to mobilise local generous people, local associations, and other donors including NGOs and INGOs to supplement the limited CSF, and (3) to deal with complaints from those who do not benefit directly from the projects. Everyone is kept informed about project priorities and which one should be implemented first. (Commune chief 2 in BTB, interview 9 July 2012)

FGD participants also maintained a rather neutral view about their participation in local activities, accepting that it is “their obligation to participate in their local community development.” They feel that this participation will enable their councils to understand what they need, and hence better serve the community. In one FGD, seven of the eight participants had participated in specific community development activities because “they felt obliged to (for the sake of the community)”, while the remaining person did so because he was “fearful of the state”. He explained that fulfilling specific responsibilities required by the state is “a must” because the state has the power to sanction non-compliance (FGD, 11 July 2012). This remark suggests that even though the milieu of fear, repression and coercion has dissipated, cultural patterns and experience still influence the way people think to the detriment of meaningful participation.<sup>5</sup>

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<sup>5</sup> Previous studies found that villagers' perceptions of local authorities have changed significantly. “The way in which local people are expected to show *korob*, *kaud*, *klach*—respect, admiration, fear—to local authorities has also shifted. Villagers' dealings with these authorities used to be characterised by *klach*, and in good cases some *korob*, but very little *kaud*; now, there is a lot of *korob* and some *kaud*, but not so much *klach*” (Öjendal & Kim 2006: 157–158; see also Kim & Öjendal 2009).

The obedience, and to some extent the fearfulness, exhibited by FGD participants and interviewees reflects a condition embedded in the Cambodian cultural hierarchy as well as the impact of a long period of suppression under authoritarian rule that has prevented meaningful participation. Previous research studies show that Cambodians are generally reluctant to participate in public activities and meetings. As Kim (2011: 184) puts it, "... motives and the implicit views behind this reluctance to express themselves in the public sphere, but almost everyone said that this is the norm, a result of being shy ...".

People's reluctance to express their views was evident also in a survey, which found that only 5 percent of 2341 respondents had spoken in a meeting in the past year (EIC 2010: 15). Similarly, a public opinion poll taken by the Centre for Advanced Study and the World Bank found that "less than 10% of people (and less than 1% of women) who attended meetings spoke up, and even smaller numbers dared to raise problems, ask questions or make a demand" (cf. Malena & Chhim 2009: 30).

Previous studies suggest most people simply were not present in the development planning (council) meetings due to their poverty conditions (CAS 2007). Poor living conditions discourage participation. Despite the policy reforms that have reduced the overall poverty rate, many rural Cambodians are still poor. This obliges them to devote more time to making a living rather than prioritising public activities (COMFREL 2007; EIC 2010; KAS 2007). An added constraint to participation in development planning is the inability of the council to respond to citizens' needs. A majority tend to judge responsiveness based on material outputs. As discussed earlier, the very limited funds allocated for local development inhibit councils' ability to respond to development needs, creating resentment and reducing citizens' interest in participating. This was also confirmed from our fieldwork observations.

The constraints to citizens' participation detract from the genuine reflection of local needs in community development and hinder the prospects for building cooperation between the citizens and their respective councils.

#### **2.4.3 Citizens' Satisfaction with the State's Services**

The FGDs in Battambang generally revealed citizens' high level of satisfaction with state services. Most participants made very few references to any social services, but pointed out that the country is at peace and view the visible improvement in physical infrastructure (particularly roads) as a key contribution or service provided by the state. Such a high level of satisfaction can be attributed to the fact that at no time over the last 30 years did Cambodia have a high level of public goods. Instead, the country was beset by prolonged civil war and political instability with disastrous consequences. People, particularly those over the age of 50, remain fearful of the turbulent past. Their memory of hardship instils in them appreciation and gratitude for the stability, peace and progress that Cambodia has achieved. This generates minimal expectations of what the state should deliver.

Citizens' high level of satisfaction with the state's service provision is generally confirmed in recent studies. A Citizen Satisfaction Survey carried out by the Economic

Institute of Cambodia (EIC 2010: 32) reveals that CCs are perceived as being more responsive to citizens' needs than before:

Thirty-four percent (34%) rated the council as “very responsive” and a further 53% chose “responsive” with only negligible numbers of citizens selecting the “very unresponsive” answer. The number selecting “very responsive” is significantly higher than in the baseline survey (24%).

The International Republican Institute's (IRI 2011) survey of Cambodian public opinion shows a high level of citizens' satisfaction with state services, with 81 percent of 2000 randomly selected citizens reporting that the country is moving in the right direction. The high level of satisfaction is related to general improvements in physical infrastructure development including “more roads built” (72 percent), “more schools built” (51 percent) “more health clinics built” (24 percent), and “the country is at peace” (9 percent).

## **2.5 THE CONTRIBUTION OF D&D TO LAYING GROUNDWORK FOR RECIPROCAL STATE-SOCIETY RELATIONS**

Citizens' perceptions of their rights and responsibilities suggest that formalised state-society reciprocal relations could emerge at the lowest level of government, i.e. the commune and *sangkat*. Although Cambodians retain a paternalistic view of the state, there is a groundswell of expectation that the state should behave well and guard the interests of its citizens. There is an increased level of trust between the people and their local councils, and the people are more willing to bear more responsibilities as citizens within their means. The people generally trust their local councils more than any other high-level government authority and prefer local councils to keep locally collected tax revenue (if imposed) for the development of their respective communities. Broader revenue sources at local level stand to transform the complex web of personal reciprocity between the people and their locally elected councils and between the locally elected councils and their sponsors. Likewise, improvements in living standards and gradually changing cultural view due to exposure to public meetings under D&D framework will likely encourage greater citizen participation, allowing for better cooperation between the citizens and their councils.

The changing local landscape can be attributed to D&D reform, which because of people's increased proximity to local government and higher awareness of their rights and roles as citizens has brought about general improvement in state functions that respond to local needs. Key contributions of D&D reform include:

### **2.5.1 Improved Accountability, Transparency, and Responsiveness**

Accountability and transparency play a key role in enabling the emergence of reciprocity. The citizens explained that they trust their local councils because of the transparent and accountable use of public funds and because the CCs are close to the people. The CCs' adherence to principles of accountability and transparency is crucial to building trust between citizens and local councils (the lowest level of government administration). This is particularly significant, as evidenced by the increased level of

awareness among citizens about their rights to hold public officials accountable. The importance of accountability and transparency to citizens' perception of the state is related to the government's service provision and responsiveness to people's needs, which have improved over time. The CCs commonly claim that being downwardly accountable and transparent by keeping citizens informed about critical decisions or plans affecting the locality, sharing information with people and allowing them to attend CC meetings are precursors to reciprocal state-society relations. This is borne out by CDRI's baseline survey of D&D reform, which indicates that 70 percent of 531 commune councillors claimed to be primarily accountable to the people within their jurisdiction (Chheat *et al.* 2011).

### 2.5.2 Improved Awareness about Their Rights and Participation

There is a noticeably high level of awareness among the citizens about their rights and obligations as a result of D&D reform. In a survey carried out by Kim and Öjendal in 2009, more than 90 percent of the 583 voters interviewed firmly stated that they could hold their commune councils accountable by exercising their rights to vote incompetent councillors out of office (Kim & Öjendal 2009: 117; see also Kim 2011). The generally improved level of awareness among the people was also noted in our fieldwork. A commune chief explained,

Since the introduction of D&D reform, the people's attitude has changed a lot. For instance: (1) in the past, the people respected and sought help and support from traditional leaders like *achbar*, but now they respect and approach commune councillors and village chiefs instead; (2) in the past, people preferred to have nothing to do with the state, but now they understand that they have a role to play in directing the state's services to match their needs; and (3) people no longer fear the authorities, for example they dare to blame any wrongdoing officials, particularly commune councillors and village chiefs. (Commune chief I in BTB, interview 9 July 2012)

Through the provision of participatory local governance, local citizens are allowed to participate and express their preferences in relation to community needs and local development. Local people can participate in project and budget planning, get involved in local development, and particularly stay informed about CC activities. However, citizens' participation in development planning at CC meetings has been limited. In a public opinion poll conducted by CAS (2007), 71 percent of a random sample of 900 "ordinary citizens" said that they had never attended a commune meeting. Further anecdotal evidence from various communes suggests that people's participation in CC meetings has declined.

## 2.6 CONCLUSION

Since the initial implementation of decentralisation in 2002, society and the state appear to have reconnected. Rural Cambodia is becoming "more plural, more complex and more open, and at the same time less predictable, less docile and less easily subdued" (Öjendal & Kim 2006: 526). Relations between the state and people also appear to have become closer. At the same time, the state through its agencies with given budgets has tried to respond to the needs of the people (Öjendal & Kim

2006; Kim & Öjendal 2009; Heng *et al.* 2011). Further, through the reform process, citizens are willing to contribute to the state. Today, people's key contributions to local government are small including personal contributions in cash and in-kind to local development projects. However, they are willing to make regular contributions in the form of tax payments (e.g. on land) if the revenues are locally held and used in a transparent manner for development in their locality. This shows that the foundations for reciprocal state-society relations have already been laid.<sup>6</sup>

The challenge ahead is how to tighten the connection between the state and society and transform it into a formal reciprocal one. Accountability, transparency and responsiveness on the part of the state and improved awareness and participation on the part of the citizens are two indispensable factors for further binding the connection between the state and society. Further improvement in CCs' accountability, transparency and responsiveness will depend on citizens' awareness and their ability to participate meaningfully in local development planning, and CCs' ability to deliver public goods and respond to local needs.

Although there is an observable improvement in awareness among citizens about their rights and responsibilities, knowledge gaps remain and the level of knowledge per se is limited. A common request from local councillors during our recent field trip is that "people should be provided with more education/training related to their rights, roles and duties as a citizen." Likewise, the limited resources allocated to local councils inhibit their ability to respond to people's needs, thereby greatly reducing their ability to be accountable and responsive. The overwhelming majority of people tend to judge responsiveness based upon material outputs delivered by the CCs. However, the limited funding available for local development projects cannot possibly respond to all the needs raised by the people. The CCs' inability to respond to people's needs creates resentment and reduces people's interest in participating (Kim & Öjendal 2007: 41). The limited CSF has made local leaders dependent on *soboroschun* and party-financed development schemes, thus contributing to the emergence of a complex web of personal reciprocities. Dependency on informal sources of financing raises questions for broader accountability issues.

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<sup>6</sup> The authors acknowledge that reciprocity has long existed in the form of citizen-citizen relations within a Cambodian village through patron-client networks and kinship relationships (Vijghen & Ly Sareoun 1996; Ledgerwood & Vijghen 2002). This study instead focuses on relations between the state and society.



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# **Cambodia's Higher Education Structure and the Implications of the 2015 ASEAN Economic Community**

by SEN Vicheth<sup>1</sup>

## **3.1 INTRODUCTION**

Cambodia, like its contemporaries, is striving to improve and expand its higher education system to meet the rising needs and aspirations of its people. Unlike its peers, though, the country faces a unique challenge in strengthening its higher education sector, partly the result of protracted civil war but particularly because of the decimation of both hard and soft education infrastructure including human resources under the Khmer Rouge regime. Over the past two decades, Cambodia has seen an uncontrolled expansion of its higher education system in terms of student enrolments and higher education providers. With the privatisation of higher education provision allowed in 1997, the expansion rate has been even more rapid. The number of students enrolled in higher education institutions (HEIs) has doubled from 117,420 in academic year 2006/7 to 245,329 in 2011/12 (You 2012). The number of HEIs in the country has increased drastically from 10 in the 1990s (Pak 2011) to 97 (38 public HIEs) in the first quarter of 2012 (You 2012). This rapid expansion of the system and the enrolment rate has critical implications for the higher education system itself, the higher education providers, the students and their families, and the country's labour force. With the ASEAN Economic Community (AEC) poised to take off in 2015, there are even more grave ramifications for Cambodia and its higher education system.

This article aims to provide an overview of the governance structure of Cambodia's higher education system and the implications of this structural design for all stakeholders and the country's economy. It also examines the significance of the 2015 ASEAN Economic Community for Cambodia's higher education system. This paper draws on some of the data and the insights gained from a series of interviews conducted during the first half of 2012 for a study on the governance of Cambodia's higher education system (Sen & Ros 2013 forthcoming). The interviews were conducted with high-level policy makers in government ministries/departments, representatives from development partners, scholars and researchers, senior national and international education consultants, and the private sector. The paper also builds on research reports, policy documents and other publically accessible information.

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<sup>1</sup> Sen Vicheth is a research associate at CDRI.

### 3.2 STRUCTURE OF CAMBODIA'S HIGHER EDUCATION SYSTEM

Cambodia's higher education landscape is composed of more than 10 government agencies that supervise close to 100 HEIs and their many provincial branches (see Table 3.1)<sup>2</sup>. The most important feature is that despite a large number of parent ministries or agencies, there is no single governing authority or designated body to coordinate them all, particularly in the areas of national education policy formulation, implementation and monitoring (Sen & Ros 2013 forthcoming)<sup>3</sup>. Although it may seem that the Department of Higher Education (DHE) of the Ministry of Education, Youth and Sport (MoEYS) plays a major coordination role because of the large number of HEIs under its supervision, its role is actually very limited. A high-ranking MoEYS official notes that the collaboration between DHE/MoEYS and other parent ministries, usually based on the latter's request, is limited to certain tasks such as selecting students for government-funded scholarships, providing technical assistance on specific courses, and some policy dialogue. In spite of the central role of DHE/MoEYS in proposing and formulating key national education policies, it seems to lack sufficient authority to oversee and monitor the progress of education policy implementation. This indicates the leverage or power that DHE/MoEYS has vis-à-vis other parent ministries. It also implies the absence of a coordination body to ensure smooth interaction among parent ministries and monitor the implementation of major education policies.

The overall governance of the majority of HEIs and training institutions falls under two separate ministries – the Ministry of Education, Youth and Sport (57) and the Ministry of Labour and Vocational Training (MoLVT) (19) (see Table 3.1). Although these are two of the most important ministries responsible for higher education and training in Cambodia, the Cambodian Education Law, adopted in December 2007<sup>4</sup>, does not provide for the separate role of the MoLVT. This has consequently generated “a high level of competition, and difficulties in developing strong cooperation links between these Ministries” (UNDP 2011: 43), indicating a vacuum in the current legal framework which seems to have had a major impact on the entire higher education system in Cambodia.

The Cambodian Education Law also covers the establishment of the Supreme National Council of Education (SNCE) as a body to propose education policies and long-term strategies that respond to the country's social and economic needs, evaluate the education system's performance, and determine and mobilise the resources required for the sector (RGC 2007). Though not explicitly stated, the SNCE, or one of its units, will probably play some sort of advisory role in coordinating all the parent

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<sup>2</sup> This data is from a source made available at the beginning of 2012. At the time, a few other government ministries were rumoured to be planning to start HEIs. By now there are probably even more government agencies supervising more HEIs.

<sup>3</sup> Many of the arguments made in this paper are based on the forthcoming CDRI working paper *Anatomy of Higher Education Governance in Cambodia* by Sen Vicheth and Ros Soveacha.

<sup>4</sup> The MoLVT was established by the government in 2005 (RGC 2005). It is surprising that the Cambodian Education Law does not have separate provision for the MoLVT's responsibilities despite its major role in providing education and training.

ministries and institutions supervising all HEIs in the HE sub-sector. At the time of writing, however, the SNCE still did not exist. This seems to have crippled the national coordination of parent ministries, leaving the higher education system struggling to meet the rising demands of students who aspire to further education, and ill-equipped to respond to labour market needs.

Table 3.1: Number of HEIs under Parent Ministries/Institutions

No.	Parent ministries	Number of HEIs	
		Public	Private
1	Ministry of Education, Youth and Sport (MoEYS)	8	49
2	Ministry of Labour and Vocational Training (MoLVT)	9	10
3	Ministry of National Defence (MoND)	5	0
4	Ministry of Agriculture, Forestry and Fishery (MAFF)	3	0
5	Ministry of Religious Affairs (MoRA)	2	0
6	Ministry of Health (MoH)	2	0
7	Ministry of Interior (MoI)	2	0
8	Ministry of Culture and Fine Arts (MoCFA)	1	0
9	Ministry of Economy and Finance (MoEF)	1	0
10	Ministry of Public Works and Transportation (MoPWT)	1	0
11	Ministry of Social Affairs, Veterans and Youth Rehabilitation (MoSAVYR)	1	0
12	Ministry of Industry, Mines and Energy (MoIME)	1	0
13	National Bank of Cambodia (NBC)	1	0
14	Office of the Council of Ministers (CoM)	1	0
Total		38	59

Source: You (2012: 3)

Note: provincial branches of these HEIs are excluded

What are the major implications of the current design of Cambodia's higher education system where there is a multiplicity of competing powers at play and there exists no designated governing authority to coordinate all the parent ministries or institutions supervising HEIs? Sen and Ros (2013 forthcoming) note that the nature of the current governance structure of Cambodia's higher education has critical implications for resource use and coordination, education policy implementation and monitoring, quality and relevance of education to the economy and labour markets, and graduate employability and associated social issues.

### 3.2.1 Coordination and Resource Use, Education Policy Implementation and Monitoring

The multiplicity of governing authorities in Cambodia's current higher education landscape indicates structural fragmentation. The many parent ministries supervising HEIs seem to be disconnected bodies operating independently in the broad realm called higher education. It is not that all the parent ministries and their HEIs need to be (re)centralised. Rather, it is essential that a state body provides overall education

policy direction and coordination at national level to ensure coherence in the country's higher education system and that key education policies contributing to the country's labour force development are effectively implemented and their progress monitored. The absence of a designated body to play this role, one that has sufficiently recognised authority to monitor the performance of and demand accountability from the other parent ministries and their HEIs, has made "coordination of the higher education system very difficult for the government" (UNDP 2011: 43). Human Resources Inc. Cambodia (HRINC 2010: 6) advances a similar point, emphasising that Cambodia's current higher education structure makes it "difficult to coordinate among government agencies in terms of scope of work, administration overlap and information sharing". The fact that there is no clear single governing body to play the coordination role and that there is no clear formal mechanism for all parent ministries to interact with one another renders mutual coordination and information sharing uneven. It seems that the only occasions the parent ministries interact are during inter-ministerial meetings at the Council of Ministers when HEI issues are on the agenda. Thus, because of the large number of HEIs under the supervision of MoEYS and MoLVT, HRINC recommends the two develop closer collaboration, especially on "curriculum development, data collection or sharing of market related information" (*ibid*: 35).

The design of the current higher education system also has a key implication for resource use. It does not offer an effective and efficient way of allocating and using available resources, resulting in a waste of limited resources and a duplication of roles and responsibilities. A high-ranking government official notes that the fragmentation of the higher education system in the presence of too many parent ministries without an umbrella body makes it difficult to invest in higher education improvements because scant means have to be split among many. This severely affects the quality and effectiveness of the implementation and monitoring of education policy at national level.

Which single body has sufficient authority and is recognised by other parent ministries to oversee the development and the implementation of national higher education policies? Theoretically, the DHE of MoEYS is supposed to play this fundamental coordination and policy implementation and monitoring role. In practice, however, based on a series of interviews with key informants in government ministries and other stakeholders, DHE/MoEYS seems to have little authority to monitor the performance of HEIs supervised by other parent ministries or institutions. Many key informants expressed high hopes that the SNCE would take on this vital role because it is mandated by law to advise the government on education policy improvement and implementation, as well as some sort of coordination role. However, SNCE is not fully functioning yet, despite its establishment being legislated in the 2007 Education Law. This scenario seems to have stranded higher education policy implementation and monitoring in a vacuum, leaving each parent ministry and its HEIs completely free to go their own way in terms of education policy implementation, which may not necessarily reflect or address national socio-economic development priorities. In the long-run, this could gradually weaken the entire higher education system and lessen the country's economic competitiveness. "In that case market forces will identify and employ the graduates of those institutions and those programmes which best meet its

needs. The remaining institutions and programmes will gradually go to the wall for lack of students willing to pay their fees, in the process disillusioning the large number of parents and voters who have wasted their investments in higher education” (Sen & Ros 2013 forthcoming).

### **3.2.2 Relevance of Education and its Quality**

A unifying regulatory governance authority is essential for guiding collaborative efforts in overall human capital development to supply labour market demands and to sustain and accelerate the country’s economic growth. In the absence of such a body, there is a tendency for HEIs to offer courses that are highly demanded by students who can afford the tuition fees but that are not necessarily relevant to labour market needs, which neatly describes a phenomenon unique to Cambodia’s higher education landscape. This predicament is even more apparent in the current situation where the State provides little funding to public HEIs and practically none to private HEIs, diminishing the State’s influence over the programmes that HEIs offer. This can only worsen the present skills mismatch in Cambodia, where there is an oversupply of skills in certain fields and an undersupply in key areas of national economic development. The shortage of skilled labour force in priority areas will cause economic slowdown and low economic competitiveness in the long-run.

There are also implications for the quality of higher education provided to aspiring students. In a situation where there is no designated body to ensure effective education policy implementation and to monitor HEIs’ performance goals vis-à-vis national development priorities, there is a tendency for HEIs to compromise the quality of education by cutting corners in order to gain more revenues, to remain in business longer, or to delay bankruptcy. The situation is even more precarious in Cambodia where the accreditation body (Accreditation Committee of Cambodia) is still providing foundation year accreditation (programme accreditation) and not yet moving towards institutional accreditation, even though it has been in existence for about a decade now (see Pijano 2012). The issue of the quality of university graduates – not equipped with sufficient hard and soft skills to be employable – is documented in a number of reports (see, for example, HRINC 2010; UNDP 2011; World Bank 2010b, 2012).

### **3.2.3 Graduate Employability and Associated Social Issues**

Another consequence of the absence of an umbrella governance body in the higher education sector and the limited relevance and quality of the education provided is the low employability of university graduates. The HRINC labour market projections cited above provide a clear example of graduate un-employability due to both the mismatch between the demand and supply of university graduates and graduates’ lack of necessary knowledge and skills, both hard and soft, to be able to get a job. A World Bank report shows that many of Cambodia’s youth lack both technical and soft skills, something perceived by employers to be a severe constraint and directly linked to the quality of education and training (World Bank 2010b). The results of a survey indicate that the majority of employers are not satisfied with the skills possessed by youth, and



that there is a mismatch between the skills employers need and what young Cambodians can offer (CAMFEBA 2008). This means graduate employability is very low, which in the long-run will likely lead to underemployment and high unemployment among university graduates and young adults.

A high rate of youth unemployment is more likely to contribute to the rise of a host of social issues such as crime and other risky behaviours. Sen and Ros 2013 (forthcoming) note that Cambodia is likely to be more vulnerable to social unrest resultant of high youth unemployment if its HEIs are not able to produce a sufficiently competent skilled workforce with relevant knowledge and skills demanded by the labour markets. The International Institute for Educational Planning (IIEP 2011: 33) also warns that “youth unemployment will continue to contribute to fragility and social unrest in Cambodia if job opportunities are not available to keep up with demand ...[Unemployed] graduates are at risk of becoming marginalised and resorting to violence, crime, and other risky behaviours” (cited in IIEP 2011: 33). Hence, the risks of youth unemployment are high. There is high need for appropriate and immediate interventions from both government leaders and other concerned stakeholders.

### **3.3 WHAT DOES THE 2015 ASEAN ECONOMIC COMMUNITY MEAN FOR CAMBODIA’S HIGHER EDUCATION SYSTEM?**

The ASEAN Economic Community is the goal of regional economic integration by 2015. The 2015 AEC envisages four key characteristics: (i) a single market and production base, (ii) a highly competitive economic region, (iii) a region of equitable economic development, and (iv) a region fully integrated into the global economy (ASEAN 2008). According to the ASEAN Economic Community Blueprint, an ASEAN single market and production base builds on five pillars: (i) free flow of goods, (ii) free flow of services, (iii) free flow of investment, (iv) free flow of capital, and (v) free flow of skilled labour (ASEAN 2008: 6). In the current situation, what does the 2015 AEC mean for Cambodia? What does it mean for its higher education system? The results of a series of interviews indicate both opportunities and challenges for Cambodia with regard to its integration into the 2015 AEC.

On the one hand, the 2015 AEC is a major external factor that is likely to drive internal reforms in Cambodia’s higher education system so as to not fall behind other countries in supplying a skilled workforce to the free flow of skilled labour. This is a wake-up call for all HEIs and their parent ministries to not just focus on quantitative expansion but also improve the quality and relevance of the education provided. It is a pressure for the government to reform the higher education system so it can produce a skilled labour force by the 2015 AEC. It also serves as a pressure for HEIs to reform themselves and perform well if they intend to remain in the competitive market of higher education provision, as the AEC will open the door for cross-border education, allowing top universities in the region to open branch campuses in Cambodia. In other words, this will be an opportunity for local HEIs to improve the quality of their education provision in order to compete with the branch campuses of top regional universities in attracting students to their institutions.

On the other hand, some argue that it is already too late for Cambodia to start improving the quality of its higher education and its labour force, as the year 2015 is fast approaching. All these should have been well prepared for the planned integration several years ago. The 2015 AEC will be a challenge for both the government and Cambodia's higher education system as a whole, especially poorly performing HEIs. As already noted, the majority of young Cambodian graduates do not possess sufficient hard and soft skills to enter the national job markets (HRINC 2010; UNDP 2011; World Bank 2012), let alone compete for jobs in regional labour markets where the majority of ASEAN countries have a large supply of better qualified and skilled labour. The free flow of skilled labour as a result of the AEC will open the door for better qualified professionals from other countries in the region to take up jobs in Cambodia, which could increase the already high unemployment rate among Cambodian graduates. Of course, there are opportunities for Cambodian graduates to get jobs in other ASEAN countries, but their current prospects seem to be low.

In short, the 2015 AEC has several critical implications for Cambodia's higher education system. Whether many of the HEIs understand the challenges they will face and the implications of being part of this regional economic community remains to be seen. As Dr Prasarn Trairatvorakul, Governor of the Bank of Thailand, puts it, "one of the greatest risks that may arise is not from the AEC itself, but from ensuring that businesses and stakeholders understand what exactly is at stake" (Trairatvorakul 2011: 7). Whether or not we are well prepared for it, the AEC is approaching – very fast. Although Cambodia's preparation of its labour force for the economic integration is running late, correct action taken now can still change the course of the country and contribute to improving its competitiveness in regional markets. Investing more in improving the quality and relevance of education and in developing a well-educated skilled labour force is a key to economic growth. The stakes are high. Many a challenge lies ahead, but a serious commitment is very likely to result in fruition. A UNDP report warns that, "In order to continue the remarkable growth the Cambodian economy has seen the past 10 years, the government will have to ensure that it creates a well-educated skilled workforce. Rapid expansion of a skilled, capable workforce can attract FDI and promote further growth; if the labour market is filled with unskilled workers, the economy will largely be unable to capitalise on these benefits" (UNDP 2011: 28).

### **3.4 CONCLUSION**

The new realities facing higher education mean that many traditional ways of running higher education systems are becoming less relevant. A laissez-faire approach, which assumes that all the components of a higher education system will simply fit together and serve everyone's needs, is untenable. System-wide coordination is clearly needed. (World Bank 2000: 58)

In spite of the "destruction" inflicted by the Khmer Rouge regime on both Cambodia's higher education infrastructure and human resources, frequently blamed as the culprit for the slow development of the country's higher education, it is an undeniable reality that overall progress over the past two decades or so still leaves



much to be desired, especially given the resources and efforts that have gone into it. It may be that all concerned actors in the whole system are still trying to orientate themselves to a specific higher education paradigm in the neoliberal order so hastily introduced into Cambodia at the beginning of the 1990s.

Cambodia's current higher education system is characterised as having many competing governing powers in the State, an anarchical and minimally regulated market environment, and a gradually weakening academic community. The absence of an overall education policy coordinating body, of a well-functioning accreditation institution, of a good labour market information system, and of a healthy university-industry linkage has generated a plethora of critical implications for effective and efficient use of limited resources for improving the higher education system, the quality of education policy implementation and monitoring, the quality and relevance of education to labour markets, graduate employability and its associated social risks. These pose a great challenge to the country's future competitiveness and growth. Particularly, these seem likely to present Cambodia with more challenges than opportunities when it becomes integrated into the ASEAN Economic Community in 2015.

However, a correct action taken now is better than no action at all and may indeed help navigate the inevitable challenges that lie ahead. There is a need for a national body that is sufficiently competent and fully recognised to coordinate and monitor the implementation of key higher education policies. A system-wide coordination is needed. The national accreditation institution needs to be strengthened. Key policies on higher education governance and financing that are fit to address the challenges in the current higher education system should be in place. These policies should be strategically linked with other key industrial policies as well as national development strategies. The labour market information system should be finalised soon, and the promotion of HEI-industry linkages should be strengthened and expanded. A myriad of urgent and critical tasks remain to be addressed, yet it is hoped that the genuine commitment and the strong political will of all major actors to undertake them will reap rich rewards.

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## Contracting Arrangements in Cambodia's Health Sector – Some Trends

by VONG Sreytouch<sup>1</sup>

### 4.1 INTRODUCTION

The Royal Government of Cambodia (RGC), aware of the weaknesses in the country's health system, has through its Ministry of Health pursued significant reform in health financing, health planning and health service management. These initiatives, implemented between 1996 and 2008, respond to issues of health workforce capacity, fragmented management and service delivery, low rural coverage and inequitable access to services by socially excluded and economically marginalised groups (Grundy *et al.* 2009). The reform started in 1996 with the establishment of the Health Financing Charter to legitimise the user fee system. The Health Coverage Plan was created, and then further updated in 2002. In addition, the Operational District (OD), designed on the principles of health sector planning to reorganise services based on essential service packages and minimum population catchments, was established. In 1998, the government reformed health service management, strengthening public-private collaboration in services delivery by introducing an external contracting model to support recovery of the rural health system and improve health services delivery.

The use of contracting for-profit and not-for-profit providers as a means to deliver a range of different clinical and support services, including cleaning, catering and management, has become a growing trend in developing countries as governments and the development community strive to determine how best to deliver and target essential public services (Mills *et al.* 2001). However, the concept of contracting is still misunderstood because the terms *contracting* and *contract* are often confused. The World Health Organisation (WHO 2008) defines “contracting” as a process or strategy, and “contract” as a tool used to materialise and formalise the contracting process/strategy.

This article draws on the literature review for a CDRI project on *The Change Process in Contracting Arrangements within the Health Sector in Cambodia*. This study is one of three components of the three-year ReBUILD programme, research for building pro-poor health systems during recovery from conflict, being undertaken by a research consortium<sup>2</sup> with funding support from the Department for International Development, UK (DfID). Information was obtained through online searches in Hinari and Google Scholar. Material was also sourced from the National Institute of

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<sup>1</sup> Vong Sreytouch is a research fellow at CDRI.

<sup>2</sup> ReBUILD consortium members are the Liverpool School of Tropical Medicine, Queen Margaret University (UK), College of Medicine and Allied Health Services (Sierra Leone), Makerere University (Uganda), and the Biomedical Research and Training Institute (Zimbabwe).

Public Health (NIPH) library and the World Bank Public Information Centre (PIC) using the key terms: *contracting of health service, health sector reform, special operating agency, health sector support project*. Additional journal articles were identified from the reference lists of various reports. Other sources of information include unpublished reports and presentation handouts.

The article gives a broad overview of health service contracting in Cambodia. It explains the key features of different contracting models and their strengths and weaknesses, and describes the basic features of a Special Operating Agency (SOA), an internal contracting model currently applied in Cambodia. It first defines contracting, the different types of contracting and the implications, and then compares the contracting arrangement started in Cambodia in the late 1990s with the current Special Operating Agency (SOA) model implemented in 2009. The final section of the paper discusses contracting arrangements in Cambodia and concludes.

## 4.2 CONTRACTING EXPERIENCE IN CAMBODIA

### 4.2.1 Contracting Phase I: Pilot (1999-2002/3)

In efforts to speed up the recovery of the rural health system and improve health services delivery in Cambodia, contracting was piloted in 1999 and then later extended. Five Operational Districts (ODs)<sup>3</sup> across the country introduced external contracting as part of the Health Sector Support Programme funded by the Asian Development Bank (ADB) and DfID (Khim & Annear 2011). Contracting between the Ministry of Health (MoH) and international non-governmental organisations (INGO) was for service delivery management, and was characterised by varying degrees of autonomy. Contractors were responsible for providing Minimum Package of Activities (MPA), a bundle of care services mandated for all health districts in Cambodia (Bhushan *et al.* 2007). Contracts set explicit targets for eight health service indicators related to maternal and child health: childhood immunisation, administration of vitamin A to children, antenatal care for pregnant women, child delivery by a trained professional, delivery in a health facility, the knowledge and use of birth control, and the use of public facilities when seeking care (Bhushan *et al.* 2007). Two different forms of contracting were piloted in this phase – contracting out and contracting in.

The difference between the two forms of contracting is the level of autonomy given to the contractors. In contracting out, a service package is outsourced to be managed by an external entity: contractors have complete autonomy and full responsibility for management and services organisation. Under this arrangement, contractors in Cambodia directly employed their staff, had full management control over the OD and full responsibility for the delivery of specific services (Schwartz & Bhushan 2004; Bhushan *et al.* 2007). In contracting in, a legal entity is brought in by contract to manage a health service unit within a larger system of health service organisation. Under this arrangement, contractors in Cambodia provided only

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<sup>3</sup> The original plan was to select 15 ODs: 5 for contracting-out, 5 for contracting-in, and 5 for the control group. However, only 12 ODs were suitable for the Phase I pilot, and lack of bids reduced the number even further (ADB 2004).

management support to civil service health staff and the recurrent budget was provided through existing government channels.

Figure 4.1: Characteristics of Contracting Out and Contracting In

Contracting Out	Contracting In
<ul style="list-style-type: none"> <li>• A service package is outsourced to be managed by an external legal entity</li> <li>• Contractor has complete autonomy and responsibility for service delivery, hiring and firing, setting wages, procuring and distributing essential drugs and medical supplies, organising and staffing health facilities</li> </ul>	<ul style="list-style-type: none"> <li>• A legal entity is brought in by contract to manage a health service unit within a larger system of health service organisation</li> <li>• Contractor has no autonomy to hire or fire health workers</li> <li>• Drug supplies provided through normal government channels</li> </ul>

#### 4.2.2 Contracting Phase II (2004-2007/8)

Phase II of contracting was built into the Health Sector Support Project (HSSP) 2004-08 under the policy directions stated in the Health Strategic Plan 2003-07. Contracting was characterised by a combination of contracting in and internal contracting, with pooled funding support from the World Bank (WB), United Nations Population Fund (UNPF), DFID and ADB (Bigdeli n.d.). As a result, 11 ODs were contracted by INGOs (Table 4.1). The contracting model implemented in this phase was a hybrid form with INGOs contracting MoH staff at supervisory and service delivery levels, applying civil service regulations to all MoH staff but able to recruit independently to cover shortages (MoH 2007). The internal contracting ODs differed from the hybrid model in that government OD managers, with support from the Provincial Health Department (PHD), managed them. Performance-based incentives and monitoring along with proactive management of ODs were the main features of this arrangement (Khim & Annear 2011).

Table 4.1: Selected ODs for Contracting Phase II

Name of OD	Province	Contractor
Memut	Kampong Cham	Save the Children Australia
Ponhea Krek	Kampong Cham	Save the Children Australia
Preariang	Prey Veng	Health Net International
Preah Sdech	Prey Veng	Health Net International
Senmonorom	Mondulkiri	Swiss Red Cross
Ang Roka	Takeo	Swiss Red Cross
Kirivong	Takeo	Swiss Red Cross
Ban Lung	Ratanakiri	Health Net International
Sre Ambel	Koh Kong	CARE
Smach Meanchey	Koh Kong	CARE
Tbeng Meanchey	Preah Vihear	Health Unlimited

Source: MoH (2007)

#### **4.2.3 Contracting Phase III: Special Operating Agency (2009-Present)**

The Special Operating Agency (SOA) is the Cambodian form of the broader concept of internal contracting. It builds on the government's wider reform of public administration, which aims to improve service delivery, enhance pay and employment, develop institutional and human resource capacity, and promote the use of information and communication technologies (CAR 2008). To guide the reform, the CAR Secretariat prepared policies on public services, capacity development, human resource management, human resource development, remuneration and employment (CAR 2008). The SOA was established as a mechanism to help government respond to new developments and improve the coverage and quality of public health services delivery (Khim & Annear 2011).

The SOA is a flexible mechanism designed to enhance performance and accountability in the provision of public health services introduced in Phase II of the Health Sector Support Programme (HSSP2), supported by pooled funds from seven major donors: WB, DfID, AUSAID, UNFPA, UNICEF, Belgian Technical Cooperation (BTC), and the French Development Agency (AFD). As defined by the MoH (2009: 3), "SOAs are new organisations in the health sector. They are part of Ministry of Health but given operating autonomy, within an agreed mandate, to provide services under contract to the Ministry". In general, SOAs are government entities implemented by public servants and financed through various means such as government budget, Service Delivery Grant (SDG) the HSSP2, user fees, Health Equity Fund (HEF) and direct donor support. The implementation of SOAs marks the transition to the semi-autonomous management of public service institutions. Formalised in 2008 by Sub-Decree No. 69, the objectives of SOAs in the health sector set out by the MoH (2009) are to:

- Improve the quality and delivery of public health services in response to needs
- Reorient the behaviour of healthcare providers towards the principles of motivation, loyalty, service and professionalism
- Promote prudent, effective and transparent performance-based management
- Develop sustainable service delivery capacity within public administration.

Designed to complement Minimum Package of Activities (MPA) and Complementary Package of Activities (CPA), composed of health posts, health centres (HC) and a referral hospital (RH) managed by an Operational District (OD), the SOA offers some autonomy over the management of human resources, incentives for staff, and supply. The SOA establishes a contract between patients and service providers for a set of activities, outputs and outcomes, which the provider is contractually obliged to supply in return for resources as detailed in the contract and payment of performance-related bonus.

The implementation guidelines (CAR 2008) clearly state that the establishment of SOAs is intended to improve customer service and client consultation, monitor service quality, promote cost-effective service delivery processes, re-orient service



providers' attitude and behaviour, delegate more responsibility for operational matters throughout the organisation, make use of better information technology, and demonstrate government action and concern for efficient management.

#### 4.2.3.1 Characteristics of SOAs in Cambodia

The SOAs in Cambodia share many attributes of other performance-based incentive initiatives such as the Priority Mission Group (PMG) and Merit-based Performance Incentive (MBPI), which have in common the objective of improving public services delivery by enhancing performance and accountability (Table 4.2).

Table 4.2: Characteristics of SOAs in Cambodia

Characteristics	Tools/Measurements
Status: public sector- an integral part of ministry or institution, but a separate structure	Parent ministry or institution sets policy, monitors and controls SOAs
Mandate: defined in detail; service delivery focussed	Terms of Reference, and Management Contract with measurable results
Authority: semi-autonomous operational management	Pre-approved plan and budget, tailored human resource and financial management, performance-based incentives (allowance, bonus)
Staff: civil servants subject to common statute, and possibly contract staff recruited by SOA management	Parent ministry or institution deploys staff to SOA
Finance: adequate recurrent resources provided via existing government channels	Government budget, user fees, funding from development partners
Responsibility and accountability: clearly defined in the contract; performance monitored via systematic reporting	Expected results, performance indicators, and transparent management
Application: flexible and adaptable to suit widely different circumstances at various levels	SOAs may be established in widely different circumstances at varying levels
Implementation: step-by-step according to capacity	Ownership, implementation capacity, and sustainability
Approach: participatory via consultation	Accountability and transparency requires the involvement of those concerned

Source: Adapted from CAR (2008)

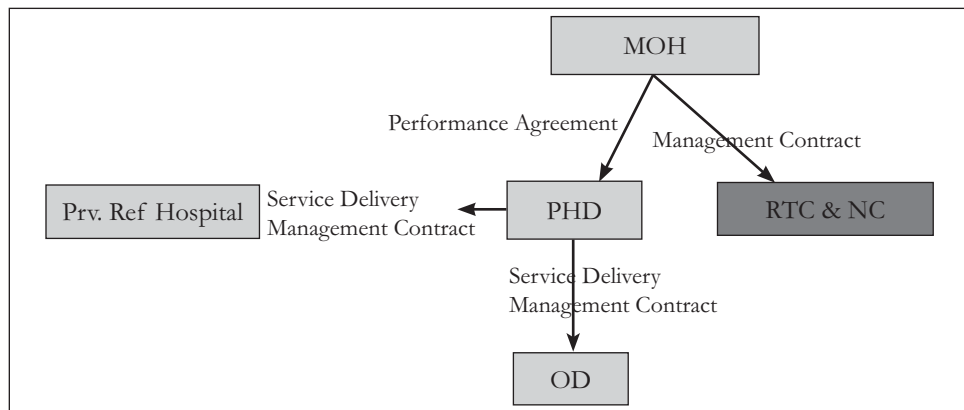
Implementation of the SOA involves many actors, including the MoH—or its representative, the PHD—the OD office (which becomes the SOA Directorate), and staff of the health facilities operating under the SOA (referral hospitals, health centres and health posts). An innovative participatory approach is the setting up of Village Health Support Groups (VHSG) as local focal points. The VHSGs represent community and user groups and participate in Health Centre Management Committee (HCMC) meetings where concerns and feedback on health services can be discussed and information shared (Khim & Annear 2011).



#### 4.2.3.2 Form of Contracts used in SOA

There are two SOA models used for health services delivery in Cambodia: (1) Operational District and Provincial Referral Hospital, and (2) Regional Training Centre/National Centre (MoH 2009). In the first model, the MoH contracts provincial referral hospitals and ODs through the Provincial Health Department (PHD). The MoH establishes a *Performance Agreement* with the PHD. The PHD commissions health services from the ODs, which become health service providers of SOA. On behalf of the MoH, the PHD then establishes a *Service Delivery Management Contract* with the SOA. In the second model, the MoH establishes a *Service Delivery Management Contract* directly with the Regional Training/National Centre (RTC/NC). This model is less complicated as the contracting process is just between the MoH and the RTC/NC SOA. *Personal Service Contracts*, where the SOA head who acts as a representative of the MoH appoints individual staff, are used to support the Service Delivery Management Contract (MoH 2009).

Figure 4.2: The Contracting-Commissioning Structure of Health Sector SOAs



Source: MoH (2009)

### 4.3 DISCUSSION

The contracting arrangement in Cambodia has matured. Starting with five pilot ODs and then extending to 11 pilot ODs in the early stage, there are now 30 SOAs implementing a form of internal contracting across the country. A review of existing literature and evaluation reports indicates the benefits of contracting in Cambodia. Findings show that contracting out health services delivery to non-governmental entities is feasible, cost-effective and equitable, and targets and benefits the poor. The arrangement has rapidly expanded the healthcare delivery system to more people and contributed to reducing infant, child and maternal mortality. With almost double the recurrent costs, the contracting-out model provides better results than the contracting-in model and the government-run ODs. Although evaluation of the first phase of contracting shows a more equitable result, whether equity among the poorest population quintile has been achieved is debatable. The MoH (2007) points out that though the utilisation of public health facilities increased, there is no clear record of the utilisation of services by the poorest quintile of the population. In addition, the use of services by the poorest

is more likely a result of the introduction of the Health Equity Fund (HEF), which exempts the poor from user fees at public health facilities.

Contracting phase II shows significant progress in infrastructure development, and increased access to and use of maternal and child health services such as child immunisation and antenatal care (MoH 2007b). The MoH (2007) review conducted at the end of this phase identifies the restoration of trust and confidence in public health facilities as the most significant achievement of contracting. Evidence shows that utilisation rates, measured by outpatient discharge and hospitalisation, have risen in all health-contracting facilities (MoH 2007). Phase II results indicate that linking incentives to outputs improved providers' performance, resulting in better maternal and child health services (Keller *et al.* 2008).

Contracting in Cambodia is viewed as a mechanism for enhancing the delivery of public healthcare services, particularly when the state cannot afford to implement services delivery itself, to meet citizens' demands, improve work effectiveness and improve the quality of services with a view to restoring public confidence in the health system. The experience of external contracting in phase I and internal contracting in phase II shows that contracting can improve service quality, increase service coverage, reduce out-of-pocket payments and distribute health resources equitably at community level. However, compared to standard government-run ODs, the operational costs of contracting ODs are high.

There is not a significant base of literature specifically looking at the processes involved and the reasons for switching from one health service contracting arrangement to another. Albeit limited, existing literature highlights a few key elements that could discourage the continuation of contracting and conversion to the SOA model, namely the high costs of implementation, failure to transfer knowledge and skills, and lack of national ownership. Since the operating cost of contracting ODs is almost double that of government-run ODs, the MoH considers further investment in contracting an unsustainable strategy within current health budget constraints, especially given the country's dependence on donor funding (Khim & Annear 2011:51). Secondly, external contractors' and their employees' lack of involvement and information sharing hampered knowledge and skills transfer among OD staff. It was thought that knowledge and skills transfer would be more effective if government staff at district level were to be actively engaged in jobs provided by external contractors. Then, there is a view within the MoH, reflecting in part the perceived expectation of the public, that the ministry has responsibility for stewardship and service delivery roles in the health system. Further, it is unclear whether contractors participate well in the planning and development of the Annual Operating Plan (AOP). Instead, contractors appear to substitute their own targets and priorities towards meeting national targets. Finally, there was concern over contractors' exit strategies (to hand procedures back to MoH administration) at the end of the contracting project in 2007.

Based on Cambodia's experience and reviews of literature and documents, health service contracting appears to improve health services delivery and coverage. However, some scholars caution that contracting is not a simple, fail-safe solution and there are several challenges and drawbacks in its application (Ashton 1998). Coordinating

effective contract management requires high capacity to plan, prepare, manage and monitor contractors. Failure to establish cost-effective management and performance monitoring could undermine the effectiveness of service delivery. Moreover, although contracting has the potential to add benefits, it could drain available human and financial resources to the detriment of other public health services (Mills & Broomberg 1998; Eldridge & Palmer 2009). Khim and Annear (2011: 47) identify a number of critical contracting issues: high transaction costs can outweigh the gain from contracting; low capacity to manage contracts may mean the optimal benefit of contracting cannot be achieved; if the number or the capacity of bidders is limited, contracting may end with suboptimal providers, resulting in low quality services; setting the contract price requires access to adequate and good quality information to avoid overestimation of costs and overpaying of providers; monitoring and evaluation to assess and enhance contractors' performance needs resources and capacity.

In Cambodia, contracting has been a popular tool among donors and healthcare providers. Performance-based contracting, for example, incentivises public health service providers to improve their performance, resulting in better quality of care. The evolution of the contracting process in Cambodia is complex. Experience thus far shows that contracting has a positive impact on the health services in public facilities. However, the use of the external contracting model, i.e. contracting with INGOs or performance contracting with individuals to provide services in public facilities, could drain key personnel to the private sector. In the context of Cambodia where there is an overall lack of human resources for health, the drain of skilled health workers from the public to the private sector would have a major impact on health services for Cambodians. Perhaps this factor might encourage the move from external contracting to internal contracting through the introduction of more SOAs.

#### **4.4 CONCLUSION**

The Cambodian experience of using contracting as a means to deliver essential health services confirms that it can be an effective government mechanism for achieving rapid and significant improvements in the quality of healthcare. Evidence suggests that different types of contracts may be appropriate, but performance-tied and incentive type contracts have been particularly successful. Many developing countries use contracting as a means of harnessing the resources of the private sector, which plays important roles in providing public social services to the population. In this regard, contracting is seen as a mechanism for harmonising public and private health service providers to deliver better benefits. However, the success of various contracting arrangements depends on the management capacity of the parent ministry.

Since its introduction as part of Cambodia's health sector reform in 1999, the contracting model has improved and matured. Evaluation of contracting in the early stages illustrates that it is feasible, cost effective and equitable, and effectively targets the poor. Because of this innovative approach, public health facilities offer more services that are more accessible by more people. Building on its experience of contracting, the Cambodian government has introduced the Special Operating Agency (SOA) to speed up rural health system recovery and further enhance the

quality of public health services. Given that SOAs have only been operating for a few years, it may be too soon to evaluate progress. Knowledge gaps on the evolution of contracting arrangements in Cambodia remain. A few studies discuss the implications of using contracting to reduce inequity in healthcare, but there is insufficient evidence to prove that contracting arrangements, especially SOAs, have improved equity for the community. Future research needs to examine the evolution of contracting and its implications for service coverage and equity, especially in poor communities.

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# **Rising Food Prices in Cambodia: Causes, Impacts and Policy Responses**

by LUN Pide and TONG Kimsun<sup>1</sup>

## **5.1 INTRODUCTION**

Just before the global financial and economic crisis loomed in late 2008, Cambodia, like many other countries, had been experiencing gradual increases in food prices for several years before they suddenly shot up and peaked in mid-2008. The cost of basic foods soared to record highs; for instance, the price of rice increased by over 90 percent year-on-year during the second quarter of 2008. The price shock slowly subsided amid the first throes of the crisis, but prices had barely bottomed before they started rising again in the second quarter of 2009. As of May 2011, the food price index had topped its June 2008 peak by just over 4 percent. Such a trend raises serious concern over potential negative impacts on poor Cambodians.

This study primarily employs empirical methods to measure the first-order welfare impact<sup>2</sup> of rising food prices on the poor and vulnerable in Cambodia. It aims to answer some important questions, including the underlying causes of food price increases, and to analyse the government's policy responses. Several studies (see Chan 2009; Tong 2009; UNICEF 2008) have already investigated the impacts of high food prices in Cambodia. Findings suggest various negative implications, including household welfare loss and health deficit due to reduced quantity and quality of food consumption, the threat of widespread malnutrition among children, and increased household debt. As a whole, the food price shock made households vulnerable to poverty traps, thus undermining efforts to alleviate poverty (Chan 2009).

Our approach to measuring the impact of rising food prices is to calculate the net benefit ratio (NBR) for each sample household and classify households into net food buyers and net food sellers. The NBR is the difference between the consumption ratio (CR) and the production ratio (PR). If NBR is positive (negative), the household is defined as a net seller (net buyer). The proxy used for the production ratio (PR) is the share of the value of agricultural sales and own consumption in total household income, while the proxy used for the consumption ratio (CR) is the share of the value of food purchases and own consumption in total household expenditure. Net food sellers gain from food price increases, so their welfare is enhanced, while net food buyers suffer welfare loss. This model is not new but a rather conventional one developed by Deaton (1989) that has since been widely used by many scholars to

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<sup>1</sup> Lun Pide is a research associate and Dr Tong Kimsun is a research fellow and programme coordinator at CDRI.

<sup>2</sup> It is called first-order impact since the empirical methods employed do not capture changes in household consumption decisions (which might be the case) amid sudden food price inflation.

examine similar topics (Budd 1993; Barrett & Dorosh 1996; Minot & Goletti 2000; Kytchukova & Diop 2006; Arndt *et al.* 2008; Ivanic & Martin 2008).

Using 2011 household survey data from eight villages, we show that rising food costs reduce household welfare and increase poverty. The poorest suffer most from sudden food price hikes because of their low food production capacity. Analysing the causes of the domestic food price increases in 2008 and 2011, we find that the main drivers were not only external factors such as rising international commodity and energy prices and a weak US dollar, but also internal factors such as exceptionally high domestic demand and inflationary expectations. As for policy, we argue that a strong and effective social safety net and the promotion of agriculture in the longer term are key to both addressing and preventing food price shocks.

The article is structured as follows. Section 5.2 provides a brief theoretical discussion and describes the methodology of this study. Section 5.3 discusses food price trends and underlying causes. Section 5.4 presents the findings on the poverty impact of food price increases, while Section 5.5 reviews the government's policy responses. Section 5.6 concludes.

## 5.2 THEORETICAL DISCUSSION AND METHODOLOGY

To analyse the impact of food price increases on the poor, a welfare impact model proposed by Deaton (1989) was adapted and employed. The model classifies households as net food buyers or net food sellers. Net food sellers benefit from food price increases, while net food buyers are more likely to suffer and face welfare losses. Households are categorised as net food sellers (buyers) if their total food production ratio is greater (smaller) than total food consumption ratio<sup>3</sup>. If a household produces more than it consumes (net food seller), a production surplus and a higher price would make this household better off. This is not the case, however, for net food buyer households. To measure the welfare impact of food price increases on households, we use the following equation

$$\Delta W_h = \Delta p \times \left( \sum_{i=1}^k (p_i q_i - e_i) - \sum_{j=1}^m p_j q_j \right) / X_h,$$

where  $\Delta W_h$  is the change in welfare of household  $h$ ,  $\Delta p$  is the change in price of food item,  $p_i q_i$  is gross sales of food item  $i$ ,  $e_i$  is the production expenditure per quantity of sales of food item  $i$ ,  $p_j q_j$  is the value of household consumption of food item  $j$ , and  $X_h$  is total consumption in the household.

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<sup>3</sup> Food production (consumption) ratio is the ratio of total food production (consumption) to total consumption



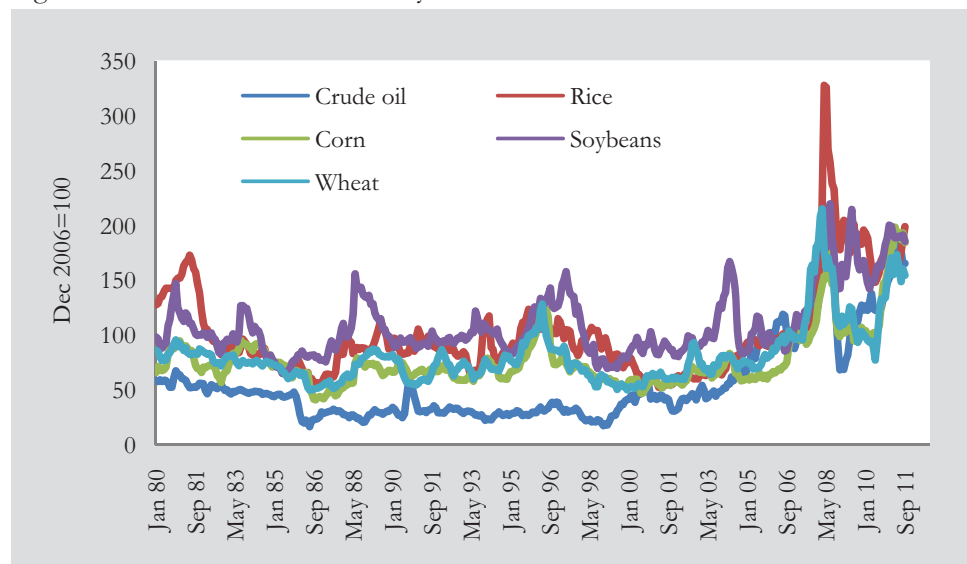
To observe the causes of food price increases theoretically, we examine the pass-through of international prices to domestic prices. Empirically, a vector autoregression (VAR) model is commonly used to examine the pass-through of external shocks—fuel and food—into inflation (Bhundia 2002; McCarthy 2007; Duma 2008).

The dataset was obtained from a rapid survey of 420 households in eight villages (five of which are rural) across six provinces, namely Battambang, Kampong Chhnang, Kampong Thom, Kampong Speu, Siem Reap and Phnom Penh. The analysis of causes of food price increases uses monthly consumer price index (CPI) data (published by the National Institute of Statistics) is used, particularly of food and non-alcoholic beverages over 2007–11. Information on government policy responses to food price rises was gathered from secondary sources including published papers.

### 5.3 CAUSES OF FOOD PRICE INCREASES

**Global Perspective:** The international prices of a wide range of food commodities increased significantly during the first half of 2008 (see Figure 5.1). A large number of studies have attempted to identify the causes of this price surge. Some of them emphasise demand and supply factors, while other explanations address financial markets and exchange rates.

Figure 5.1: International Commodity Prices

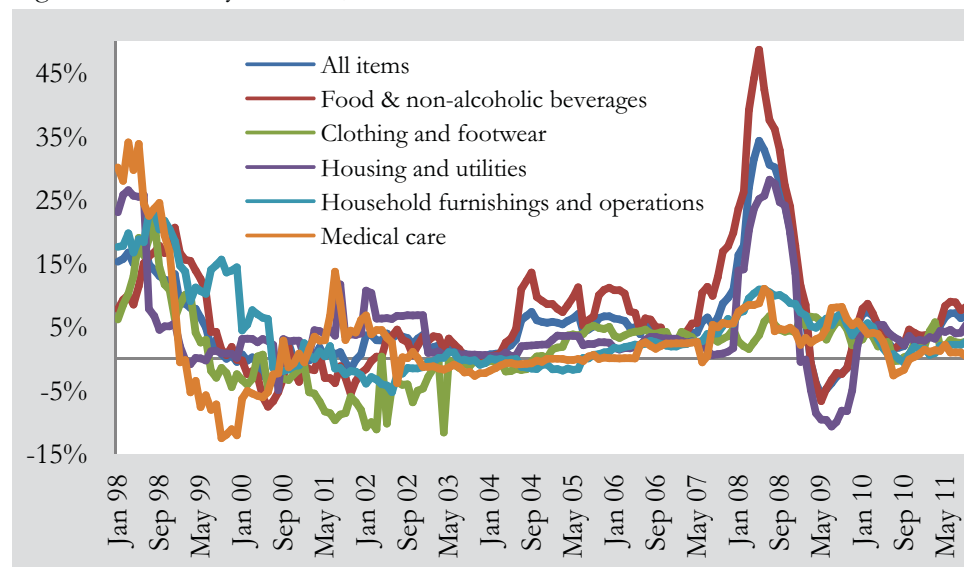


Source: International Monetary Fund, International Financial Statistics online (<http://www.imf.org/external/data.htm>, accessed 14 November 2011)

There are at least three demand-side explanations for the 2008 food price hike: the growing world population combined with strong income growth in emerging economies, the increasing production of ethanol and bio-fuel, which requires a large quantity of agricultural commodities as inputs, and precautionary actions to avert food crisis/insecurity. Supply-side explanations include declining food stocks, slowing productivity, adverse weather, high fuel prices and export restrictions.

**Cambodian Perspective:** The consumer price index indicates a remarkable rise in food prices since mid-2007. The food and non-alcoholic beverages index, which in 1997-2007 registered lower annual increments than other items, went up considerably from June 2007 to September 2008. Almost at the same time, the housing and utilities price index also rose significantly, mainly due to the real estate boom supported by the influx of capital. However, the rate of growth in food and non-alcoholic beverage prices was the most rapid, reaching a month-on-month record high of 48.6 percent in May 2008. The food and non-alcoholic beverages price index continued to increase and has reached its highest level since the inception of the index in 1997, but its growth rate has been relatively stable compared to 2004–06. Food and non-alcoholic beverage prices started to accelerate again in the four months to September 2011—an average of 8.4 percent per month, or 4.2 percentage points higher than in January to April 2011. The food and non-alcoholic beverages price index is much higher than the overall price index, indicating that food price rises are the primary cause of recent inflation.

Figure 5.2: Monthly Inflation, 1998-2011



Source: National Institute of Statistics (1997-2011)

Commodity prices edged up slowly from 1998 to the end of 2006. In early 2007, the prices of rice, fish and pork started to rise steadily. About a year later, the prices of beef and gasoline had also picked up. By mid-2008, all commodity prices had reached record highs. The cause of higher prices varies with individual commodities, but significantly higher oil prices and greater food demand combined with dietary transition towards better quality food and the growing use of food grains to produce bio-fuel across the globe have been the main drivers in Cambodia. Moreover, the results using VAR modelling suggest that besides the external factors of rising international commodity and energy prices and a weak US dollar, internal factors such as exceptionally high domestic demand and inflationary expectations were driving domestic food price increases in 2008.

## 5.4 IMPACT OF FOOD PRICE INCREASES

**Net Food Sellers vs Net Food Buyers:** Only one of the five rural villages is a net rice seller given that the other four record a very low rice production capacity. In other words, the value of rice production is lower than that of rice consumption in those villages. Likewise, only one urban village is a net rice seller because of the high rice production capacity in this village. Not one of the eight villages classifies as a net food seller. Logically, if food sales cannot cover food purchases, the household is a net food buyer.

**Welfare Impact:** The impact of rising food price rises is actual and decomposed into average year-on-year inflation in two periods: between 2007 and 2008, and from 2009 to September 2011. The results for rice and overall food including rice are discussed separately.

Rice price inflation was high during the food crisis. It is estimated that year-on-year average rice inflation stood at around 73 percent between 2007 and 2008, and only 3 percent in 2009 to 2011 (first nine months). As shown in Table 5.1, welfare loss during the food crisis in 2008 is estimated to have been around 2.9 percent for rural villages and about 3.3 percent for urban villages. Overall welfare loss during the food crisis was 3.5 percent compared to a mere 0.1 percent in recent rice price increases.

Table 5.1: Welfare Impact of Rising Rice Prices

Area	Change in rice prices	
	73% (2007-2008)	3% (2009-2011)
Rural	-2.96	-0.12
Urban	-3.36	-0.13
Cambodia	-3.50	-0.12

Source: Author's calculations

Food price inflation was 32 percent during the crisis (average year-on-year increase between 2007 and 2008) and around 10 percent between 2009 and 2011 (January to September). We estimate that welfare losses during the food crisis were around 9 percent for rural and 10 percent for urban villages. Welfare losses due to price increases between 2009 and September 2011 were less at around 3 percent (Table 5.2).

Table 5.2: Welfare Impact of Rising Food Prices

Area	Change in rice prices	
	32% (2007-2008)	10% (2009-2011)
Rural	-9.18	-2.86
Urban	-9.80	-3.06
Cambodia	-9.70	-2.93

Source: Author's calculations

**Poverty Impact:** The simplest way to characterise the effects is to observe total household consumption before and after the food price increases. Here, real income (welfare) changes due to food price increases are used to compute new consumption and then estimate the poverty effects. The change in poverty headcount—an almost 6 percentage point increase—during the food price rise in 2008 is quite revealing (Table 5.3). These findings are consistent with ADB (2011), which suggests that the overall poverty headcount in Cambodia would increase by 6.8 percentage points if food prices were to jump 30 percent. Our findings (Table 5.4) are also consistent with Ivanic and Martin (2008), who conclude that a 10 percent increase in rice price would raise the national poverty rate by 0.5 percentage points.

Table 5.3: Poverty Impact (overall food)

Area	Poverty headcount (%)		Change in poverty (% point)
	Before crisis	After crisis	
Rural	6.3	9.8	+3.5
Urban	19.2	25.2	+6.0
Cambodia	15.6	21.4	+5.8

Source: Author's calculations

Table 5.4: Poverty Impact (rice)

Area	Poverty headcount (%)		Change in poverty (% point)
	Before crisis	After crisis	
Rural	6.3	8.0	+1.7
Urban	19.2	23.5	+4.3
Cambodia	15.6	18.6	+3.0

Source: Author's calculations

## 5.5 POLICY RESPONSES TO FOOD PRICE INCREASES IN CAMBODIA

Cambodia, like other countries in the region, introduced various direct and indirect measures to reduce adverse impacts on the economy during the food crisis in 2008. The government also established a price monitoring group to closely monitor the issue. Those policy actions (short- and medium-term) can be summarised as follows:

<b>Short-term (immediate) responses</b>	<b>Medium-term responses</b>
<ul style="list-style-type: none"> <li>• Temporary ban on rice exports</li> <li>• 300 tonnes of rice released to the market at below market price</li> <li>• USD12 million credits released to the Rural Development Bank to increase rice stocks</li> <li>• Zero tariffs on agricultural inputs</li> <li>• Ban on pork imports removed</li> <li>• Food import duties cut to zero</li> <li>• Reference price fixed for levying fuel tax</li> <li>• Electricity tariff subsidised</li> <li>• Fuel distributors monitored to prevent speculation</li> <li>• High-yielding seeds provided to small farmers</li> <li>• Seeds and fertilisers sold at subsidised prices to selected farmers</li> <li>• Bank minimum reserve requirement doubled from 8 to 16 percent</li> <li>• 15 percent cap put on real estate lending</li> <li>• Minimum capital requirement for commercial banks increased</li> </ul>	<ul style="list-style-type: none"> <li>• Remove taxes on agricultural inputs, and raise taxes on luxury items (cars, alcohol and cosmetics)</li> <li>• Increase agricultural productivity</li> <li>• Expand irrigation coverage and cultivation land</li> <li>• Store grain in rural areas and at farm/provincial/national level</li> <li>• Enhance production through increased irrigation of the second rice crop</li> <li>• Reduce post harvest losses</li> <li>• Improve information database to complement policy intervention</li> </ul>

Source: Hay (forthcoming); IFAD (2011)

Policy interventions to control aggregate demand during the crisis were effective in curbing inflation, though the magnitude of the impact has yet to be investigated empirically. Realising that regulatory tightening to control aggregate demand was not the only approach needed to keep inflation at bay, the government also turned to fiscal tightening. Fiscal policy is believed to affect aggregate demand. In Cambodia, fiscal policy intervention did not raise taxes, focussing instead on improved revenue collection and monitoring needless current administrative expenditure. Although there was a current budget surplus, the impact of fiscal tightening on inflation was minimal.

Macro responses were less effective in addressing the soaring food prices caused by external forces – rising international food and oil prices and the weak US dollar. Here, the only immediate measure was to ban exports and release stocks of agricultural commodities. In Cambodia, the selling of rice at subsidised prices during the inflationary peak drove down the domestic price, but the impact on the world rice market was not favourable. Restricting exports only decreased world food supply and consequently contributed to further increases in prices.

The government performed well by removing restrictions on pork imports (imposed before the crisis to control the spread of disease) from neighbouring countries. Lifting the ban dampened not only the pork price but also those of other foods like fish and beef due to substitution effects. Although the impacts are debatable, the

government's subsidy of fuel and electricity was perhaps the only way to cool prices and reduce living costs. Fixing the reference price for fuel tax helped smooth the impact of rising fuel costs due to international oil price fluctuations. In addition, zero taxes on agricultural inputs, free high-yielding seeds and subsidised seed and fertiliser prices all proved essential.

In Cambodia, food prices began to surge again from the second quarter of 2009, but there have been no immediate responses by the government like the ones in 2008. This might be because the government has been able to keep overall inflation under control (below 10 percent) irrespective of food prices. However, the government has put more emphasis on long-term policy to promote agriculture: the zero tariffs on agricultural inputs is still in effect and a new rice policy has been initiated to increase production and exports, allocating USD300 million over two years to improve rice irrigation systems and expand food reserves (ADB 2011). Although this broad policy does not aim to address food prices directly, it provides incentives for farmers to increase production, thus increasing domestic and world food supply and reducing the risk of food crisis and food insecurity.

## **5.6 SUMMARY OF KEY FINDINGS, CONCLUSIONS AND POLICY OPTIONS**

Using household survey data, this paper primarily investigates the first-order welfare impact of high food prices on poor households in Cambodia. To measure the effects, we adopted a simple model in which patterns of a household's food production and consumption determine whether it is a net food buyer or seller. We also examined the causes of domestic food price increases, and policy responses to address the impacts and control prices.

In line with global trends, agricultural prices in Cambodia rose significantly in 2008 and continued to show an upward trend in 2011. We find that international commodity prices, energy prices and the weak US dollar remained the primary causes of domestic food price increases in 2011. We also note that the high inflation rate in 2008 was mainly due to domestic demand pressure (real estate boom), commodity and oil price hikes and the weak US dollar. By contrast, inflation in 2011 was lower. Food prices, however, remain high, reflecting higher global commodity and oil prices and the persistent weakness of the US dollar. In addition to descriptive analysis, VAR modelling reconfirms that external factors are part of Cambodia's food price inflation. The results highlight specific evidence that external food and oil shocks account for just a small proportion of food price inflation, while inflationary expectations account for most of it. This implies that food price inflation is not entirely due to outside factors beyond the government's control.

As for the impact, we argue that the increase in food prices diminished household welfare unevenly across income groups, hitting the poorest the hardest. Effects on poverty were dramatic, and the results are consistent with international literature. The poorest suffered more as their net benefit ratios were lower than for richer groups. In rural areas, most poor households are not net rice sellers; their rice production is

insufficient to feed the whole family the full year round. Those with high net benefit ratios are richer families with high food production surpluses, especially rice. The impact on poverty is less striking but still significant if the rice price alone increases, other food prices remaining constant. This finding suggests that for a rice exporter like Cambodia, a rising rice price does not necessarily benefit the poor, but on the contrary reduces their purchasing power.

The considerable policy interventions by the government during the crisis would have reduced the negative effects of rising prices, though the magnitude of impact needs further investigation. Monetary, fiscal and exchange rate responses were all essential and effective in curbing general inflationary pressures rather than that specifically on food, though their indirect impact on food prices cannot be ruled out. Direct responses to soaring food prices were mostly short-lived, while some trade policies resulted only in market distortion. Apart from its previous commitment to promoting agriculture, particularly rice, and strengthening social protection and social safety nets, the government has instigated few short-term policies in response to the recent upsurge in prices. Since most social protection spending appears to target public employees and formal sector workers, it would be beneficial to expand the target groups to include informal sector workers i.e. the self-employed or employees of non-registered enterprises, who account for the largest proportion of the total labour force. CDRI (2002) estimated that 95 percent of the labour force was employed in the informal sector in 2001, while the Economic Institute of Cambodia (EIC) estimated 85 percent (cited in ILO 2006).

Policies to address food price shocks range from short- to long-term. For short-term responses, the government needs to maintain social safety nets, which include conditional cash transfers, food-for-work schemes and food stamps. Without such immediate responses, vulnerable groups, including urban poor and landless households, could face social and economic collapse, malnutrition and deep poverty. The need for a strong social safety net in Cambodia has been echoed in many research publications. We join them in emphasising that such programmes are indispensable; however, they come at a cost, especially given the country's limited financial resources and institutional capacity. Mechanisms to channel resources have to be effective and transparent for support to reach the right targets. Target groups should comprise the most vulnerable and poorest. Tools to identify those groups, such as the Identification of Poor Households Targeting Programme of the Ministry of Planning, should be expanded nationwide.

Medium or long-term responses need to be considered alongside short-term policy interventions. One of the basic causes of food price inflation is imbalance between demand and supply. Many scholars and international organisations working in the food sector believe that the neglect of rural development and the scant resources devoted to agricultural research and development to foster innovation and productivity are partly to blame for the food price shock. This is especially relevant to Cambodia. One key message is that the country needs to stay focused on promoting agriculture.

It is good news that the government has reasserted its commitment to promoting rice production and making Cambodia one of the biggest rice exporters in the world by 2015. Not only is this concerted effort critical in spurring economic growth, it is



paramount for ensuring food self-sufficiency, reducing the risk of food insecurity, and stabilising food prices. Our recommendation—to go beyond rice to embrace more foods—is ambitious. While rice will continue to play a vital role, Cambodia’s endowments of land and labour allow it to diversify and strengthen the production of other food crops as well. Building and upgrading hard and soft infrastructure, i.e. roads, irrigation, energy/electricity, agricultural research and extension, land management, credit system, marketing, trade logistics and facilitation, and processing capacity, is key to providing spill-over effects for the whole sector.

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# The Global Financial Crisis and Its Impact on the Rural Labour Market in Cambodia

by HING Vutha<sup>1</sup>

## 6.1 INTRODUCTION

Cambodia's rapid economic growth<sup>2</sup> since the mid-1990s has led to significant changes in the country's labour market especially in terms of increased employment<sup>3</sup>, shift in employment structure<sup>4</sup> and improved outcomes for workers. Labour market outcomes improved more or less in parallel with the growing trend towards labour migration. In 2008 there were 2.5 million recorded internal migrant workers (NIS 2010), 8954<sup>5</sup> migrants registered as working abroad officially and an estimated 180,000 working abroad unofficially.

By the onset of the global financial crisis, Cambodia's labour market had started to deteriorate, evidenced by job losses, worsening working conditions, declining real wages and reverse migration. Kang *et al.* (2009) estimated that in the textile and clothing sector, approximately 27,000 jobs were cut in 2008 followed by an additional 19,000 job losses due to factory closure<sup>6</sup> or production slowdown in 2009, while in the construction sector around 36,500 jobs were cut in 2008 and another 25,600 slashed in 2009. Before the crisis, garment workers normally had 2-4 hours of overtime per day, but this was abolished during the crisis and on some days workers were sent home after just 3-4 hours of work (*ibid*). In terms of real wages, the income of about 34 percent of garment workers fell by an average of USD16 per month, a decrease of about 20 percent (*ibid*). Tuk-tuk drivers in Siem Reap earned around USD15 per day during the high season before the crisis, but in 2009 they made only USD5 per day. Vulnerable workers' real daily income fell on average by 21 percent between November 2008 and November 2009 (CDRI 2009). There was also a marked trend of reverse migration and consequent sharp decline in remittances due to decreasing demand for labour in both local labour markets and migrant-receiving countries. Turk (2009) found that some laid-off workers returned to rural areas, reflected in the number of "room to

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<sup>1</sup> Hing Vutha is a research fellow at CDRI.

<sup>2</sup> Annual GDP (gross domestic product) growth during 1994-2008 averaged 8.5 percent.

<sup>3</sup> Employed labour force in 2008 totalled approximately 6.8 million, reflecting employment growth of 43.3 percent or annual average growth of 3.6 percent since 1998 (NIS 2010).

<sup>4</sup> Agriculture employed about 81.4 percent of the labour force in 1995, but this share had shrunk to 55.9 percent by 2007 (IMF 2009). Employment in the industry sector increased tremendously from 2.9 percent of the total employed workforce in 1995 to 15.4 percent in 2007, while employment in the services sector doubled from 15.7 to 28.7 percent.

<sup>5</sup> The data was derived from the Department of Statistics, Ministry of Labour and Vocational Training.

<sup>6</sup> According to the Garment Manufacturers Association of Cambodia (cited in Kang *et al.* 2009), 60 factories have closed since 2008.

let” sign boards, and that household income dropped dramatically, by as much as 75 percent for highly remittance-dependent households.

All the above-cited studies on the impacts of the global financial crisis on nation-wide labour market outcomes were conducted at the onset of the crisis. None of them examined the effects of the crisis on the rural labour market. This knowledge gap is the prime reason for this study, which attempts to answer the question: To what extent has the global financial crisis affected the rural labour market in Cambodia?

## **6.2 A BRIEF LITERATURE REVIEW**

The labour market reacts to economic crisis in a number of ways. First, when the demand for labour—especially in the formal sector—falls, there is a shift from formal, high value-added wage employment to informal, lowly productive employment. As a result, formal employment will contract whereas informal and vulnerable employment will expand. The outcome for the labour market is a change in employment structure. Second, falling demand for labour puts downward pressure on wages, creating disincentives to participate in the labour market. The likely outcome is a decline in the employment participation rate. Third, laid-off workers unable to find a job in urban areas tend to seek rural work opportunities, especially in the agricultural sector where the cost of entering the labour market is very low. This reverse migration leads to reduced remittances and lower rural sector wages. Fourth, falling wages and dwindling remittances force many households, especially the poorest and most vulnerable, to increase their labour supply by working more hours, sending children out to work, or married women entering the labour market. The following sections present empirical evidence showing the impacts of economic crisis on major labour market outcomes.

### **6.2.1 Reduced Labour Demand and Increased Unemployment**

An inevitable outcome of economic crisis is job losses and higher unemployment. The 1997 Asian financial crisis adversely affected employment in several Asian countries: unemployment rose significantly in Korea (6.3 percent) and Thailand (5.2 percent) and more modestly in Indonesia (3.65 percent) and the Philippines<sup>7</sup> (World Bank 2001). In the case of the 2008 global financial crisis, the scale of effect on unemployment has been far greater. International Labour Office (ILO 2009a) projections estimate that global unemployment possibly increased by 29 million (lowest scenario) to 51 million (highest scenario) between 2007 and 2009. This corresponds with the global unemployment rate, which reached 6.5 to 7.4 percent in 2009. The unemployment rate in the United States jumped to a 15 year high of 6.7 percent by 2008-end, leaving 2.8 million jobless in its wake (OECD 2008). Unemployment in OECD countries was also projected to increase 6.3 percent by 2008-end (*ibid*), while employment in the 27 European Union member states contracted by 1.9 percent (Hijman 2009). Young adults and women were more seriously affected by the crisis. The number of global unemployed youth was projected to increase by between 4.9 million and 17.7 million

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<sup>7</sup> Unemployment rate in the Philippines before the Asian financial crisis was already high at 7.75 percent, and then rose to 8.42 percent after the crisis.

from 2008 to 2009, while increases in unemployment rates for women were expected to be higher than for men (ILO 2009a). In Southeast Asia, the youth unemployment rate in 2008 stood at 15 percent, while the unemployment rate for women was projected to rise by 5.7 percent compared to 4.9 percent for men (Sziraczki *et al.* 2009).

### **6.2.2 Reduced Real Wages**

The World Bank (2001), the Development Analysis Network (1999) and Beegle *et al.* (1999) assessed the impact of the Asian financial crisis on real wages and found that real wages decreased in Korea, Thailand, Malaysia, Indonesia, the Philippines and Cambodia. The decline was particularly striking in Indonesia where real wages fell by 41 percent (World Bank 2001), and in Cambodia where the earnings of vulnerable workers in Phnom Penh (scavengers, cyclo drivers, vegetable traders and porters) plunged substantially in real terms (DAN 1999). The ILO's annual study of global wages shows that global growth in real wages slowed dramatically in 2008 due to the global economic crisis, and was expected to drop even further in 2009 despite signs of possible economic recovery (ILO 2009b). In a sample of 53 countries for which data is available, growth in real average wages in the median country declined from 4.3 percent in 2007 to 1.4 percent in 2008 (*ibid*).

### **6.2.3 Changed Employment Structure**

During the Asian financial crisis, waged employment declined substantially in Indonesia, Korea and Thailand and more modestly in Malaysia, whereas non-waged employment (employers, self-employed, unpaid family workers) increased (World Bank 2001). In Indonesia and Thailand, urban to rural migration was an important response to the crisis (*ibid*). Many Thai overseas migrant workers returned and many who had lost jobs in urban areas sought rural work opportunities (DAN 1999). In Cambodia, the flow of labour into subsistence farming increased as the global economic crisis hit and laid-off workers returned home to work on family farms (Kang *et al.* 2009).

## **6.3 METHODOLOGY AND DATA**

The analytical framework is adapted from a general concept of the impacts of the global financial crisis on the labour market. It examines the evolution of key labour market indicators: (i) employment participation rate, (ii) employment structure, (iii) wage rate, and (iv) urban to rural (reverse) migration trend. The study compares these labour market outcomes over three periods – pre-crisis (2008), crisis-hit (2009) and recovery (2011).

Data for this study comes from three household surveys conducted by CDRI – one in 2008 for the Poverty Dynamics Study, another in 2009 for the Rapid Assessment of Global Financial Crisis Study, and the third in 2011 for the Global Financial Crisis and Vulnerability Study. Nine study villages were selected from the country's four main rural agro-ecological regions: the Mekong Plains (Ba Baong and Prek Khmeng villages), the Tonle Sap (Krasang, Andong Trach and Khsach Chi Ros villages), the Upland Plateau (Dang Kdar, Kanchor and Trapeang Prei villages), and the Coastal Region

(Kompong Tnoat village). The household was the unit of survey and a structured questionnaire was the survey tool. In total, 1005 households were interviewed in 2008, 90 households were surveyed in 2009, and the same 1005 households selected for the 2008 survey were re-interviewed in 2011.

The best way to assess the impact of the global financial crisis is by comparing indicators across all three periods using panel data. However, because the 2009 survey used a small sample, it does not allow us to extract full panel labour market outcomes. To solve this dilemma, we constructed labour market indicators for two different scenarios. Scenario 1, called the “balanced panel”, compares panel data on indicators extracted from the 2008 and 2011<sup>8</sup> surveys with data on the indicators for the 2009 survey of 90 households. Scenario 2, called the “90 household panel”, comprises panel data on the same 90 households across the three periods. In the absence of full panel data, the comparison of labour market outcomes between the two scenarios allows us to check the consistency and accuracy of data. Ideally, the outcomes of each scenario’s dataset should not vary significantly.

## 6.4 KEY FINDINGS

### 6.4.1 Effect on Employment Participation Rate

The data in Table 6.1 shows that employment participation<sup>9</sup> in the rural labour market during the crisis increased from 82.5 percent in the pre-crisis period to 85.6 percent, and then fell to 81.0 percent in 2011. The outcomes derived from the 90 household panel show a similar trend, enabling us to argue that people in rural villages tend to engage more in the labour market during a crisis but relax a little during recovery. Men tend to be more active than women in seeking employment during pre-crisis and recovery periods, but the opposite trend is apparent during the crisis-hit period. The difference, though, is not statistically significant.

The increased employment participation rate during the crisis-hit period can be explained by at least three incidences. First, there is a tendency for married women to quit unpaid household work as economic hardship forces them to enter the labour market in order to diversify family income sources. Data reveals that women’s share of household work fell from 7.8 percent in 2008 to 6.8 percent in 2009, and then to 3.4 percent in 2011. Second, more children<sup>10</sup> join the labour force, reflected by the rise in the employment participation rate of children from 45.5 percent in 2008 to 47.3

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<sup>8</sup> Not all the households interviewed in the 2008 survey were available for the 2011 survey, causing attrition bias in the panel data. We addressed this problem by applying inverse probability weighting, which reduced the number of panel households for 2008 and 2011 to 956.

<sup>9</sup> The employment participation rate was extracted from responses to the question put to individual household members to determine their employment status. Answer options were: 1) active labourer, 2) can do some work, 3) study and work, 4) only study, 5) disabled, 6) too old to work, 7) too young to work, and 8) family/house work; answers 1, 2 and 3 were classified as participating in employment.

<sup>10</sup> Defined as persons aged 10 to 14 years.



percent in 2009. Third is the phenomenon of reverse migration as workers move from urban centres and return from abroad to engage in rural economic activities.

Table 6.1: Employment Participation Rate by Gender and Age

	Balanced panel			90 household panel		
	2008	2009	2011	2008	2009	2011
Labour participation rate, by sex						
Both sexes	82.5	85.6	81	82.4	85.6	80.7
Males	84.2	84.4	81.6	86.0	84.6	81.2
Females	80.8	86.7	80.4	78.9	86.5	80.1
Labour participation rate, by age						
Children (10-14 years old)	45.5	47.3	36.7	38.1	47.2	39.7
Youth (15-24 years old)	87.0	92.5	83.4	88.2	92.4	84.3
Adults (25-65 years old)	93.7	97.1	94.3	94.3	97.1	93.5
Family work/house work (%)	7.8	6.8	3.9	8.4	6.7	4.7

Source: CDRI's household survey in nine villages in 2008, 2009, 2011

Table 6.2: Youth Employment by Sector

Sector	Balanced panel			90 household panel		
	2008	2009	2011	2008	2009	2011
Agriculture, forestry and fishing	53.4	55.2	59.8	49.4	55.2	57.5
Manufacturing	11.9	11.5	10.8	12.1	11.5	15.1
Construction	5.5	10.3	4.8	10.8	10.3	13.7
Services	10.0	13.8	21.8	9.6	13.8	12.3
Government services	1.1	1.1	1.3	1.2	1.1	0

Source: CDRI's household survey in nine villages in 2008, 2009, 2011

The youth labour force share of the rural labour market was not negatively affected by the crisis. The employment participation rate of youth during the crisis even increased from its pre-crisis base by about 5 percentage points. In the context of rural labour markets, this marginal effect on youth employment is not surprising. First, a large share of the youth labour force was employed in less affected sectors like agriculture and services. Table 6.2 shows that more than half the youth labour force was engaged in the agricultural sector for the duration of the crisis. In addition, youth employment in the hard-hit manufacturing and construction sectors did not decline significantly. Second, unlike in urban areas, the cost of entry to rural labour markets is usually low, making it easier for youth workers to move from one sector to another.

To explore the impact of economic crisis on employment participation rates, we estimated the probability of participating in employment using a logistic regression model. The dependent variable is the employment participation rate, which takes the value 1 if the individual,  $i$ , is engaged in economic activity and zero if otherwise. The independent variables are age, marital status, household size, and education. Level of education (omitting the category “no education or primary education”) was captured



by two dummy variables: lower secondary (medium education), and upper secondary and above (high education). To capture the effects of the crisis, the model included a year dummy in the equation. Year 2008 is the omitted category, year 2009 is the crisis period, and year 2011 is the recovery period.

The following equation was used to estimate employment participation rates:

$$EPR = \beta_0 + \beta_1 age + \beta_2 agesqr + \beta_3 married + \beta_4 child_{06} + \beta_5 child_{14} + \beta_6 adultma + \beta_7 adultfe + \beta_8 adult_{64} + \beta_9 educ_1 + \beta_{10} educ_2 + i.year + \mu$$

where

*EPR* = employment participation rate (1 if economically active; 0 otherwise)

*age* = age of individual members

*agesqr* = square of age of individual members

*married* = marital status (1 if married; 0 otherwise)

*child06* = number of children (0-6 years)

*child14* = number of children (7-14 years)

*adultma* = number of male adults (15-64 years)

*adultfe* = number of female adults (15-64)

*adult64* = number of elderly (>64 years)

*educ1* = medium education (1 for lower secondary education; 0 otherwise)

*educ2* = high education (1 for upper secondary/tertiary education; 0 otherwise)

*year* = 2008-omitted category; 2009-crisis period; 2011-recovery period

and  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10}$  are parameters to be estimated.

Due to differences in employment participation between women and men, we estimated the rates separately using two datasets: balanced panel and 90 household panel. Table 6.3 presents the regression results and shows the marginal effects<sup>11</sup>.

The estimated marginal effects for men and women indicate that a range of individual and household characteristics drive employment participation. An additional year of age from the mean (29 for men and 30 for women) increases the likelihood of being active in the labour market for both men and women. The likelihood of engaging in employment increases for married men, but decreases for married women.

There is some correlation between household size and employment participation, especially in the case of women. While regression results from the 90 household panel show statistically insignificant variation between employment participation rates for men and women across individuals with various household sizes, some results from the balanced panel highlight significant differences. Having young children (0 to 6 years) does not affect men's employment participation, but it decreases the likelihood of women entering the labour market. This trend is particularly strong in the rural labour market where, having no household help or baby sitter, women have little choice but to stay at home to look after infants. Having a man in the household tends to decrease the likelihood of women being active in employment, whereas the absence

<sup>11</sup> Marginal effects are based on marginal change for continuous variables and change from 0 to 1 for dummy variables using the command *margeff* in STATA.

of a man means that women are more likely to go out to work. Education has modest marginal effects on the probability of being in the labour force for both men and women. Having medium and high education (compared to low education) reduces the likelihood of participating in employment. Although the variation in employment participation rates between individuals with low education and medium education is not significant, the difference between individuals with low education and high education is.

Table 6.3: Drivers of Employment Participation Rate (logit model, marginal effects)

Dep. Variables: EPR	Balanced panel		90 household panel	
Variables	Male	Female	Male	Female
age	0.650*** (0.0300)	0.397*** (0.0206)	0.873*** (0.114)	0.381*** (0.0618)
agesqr	-0.00874*** (0.000413)	-0.00515*** (0.000276)	-0.0105*** (0.00144)	-0.0045*** (0.000841)
married	1.447*** (0.373)	-0.113 (0.147)	-1.983 (1.401)	-1.246*** (0.452)
child06	0.0509 (0.0597)	-0.0961** (0.0477)	0.0438 (0.173)	-0.138 (0.132)
child14	0.0328 (0.0538)	0.0170 (0.0455)	0.0811 (0.156)	0.105 (0.129)
adultma	0.0451 (0.0448)	-0.0785** (0.0390)	-0.00233 (0.122)	-0.0993 (0.0972)
adultfe	-0.0708 (0.0544)	0.0917** (0.0442)	-0.110 (0.155)	-0.00579 (0.115)
adult64	-0.268** (0.106)	0.00572 (0.0937)	0.480 (0.407)	0.186 (0.290)
educ1 (ref: low education)	-0.0617 (0.139)	-0.110 (0.112)	-0.890* (0.511)	-0.381 (0.344)
educ2 (ref: low education)	-1.682*** (0.194)	-1.071*** (0.178)	-1.469** (0.698)	-1.283** (0.569)
year 2009 (ref: 2008)	0.215 (0.275)	0.614** (0.248)	0.0319 (0.417)	0.783** (0.316)
year 2011(ref: 2008)	-0.297*** (0.105)	-0.0632 (0.0902)	-0.648 (0.396)	0.137 (0.303)
_cons	-6.724*** (0.388)	-4.066*** (0.295)	-9.207*** (1.404)	-3.907*** (0.902)
Observation	4257	4311	531	539

Standard errors in parentheses; \* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Source: Author's estimation using data from CDRI's household survey in nine villages in 2008, 2009, 2011

To understand the impact of the crisis on employment participation rates, we included a year dummy in the regression, fixing year 2008 as the reference period. As expected, the regression results show that rates increased in the crisis-hit period and decreased during recovery. Both men and women tended to engage more in employment during the crisis, though the magnitude of engagement for women was greater than for men. The degree of employment participation markedly dropped as the economy started to recover. This empirical result confirms our hypothesis that the employment participation rate in the rural labour market is likely to increase during crisis.

### 6.4.2 Effect on Employment Structure

The crisis has shifted labour market structure in favour of agriculture and services sectors. Employment in agriculture expanded from 52.7 percent in 2008 to 56.6 percent in 2009 and then to 56.9 percent in 2011. Manufacturing employment shrank during the crisis-hit period as garment production and exports were hard hit by lower orders, but later bounded back to above pre-crisis levels. The quick recovery of garment production and exports<sup>12</sup> is largely responsible for this rebound. The crisis seems to have had a mixed impact on the services sector, with employment falling from 21.1 percent in 2008 to 20.4 percent in 2009 and then rising to 24.6 percent in 2011; the 90 household panel data shows a similar trend. Overall, there was a shift in employment structure during and after the crisis, but the magnitude of change was not significant.

Table 6.4: Employment by Sector, percent

	Balanced panel			90 household panel		
	2008	2009	2011	2008	2009	2011
Agriculture, forestry & fishing	52.7	56.6	56.9	52.05	56.7	56.8
Manufacturing	7.7	6.2	10.1	7.8	6.3	12.7
Construction	3.8	7.5	3.6	4.6	7.6	5.5
Services	21.1	20.4	24.6	21.0	20.1	20.9
Government services	2.4	2.2	3.1	1.8	2.2	2.3
Others	12.2	7.1	1.6	12.8	7.1	1.8

Source: CDRI's household survey in nine villages in 2008, 2009, 2011

### 6.4.3 Effect on Wages

Average daily wages across all sectors have been adversely hit by the crisis; pre-crisis average nominal daily earnings of USD4.01 significantly decreased to USD2.9 in 2009 before recovering to USD3.54 in 2011 (Table 6.5). Compared to the pre-crisis period, the rate of decline during the crisis was rapid at 38 percent, and then later recovered to around 10 percent. In real terms, the magnitude of the decrease in daily earnings is less but nonetheless remains substantial; the 90 household panel data demonstrates a similar trend though the effect is relatively smaller.

<sup>12</sup> Value of garment and textile exports increased by USD880 million or 30 percent in January-October 2011 compared to the same period in 2010 (MoC 2012).

Table 6.5: Average Daily Earnings

	Balanced panel			90 household panel		
	2008	2009	2011	2008	2009	2011
Daily earning in normal terms (USD)	4.01	2.90	3.54	3.61	2.84	2.94
% change compared to 2008	-	-26.2	-11.1	-	-19.5	-18.2
Daily earning in real terms (USD)	4.01	3.14	3.46	3.61	3.08	2.86
% change compared to 2008	-	-19.9	-13.3	-	-12.7	-20.3

Source: CDRI's household survey in nine villages in 2008, 2009, 2011

#### 6.4.4 Effect on Migration

The data does not allow us to capture the effect of the financial crisis on migration directly. However, the decline in both cross-border migration and remittances can be used as proxies to assess the notion of reverse migration. Table 6.6 illustrates the decline in cross-border migration between the pre- and post-crisis periods. The share of migrant workers accounted for 6.05 percent of the domestic labour force in 2008, then fell to 3.61 percent in 2009 and further to 2.76 percent in 2011.

Although the decrease can be partly attributed to political tension between Cambodia and Thailand, which is the largest host country for Cambodian migrants, it was also partly due to declining labour demand and job availability in migrant receiving countries caused by the global financial crisis. In Thailand, it was projected that foreign workers in manufacturing—particularly factory work and food processing, and in agriculture—particularly crop and livestock farming, would be the most vulnerable to being laid off (Alballa & Ducanes 2009). It was also estimated that some 330,000 jobs in these sectors would be lost (*ibid*). Data from the 90 household panel indicates similar trends, allowing us to affirm that while the crisis discouraged outmigration, migrants who had been laid-off temporarily returned to their home villages.

Table 6.6: Share of Migrant Workers in Labour Force

	Balanced panel			90 household panel		
	2008	2009	2011	2008	2009	2011
Number of migrants to overseas	216	12	117	19	12	8
Labour force	3569	332	4241	313	325	308
% of migrants to labour force	6.05	3.61	2.76	6.07	3.69	2.60

Source: CDRI's household survey in nine villages in 2008, 2009, 2011

The sharp decline in remittances in both absolute and relative terms is illustrated in Table 6.7. Average remittance per recipient household from international migration in 2008 was USD83.66 or 6.6 percent of average total household income, dropping to USD14.69 in 2009 before recovering to USD38.41 in 2011. In relative terms, the share of remittance to total income fell from 6.6 percent in 2008 to 1.8 percent in 2009 and

2.0 percent in 2011. The decline in remittance flows during and after the crisis is clearly explained by the falling number of migrant workers.

Table 6.7: Remittance Income Received by Migrants' Households

	Balanced panel			90 household panel		
	2008	2009	2011	2008	2009	2011
Remittance from migration (USD)	83.66	14.69	38.41	68.19	14.67	13.95
% change in remittance (compared to 2008)	-	-82.4	-54.1	-	-78	-79
Total income (USD)	1270.7	835.4	1878.6	970.2	835.4	1133.6
% of remittance to total income	6.6	1.8	2.0	7.0	1.8	1.2

Source: CDRI's household survey in nine villages in 2008, 2009, 2011

## 6.5 CONCLUSION

Descriptive statistics and empirical evidence support the hypotheses that as a result of global financial crisis, employment participation in rural labour markets increases, employment structure shifts towards agricultural and informal sectors, real wages decrease, and migration reverses from overseas and urban labour markets to rural labour markets.

At least three important observations surface from this case study. First, while the national labour market was adversely affected by the crisis in such aspects as job cuts, overtime bans and real wages decline, the spill-over effect on the rural labour market seems to have been minimal. Except for the decline in real wages and the higher child employment participation rate, other labour market outcomes tended to be neutral. It is encouraging to see the rise in the employment participation rate, the slight shift in employment structure and the return of some labour force. The latter point relates to the second lesson learnt, that the rural labour market is the last resort for returning migrants and laid-off urban workers seeking paid work in difficult economic times. This could also imply that rural areas served as a safety net for highly vulnerable workforce affected by the crisis. On a final note, the data used in this analysis was drawn from survey-type information, which could not capture the in-depth dynamics of reverse migration (from both overseas and urban areas) or how returnees were absorbed into the rural labour market during the crisis. Future research should investigate these particular aspects of the impact of the global financial crisis to redress this knowledge gap.

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# Impact Assessment of Farmer Organisations on Agricultural Productivity: Evidence from a Rural Household Survey in Cambodia

by THENG Vuthy, KEO Socheat and KHIEV Pirom<sup>1</sup>

## ABSTRACT

This article draws on a CDRI survey “Impact Assessment of Farmer Organisations on Food Security for the Rural Poor”, a study supported by the World Bank and AusAID (Theng *et al.* 2013). The study uses propensity score matching (PSM) to estimate the direct impacts of participation in farmer organisations (FOs) on revenues from rice and livestock production, the main proxies of household agricultural productivity, using cross-sectional data compiled from a survey of 330 FO member and 365 non-member households in Battambang, Kompong Thom, Svay Rieng and Kampot provinces. Findings reveal that overall, FOs (except for farmer groups) have a significant and positive effect on livestock production. Agricultural cooperatives have a positive effect on rural household food security through improved rice and livestock productivity. This is attributed to training on good agricultural practices organised by support agencies, not the collective strength of the organisation or the collective action of its members. Inputs are bought and produce sold largely on an individual member basis, which means FO members’ input costs and output prices are similar to those of non-members. Contract farming schemes, with the public sector creating an enabling environment conducive to private sector investment, can play a crucial role in providing a package of production support services and improved input supply and market access to FOs, thus supporting FOs’ sustainability and delivering more benefits to FO members.

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<sup>1</sup> Dr Theng Vuthy is a research fellow and programme coordinator, Keo Socheat is a research associate and Khiev Pirom is a research assistant at CDRI.



## 7.1 INTRODUCTION

### 7.1.1 Background

Majority of the poor in developing countries typically live in rural areas where the main occupation is small-scale farming. The potential of smallholder agriculture to stimulate pro-poor growth has been recognised by the international donor community and national governments alike. The major obstacle to catalysing this vast potential is farmers' ability to increase agricultural productivity. The rationale behind the establishment of farmer organisations is to ease technical constraints to smallholder farming by providing effective and collective production support services, enhancing self-help and collective power to regulate markets, and linking rural producers to market chains (Peacock *et al.* 2004; Bingen *et al.* 2003; Chirwa *et al.* 2005). In theory, FOs should be able to strengthen farmers' bargaining power with external buyers and reduce transaction costs, leading to increased incomes and food security and hence sustained agricultural growth and poverty alleviation (Barham & Chitemi 2009; Bachke 2010).

In Cambodia, over 90 percent of the poor live in rural areas and rely on agriculture for their primary sources of livelihood. The agricultural sector is characterised by a predominance of small-scale farming: about 84 percent of farmers own less than one hectare of agricultural land (World Bank 2005, 2009a). In addition, the sector constitutes a large share of national output; it contributed about 34 percent (current term) of the country's GDP in 2010 (NIS 2011) and grew by more than 5 percentage points in 2008, 2009 and 2010, accounting for 27.3 percent of total GDP at constant 2000 prices.

The progress of Cambodia's agricultural development and therefore smallholder farmers' productivity has been constrained by inadequate rural infrastructure (particularly irrigation and roads), insecure land ownership, insufficient distribution of technology and agricultural extension services, poor credit access, inferior marketing information, lack of risk (flood, drought, insect/pest infestation) management, and low public investment in agriculture (World Bank 2009b; Theng & Koy 2011). Several studies on Cambodia confirm the experience of other developing countries, that smallholder farmers will not be able to leverage their productivity or bargaining power vis-à-vis external buyers unless institutional arrangements for smallholders to form rural producer organisations are put in place (Couturier *et al.* 2006; Nou 2006; Bingen *et al.* 2003; Chirwa *et al.* 2005; Peacock *et al.* 2004; Abaru *et al.* 2006; Barham & Chitemi 2009). Farmers clearly cannot overcome these constraints alone. Recognising that smallholder farming is key to inclusive growth, and the need for public-private sector institutional arrangements that both foster agricultural development and support smallholder livelihoods, the government has prioritised the promotion of farmer organisations as stipulated in the Rectangular Strategy 2003-08, the National Strategic Development Plan 2006-10 and the Strategy for Agriculture and Water 2006-10 (Chea 2010).

The Cambodian government has articulated its vision of creating FOs to stimulate agricultural and private sector-led rural development, yet there have been few studies on the effect of FOs on rural livelihoods in Cambodia. Existing studies attempt to determine the status of FOs and the immediate problems and factors affecting their success, and to identify policies and legal framework to promote FO development in Cambodia (Couturier *et al.* 2006; Nou 2006; Ngin 2010; Chea 2010). However, there is no available research on the extent to which FOs impact on rural smallholder livelihoods in Cambodia in general let alone the effects of different types of FO, or the impact of their legal recognition on FO membership. Better understanding of the benefits FO membership offers and the challenges FOs face can usefully inform and re-frame policy to improve FOs' performance and better support smallholders for sustained growth and poverty alleviation.

### **7.1.2 Objectives**

The main objectives of the impact assessment are to: 1) analyse household characteristics that determine participation in FOs; 2) assess the impact of FOs on food security and livelihoods of the rural poor; and 3) provide specific recommendations based on empirical findings to improve legal and regulatory frameworks on FOs.

### **7.1.3 Definition of Farmer Organisations**

Farmer organisations can be defined as “A collective entity of farmers in a village or in a number of contiguous villages who have come together with common goals for economic benefit related to agricultural activities”. In other words, FOs are created by farmers and rural producers to provide services to members to improve agricultural income or employment opportunities (Couturier *et al.* 2006: 13).

This study focuses on three different types of FOs: farmer groups (FGs), farmer associations (FAs), and agricultural cooperatives (ACs). FGs are small and informal with 5 to 30 members, while FAs and ACs are large and formal (i.e. registered with Ministry of Interior (MoI) for FAs and the Ministry of Agriculture Forestry and Fisheries – MAFF for ACs) with 30 to 150 members.

## **7.2 METHODOLOGY**

### **7.2.1 Data Collection**

The study employed quantitative methods. A structured questionnaire was designed to gather information on FO member and non-member households for empirical analysis. Household heads, or their spouse or other adult family members were interviewed face-to-face. Sixteen hired enumerators were trained in primary data collection. The survey household questionnaire was field tested to ensure data quality. Four interview teams, each with four members including a team leader, were formed. The team leaders were trained in the method for selecting sample households for interview and checking the quality of their team's work. To facilitate data collection and select FOs and households for interview, the team leaders worked closely with a

provincial extension officer. Data collection was carried out in June 2011. Data coding, cleaning and entry using SPSS was closely supervised to ensure accuracy. Data analysis was done using STATA.

### 7.2.2 Sample Selection

Determining the sample involved three steps. The first was the selection of 54 FOs based on simple random sampling and proportionate to the number of FOs located in each province. The number of farmer groups (FG), farmer associations (FA) and agricultural cooperatives (AC) was calculated based on the proportions of 50, 30 and 20 percent, respectively, of the total selected FOs, resulting in 29 FGs, 15 FAs and 10 ACs.

The second step was to identify the target districts. Two to three districts that have a high density of all three FO types were selected in each province. The exception was Svay Rieng where FGs were predominant in many districts, and just a few FAs and ACs were present in only few districts. Because of this, one district with a high number of FGs and another with both FAs and ACs were chosen. After selecting the target districts, the FGs, FAs and ACs in each district and their locations were listed. Then the sample FGs, FAs and ACs were drawn using systematic random sampling.

The third step was the selection of household interviewees. For the survey of FO member households, 5, 7 and 8 members were randomly selected from each randomly selected FG, FA and AC, respectively. For the survey of non-FO members (comparison group), 6 to 9 households were selected using systematic random sampling from the same villages or communes that FO members were selected from. The total survey sample comprised 699 households: 330 FO members and 369 non-FO members.

### 7.2.3 Study Hypotheses

In the empirical literature, participation in FOs is based on the models of binary or dichotomous choice, where a household chooses to participate in an FO when it perceives benefits from participation. This model is expressed in the following formula:

$$I_i^* = z_i\beta_i + u_i, \quad I_i = 1 \text{ if } I_i^* > 0; \quad I_i = 0 \text{ if } I_i^* \leq 0 \quad (1)$$

where  $I_i = 1$  indicates participation of a household  $i$  in FO, which is denoted by  $I_i^* > 0$  if the perceived benefits from participation are positive, and  $I_i = 0$  if otherwise;  $z_i$  is a vector of the household  $i$  characteristics<sup>2</sup>;  $\beta_i$  is a vector parameter or estimator; and  $u_i$  is the random error term.

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<sup>2</sup> For further details about households likely to join an intervention project, please see Davis *et al.* (2010); Miyata *et al.*, (2009), Ali and Abdulai (2010), and Bachke (2010).

Thorp *et al.* (2005) point out that the poor may be less likely to form a group in the first place, and the poorest might even be excluded from successful groups due to their lack of assets and limited access to networks and markets. In Cambodia, however, FOs are dependent on support agencies because of farmers' limited management skills and general low level of education (Couturier *et al.* 2006). FO participation in Cambodia can help poor farmers with limited assets (collateral) to access credit at lower interest rates and extension services that distribute production technologies, which seems to partly contradict Thorp *et al.* (2005). Thus, the first set of hypotheses is:

**Hypothesis 1a:** Households with higher levels of human capital are less likely to participate in FOs.

**Hypothesis 1b:** Households with higher levels of productive capital are less likely to participate in FOs.

To link the participation behaviour of households to the potential outcomes of participation, we adopted a risk-neutral form that maximises profit,  $\pi$ , through increased agricultural productivity from previous studies (Bachke 2010; Ali & Abdulai 2010; Davis *et al.* 2010). Therefore, it is hypothesised that:

**Hypothesis 2a:** FO members are likely to get higher revenues from rice farming than non-FO members.

**Hypothesis 2b:** FO members are likely to get higher revenues from livestock farming than non-FO members.

## 7.3 EMPIRICAL FINDINGS

### 7.3.1 Descriptive Statistics

The data collected included information on household socioeconomic and farming characteristics such as input use, production costs, productivity (yield) and produce prices. Four households were dropped from the sample due to the presence of outliers, reducing the total to 695 households (330 FO members). Tables 7.1 and 7.2 list the definitions and descriptive statistics for the variables used in the empirical analysis.

Results of the t-statistics reveal some apparent differences in household characteristics between FO members and non-members, in particular education, literacy, and unemployment status of the household head. More members than non-members can read and write, though members' illiteracy is perceived to be one of the main challenges facing FOs. However, the application of propensity score matching (PSM) gives a more comparable sample of members and non-members of FOs.

Overall, the outcome productivity variables for rice and livestock were generally higher for member households. Revenue from livestock production was significantly higher for FO members, but no statistically significant differences were found for rice revenue per hectare.

Further analysis by decomposing the sample member households into sub-samples, i.e. FG, FA and AC, shows the different effects of participation in FOs. The differences between AC member and non-member households are significant at the 5 percent level: revenues from both rice and livestock were higher for AC members (Table 7.2). The differences in livestock revenue between FA members and non-members are also statistically significant.

Table 7.1: Differences in Household Characteristics of Members and Non-members (sample mean)

Variables	Description	Members	Non-members	Difference	t-Stat
<i>Independent/explanatory variables (control variables)</i>					
<i>Head of household characteristics</i>					
Age of HHH	Age of household head	48.47	48.41	0.06	0.06
Education of HHH	Number of years of HHH schooling	4.35	3.64	0.71**	2.81
Literacy of HHH	HHH can read and write(dummy)	0.72	0.60	0.12***	3.22
HHH male	HHH is male (dummy)	0.75	0.80	-0.05	-1.54
HHH married	HHH is married (dummy)	0.82	0.82	0.00	0.07
Unemployment of HHH	HHH is unemployed (dummy)	0.29	0.39	-0.10**	-2.82
<i>Household characteristics</i>					
HH size	Household size (number of persons)	5.21	5.02	0.20	1.31
Dependents	Dependency ratio (to adults aged 15-65 years)	0.57	0.60	-0.03	-0.62
Agri. income source	Agriculture is primary HH income (dummy)	0.71	0.72	-0.01	-0.41
Credit access	HH access to loan in last 12 months (dummy)	0.72	0.59	0.13***	3.68
<i>Welfare characteristics</i>					
Value of all assets	Total value of assets (0000 riels)	598.69	506.50	92.19**	1.95
Number of households/observations		330	365	-	-

Note: \*, \*\*, \*\*\* indicate statistically significant difference at 10%, 5% and 1% level, respectively.

Table 7.2: Differences in Agricultural Productivity Variables (sample mean)

Outcome variables/Dependent variables		Members	Non-members	Difference	t-Stat
<b>Pooled sample</b>					
Rice	Revenue (0000 riels ha)	186.39	173.51	12.88	1.46
Livestock	Revenue (0000 riels)	465.12	376.80	88.32**	1.90
<b>Farmer group (FG)</b>					
Rice	Revenue (0000 riels per ha)	177.52	173.51	4.01	0.37
Livestock	Revenue (0000 riels)	333.89	376.80	-42.90	-1.00
<b>Farmer association (FA)</b>					
Rice	Revenue (0000 riels ha)	172.24	173.51	-1.27	-0.10
Livestock	Revenue (0000 riels)	557.47	376.80	180.67**	2.50
<b>Agricultural cooperative (AC)</b>					
Rice	Revenue (0000 riels per ha)	219.27	173.51	45.76***	3.38
Livestock	Revenue (0000 riels)	589.75	376.80	212.95**	3.19

Note: \*, \*\*, \*\*\* indicate statistically significant difference at 10%, 5% and 1% level, respectively; 10a is equal to 1000 m<sup>2</sup>.

### 7.3.2 Analysis of FO Participation Characteristics

The results of logit estimation from equation (1) for the FO participation determinant show that age of household head has a positive impact on household participation in FOs (Table 7.3), which contradicts recent studies by Bachke (2010) and Davis *et al.* (2010) where age was found to be a negative determinant.

Results indicate a positive relationship between household head age and the propensity to participate in FOs; however, older household heads are less likely to participate<sup>3</sup>. Disaggregation by FO type reveals that age of household head has a positive and significant effect on participation in FAs and FCs, but not FGs (see Table 7.3).

Household access to loans shows a positive and significant relationship with the propensity to participate in FOs (pooled and sub-samples), implying that FO members have more access to credit. Survey data after matching shows that more than half the FO members get loans from their FO, albeit there are no significant differences in interest rates and loan amount between members and non-members. This observation confirms those of Couturier *et al.* (2006) and Chea (2010), who report savings and credit as a key activity of many FO types in Cambodia. The same is true for this study, with approximately 67 percent of FO members stating savings and credit to be their main activity. The average loan size received from an FO was 340,000 riels (USD85). Credit access is an endogenous variable determined by an instrumental

<sup>3</sup> The U-shape marginal effect of age is 54 years, i.e. household heads older than 54 are unlikely to participate in FOs.

variable which this study is not able to address, but it does enable us to imply a causal relationship between access to credit and participation in FOs.

Table 7.3: Propensity Score Estimation for FO Participation (Logit Estimation for Pooled Samples)

<b>Explanatory variables</b>	<b>FO</b>	<b>AC</b>	<b>FA</b>	<b>FG</b>
Age of household head	0.134***	0.294***	0.1874**	0.052
Age of household head squared	-0.0012**	-0.0026***	-0.00178**	0.0005
Number of years of household head's schooling	0.0347	0.1095*	0.0661	-0.027
HHH can read and write(dummy)	0.381	0.636	0.260	0.528*
HHH is male (dummy)	-1.025***	-0.644	-1.693***	-0.653
HHH is married (dummy)	0.574	-0.294	1.455***	0.357
HHH is unemployed (dummy)	-0.606***	-0.132	-0.598**	-0.842***
Household size	-0.440**	-0.571*	-0.531**	-0.309
Household access to loan in last 12 months	0.688***	0.531*	0.742***	0.782***
Square of Household size	0.0358**	0.034	0.049**	0.026
Dependents ratio (adults aged 15-65 years)	0.244	0.334	0.128	0.217
Agriculture is primary source of HH income (dummy)	0.0526	-0.119	0.2621	-0.066
Household access to loan in last 12 months	0.688***	0.531*	0.742***	0.782***
Index of household agricultural assets	0.182*	0.182	0.172	0.162
Total value of assets (0000 riel)	0.00087***	0.00265***	0.000289	0.001
Square of asset value	-3.26x10 <sup>-7</sup> ***	-8.48x10 <sup>-7</sup> ***	-1.15x10 <sup>-7</sup>	0.000
Constant	-3.107**	-8.965***	-5.602***	-2.071
<b>Pseudo R<sup>2</sup></b>	<b>0.0734</b>	<b>0.1653</b>	<b>0.1001</b>	<b>0.0608</b>
<b>Number of observations</b>	<b>695</b>	<b>445</b>	<b>470</b>	<b>510</b>

Note: Coefficient is reported; \* statistically significant at 10%, \*\* significant at 5% and \*\*\* significant at 1%.

The index of household agricultural assets has a positive relationship with the household decision to participate in FOs, and is statistically significant at 10 percent level. This implies that a household with productive agricultural assets is likely to participate in an FO. However, when the sub-samples are taken into account, this variable has a positive but not significant impact on participation. One possible explanation is that agricultural assets may be a complementary factor, allowing a household to utilise advice and associated agricultural technical packages offered by its FO (Bernard & Spielman 2009). Conversely, households with limited productive assets may find it difficult to apply new production techniques and thus have a low propensity for participation.



The empirical results imply that there is no relationship between the education of the household head (i.e. human capital) and participation in FOs. The associated probability between household welfare and FO participation is U-shaped, even though there is a positive and statistically significant probability between total value of assets and participation in FOs. The marginal effect shows that when the total value of assets is greater than 13.6 million riels (USD3350), a household is less likely to participate in an FO.

In brief, hypothesis 1a (farmers with higher levels of human capital are less likely to participate in FOs) does not hold, whereas hypothesis 1b (farmers with higher levels of productive capital are less likely to participate in FOs) can be accepted.

### 7.3.3 Impact of FO Participation on Livelihoods

This section presents the results of the average treatment effect of participation in FOs on rice and livestock productivity using both nearest neighbour matching and kernel matching; however, our interpretation is based on kernel matching only. Caliendo and Kopeinig (2008) point out that there is no best algorithm for matching because the selection of algorithm completely depends on the data at hand. In addition, the reason for using PSM is to reduce gaps between members and non-members' characteristics rather than to obtain precise estimates from different algorithm matching estimators.

Although FO members in the pooled sample have higher revenues than non-members do, FO participation does not exert any significant effect on the value (revenue) of rice production (Table 7.4). At sub-sample level, however, the effect of participation in an AC has a positive and significant impact on rice productivity. AC members' average rice revenue is about 376,400 riels (USD92.70) higher per ha than that of non-members, implying that AC member households apply better agricultural techniques. This finding coincides with those of Bratton (1986), Bachke (2010) and Davis *et al.* (2010), but it should be noted that these studies were conducted in other countries.

Table 7.4: Average Treatment Effects of PSM for Rice Crop

Variable	Nearest neighbour matching			Kernel matching		
	Difference (ATT)	T-stat	Treatment/control (n)	Difference (ATT)	T-stat	Treatment/control (n)
<b>Rice revenue/ha (0000 riels)</b>						
Pooled sample	13.82	1.37	292/313	10.40	1.13	301/313
- Farmer group	0.24	0.02	129/313	2.03	0.17	134/313
- Farmer association	19.49	1.28	87/313	-2.68	-0.2	92/313
- Agri. cooperative	19.05	0.95	74/313	37.64	2.46**	73/313

Note: \*, \*\*, \*\*\* indicate statistically significant difference at 10%, 5% and 1% level, respectively; ATT refers to the average treatment effect on the treated (see Theng *et al.* (2013) for technical explanation).

The relationship between AC membership and rice productivity might be because FO members have statistically significant greater access to technical

services than non-members do. About 55-70 percent of FO members had accessed training in production techniques such as improved seed selection, disease and pest control, chemical fertiliser application, composting and planting techniques for rice, compared to only 30 percent of non-members (Table 7.5). Another possible reason for the significant effects of AC membership is that among the three types of FO, AC members have significantly larger loans (2.51 million riels/USD628) than non-members do (1.37 million riels/USD343) at comparable interest rates (3.24 percent vs. 3.55 percent) (Table 7.6). Survey results note that both FO members and non-members' main motive for taking out a loan was to invest in agriculture (Theng *et al.* 2013).

Table 7.5: Pre- and Post-production Services Access (percentage of HHs reporting)

Services /advice	Members		Non-members		Chi <sup>2</sup> -Test	P-Value
	n	%	n	%		
<b>Rice/vegetables</b>						
- Disease and pest control for crops	221	66.97	120	32.88	80.61	0.000
- Planting techniques	243	73.64	145	39.73	80.81	0.000
- Improved crop varieties and seed selection	236	71.52	143	39.18	73.09	0.000
- Chemical fertiliser application	186	56.36	98	26.85	62.47	0.000
- Composting and organic residue management	234	70.91	109	29.86	116.81	0.000
- Irrigation and water management for crops	176	53.33	94	25.75	55.49	0.000
<b>Livestock raising techniques</b>						
- Breed improvement	212	64.24	112	30.68	78.42	0.000
- Housing	232	70.3	124	33.97	91.56	0.000
- Disease control	215	65.15	101	27.67	98.19	0.000
- Feeding and nutrition	207	62.73	95	26.03	95.00	0.000
<b>Market Information</b>						
- Output prices	195	59.09	137	37.53	32.28	0.000
- Input prices	156	47.27	103	28.22	26.91	0.000
- Collective marketing	111	33.64	34	9.32	62.09	0.000
- Where to sell products	167	50.61	99	27.12	40.45	0.000

The average revenue from FO members' livestock production is about 905,500 riels (USD223) per year higher than that of non-members, and this is statistically significant at 10 percent level (Table 7.7). Decomposed by sub-sample, there is a positive and statistically significant impact on FA and AC members' livestock revenues. The difference in livestock revenues between FA and AC members and non-members is 2,074,100 riels (USD510.86) and 1,456,500 riels (USD358.74), respectively, and is significant at 10 percent level only.

Table 7.6: Credit Access in the Past 12 Months

	Members	n	Non-members	n	t-statistics
<b>Pooled sample</b>					
Number of HHs with loan	-	238	-	215	-
Number of HHs without loan	-	92	-	150	-
Average number of loans per HH	1.59	238	1.27	215	4.55***
Average size of loan (0000 riels)	201.04	238	137.19	215	2.49**
Average monthly interest rate (%)	3.31	222	3.55	172	-1.32
Age of loan to total number of loans (months)	9.53	238	8.77	215	0.71
<b>Sub-sample</b>					
Average loan size: FG vs. non-member (0000 riels)	182.24	109	137.19	215	1.44
Average interest rate: FG vs. non-member	3.25	99	3.55	172	-1.37
Average loan size: FA vs. non-member (0000 riels)	194.94	78	137.19	215	1.98**
Average interest rate: FA vs. non-member	3.44	74	3.55	172	-0.44
Average loan size: AC vs. non-member (0000 riels)	250.56	51	137.19	215	2.99***
Average interest rate: AC vs. non-member	3.24	49	3.55	172	1.13

Note: \*, \*\*, \*\*\* indicate statistically significant difference at 10%, 5% and 1% level, respectively.

Table 7.7: Average Treatment Effects of PSM for Livestock

Variable	Nearest neighbour matching			Kernel matching		
	Difference (ATT)	T-stat	treatment/Control (n)	Difference (ATT)	T-stat	treatment/Control (n)
<b>Livestock revenue</b>						
Pooled sample	47.18	0.89	278/297	90.55	1.80*	290/297
- Farmer group	-68.22	-1.53	122/297	-20.81	-0.54	128/297
- Farmer association	232.67	1.91**	87/297	207.41	1.84*	90/297
- Agri. cooperative	-8.12	-0.08	69/297	145.65	1.69*	69/297

Note: \*, \*\*, \*\*\* indicate statistically significant difference at 10%, 5% and 1% level, respectively; ATT refers to average treatment effect on the treated.

Broader access to reliable information and training on good livestock raising practices is a possible explanation for FO members' higher livestock revenues. The survey findings reveal that around 65 percent of households had access to information on livestock raising techniques compared to just 30 percent of non-members (Table 7.6). In addition, FO members received technical support from the Provincial Department of Agriculture (PDA) and NGOs. Non-members acquired knowledge

mainly from neighbours, NGOs and self-study, suggesting that most of them have lower access to livestock husbandry techniques than members do.

In general, participation in FOs has no significant impact on rice farming, but is positively associated with livestock production. By sub-sample, AC membership has a positive and statistically significant impact on both rice and livestock productivity while FA membership has a positive and significant relationship with livestock revenue.

The PSM results suggest that we accept hypothesis 2b (FO members are likely to get higher revenues from livestock farming than non-members), but reject hypothesis 2a (FO members are likely to get higher revenues from rice farming than non-members). Nonetheless, we cannot imply that the AC is the most successful type of FO because some ACs have evolved from former well functioning FGs or FAs.

For participation in rural producer organisations to have a significant impact on smallholder farmers, FOs must provide three fundamental services: advice and training, input supply, and market access (Bratton 1986; Bingen *et al.* 2003; Chirwa *et al.* 2005). FOs in Cambodia fail to offer a complete package of these basic services. Survey results reveal the majority of FO members receive only advice or training from their FO's support agencies, 76 percent access inputs on an individual basis (Table 7.8), and around 81 percent have no output market support. FO members mostly benefit from better access to agricultural extension services. This indicates that FOs in Cambodia have yet to mature, and explains the limited impact of FO membership on productivity.

Table 7.8: Input and Output Market Access (percentage of HHs reporting)

Source of support	Farming inputs				Marketing produce			
	Members		Non-members		Members		Non-members	
	n	%	n	%	n	%	n	%
Neighbours	65	20.90	104	31.42	31	9.54	35	10.17
Local authorities	28	9.00	18	5.44	0	0.00	3	0.87
Supporting agencies	46	14.79	2	0.60	9	2.77	1	0.29
Relatives and friends	15	4.82	15	4.53	3	0.92	5	1.45
Group members of FO	22	7.07	1	0.30	8	2.46	1	0.29
Traders	72	23.15	75	22.66	164	50.46	143	41.57
PDA	34	10.93	21	6.34	0	0.00	1	0.29
Self-buying/access	238	<b>76.53</b>	273	82.48	264	<b>81.23</b>	265	77.03
Other NGOs	31	9.97	21	6.34	11	3.38	2	0.58
Total (n)	553	177.81	531	160.42	490	150.77	456	132.85

## 7.4 CONCLUSION AND POLICY IMPLICATIONS

Empirical evidence suggests that the capacity of farmer organisations to contribute to improved agricultural production is still limited. Improvements in agricultural productivity so far are largely a result of advice and associated technical training in agricultural practices, mostly organised by support agencies. Collective action in the purchase of inputs and selling of agricultural outputs is almost absent, and FO members continue to market their produce individually. These findings suggest that the FO sector in Cambodia is still in the early stages of development. Concerted effort is needed to increase the impact of participation in FOs on livelihoods. The NGO and public (via MAFF's PDA/Office of Agricultural Extension) sectors are actively supporting FOs. By contrast, private sector involvement is barely visible, indicating that FOs are unlikely to be able to operate sustainably. The promotion of a contract farming scheme alongside policy actions to develop FOs can enhance the implementation and sustainability of FOs and help to protect smallholder farmers. This could also pave the way for greater private sector involvement in providing production and marketing services to FOs and supporting greater market access and market development for smallholder farmers. The impact of rural producer organisations on market access and their potential to significantly improve agricultural productivity and food security in developing countries is well documented (Bingen *et al.* 2003; Chirwa *et al.* 2005; Barham *et al.* 2008; Miyata *et al.* 2009; Bernard *et al.* 2009; Markelova *et al.* 2009; Barham & Chitemi 2009).

### 7.4.1 Policy Implications

Given government policy to promote increased paddy rice production and milled rice export through establishing rural producer organisations, and the positive relationship between ACs and rice and livestock productivity, existing FOs should be further supported. Empirical evidence shows that compared to farmer groups and farmer associations, the positive association between agricultural cooperatives and smallholder farmers' improved rice and livestock productivity is the most significant. However, because well-functioning farmer groups develop into agricultural cooperatives, policy should support and promote other types of farmer organisations as well. Public, private and NGO sectors all have roles to play in strengthening producer-marketing organisations and linking small-scale farmers to new market chains. Policy that offers incentives for private sector investment, particularly through contract farming schemes, may help sustain FO operations and improve FO members' access to services, inputs supply and bargaining power, thereby increasing the impact of FO participation on agricultural productivity and livelihood improvements.

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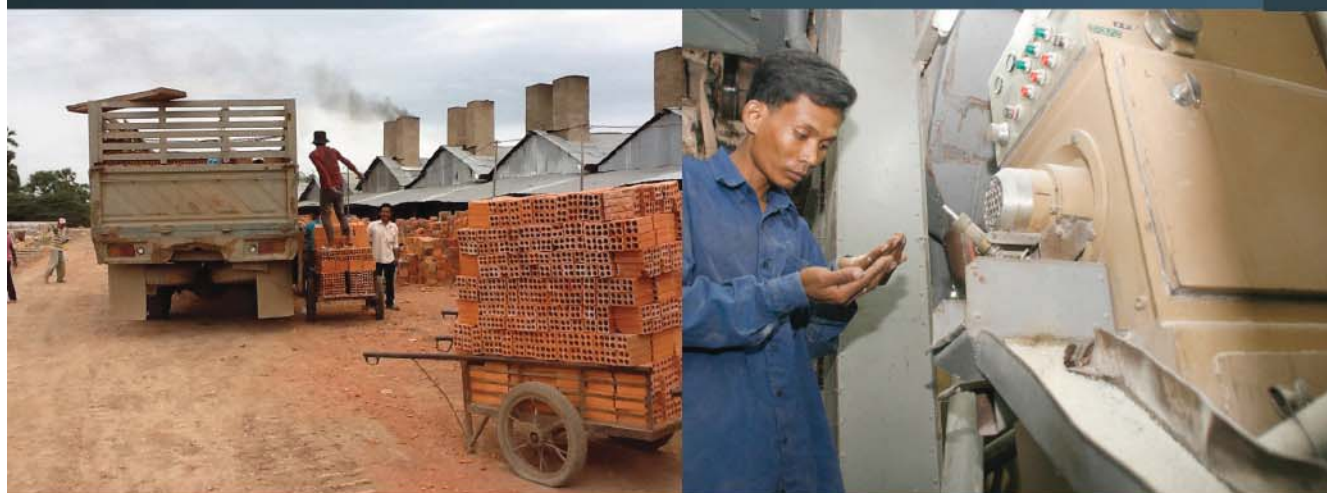
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