



**CAMBODIA**  
*A publication of CDRI—  
 Cambodia's leading independent  
 development policy research institute*  
**DEVELOPMENT REVIEW**

VOLUME 18, ISSUE 1

MARCH 2014

\$4.00

**CAMBODIA OUTLOOK CONFERENCE 2014:  
 THE NEXT FIVE YEARS – REFORM AND  
 COMPETIVENESS IN AN INTEGRATED REGION**

The 8<sup>th</sup> annual Cambodia Outlook Conference, a partnership of CDRI and ANZ Royal, was held in Phnom Penh on 27 February 2014. Leaders from government, the private sector, development partners, the research community and NGOs came together to discuss the theme *Cambodia: The Next Five Years – Reform and Competitiveness in an Integrated Region*. In his opening address, Prime Minister Hun Sen congratulated CDRI and ANZ Royal for their long and fruitful partnership and highlighted the important role of the conference in informing government on areas where policy action is necessary. This paper highlights the major policy issues raised by participants during the conference sessions.



H.E. Dr Sok Siphana, Chair of CDRI Board of Directors, presenting his welcoming remarks at the opening ceremony of the 2014 Cambodia Outlook Conference presided by Prime Minister Hun Sen, Phnom Penh, February 2014

**Introduction**

The 2014 Outlook Conference agenda affirmed a renewed focus on the part of government to diversify and increase the competitiveness of the Cambodian economy to represent the dual realities of impending lower-middle-income status and the realisation of the ASEAN Economic Community (AEC) in 2015.

Prepared by Benjamin C.R. Flower with Kim Sour, Roth Vathana and Sum Sreymom, researchers at CDRI, this article is based on the presentations at the 2014 Cambodia Outlook Conference and draws on the Cambodia Outlook Brief Series available online at [www.cdri.org.kh](http://www.cdri.org.kh). Recommended full citation: Flower, Benjamin C.R., with Kim Sour, Roth Vathana and Sum Sreymom (2014), “*Cambodia Outlook Conference 2014: The Next Five Years – Reform and Competitiveness in an Integrated Region*”, *Cambodia Development Review*, 18(1):1-7.

Following two decades of high GDP growth, the economy has become increasingly complex. New sources of growth will have to be cultivated as per capita GDP rises, and a cornerstone of past growth – low-cost labour – disappears. In addition, Cambodia’s inclusion in the AEC will bring change to its relationship with other regional economies; this will also require a programme of economic restructuring if benefits from increased intraregional trade and investment are to be captured.

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The coming period of transition has implications for both economic policy and for important social and political dimensions. There is recognition from government that with industrialisation, urbanisation and rising per capita GDP, the aspirations of the population are changing in terms of the standard of living and expectations from the political system. Meeting these aspirations is key to success during the next phase of growth. This was reflected in the Outlook Conference agenda, which asserted the government's commitment to follow a path of economic reforms through an overarching framework of inclusive development.

This article presents the main policy priorities highlighted at the conference. The first section details the government's aim to translate high growth into inclusive growth, underling the current issue of secure land ownership. The second section presents human resource development to drive diversification and competitiveness by enabling Cambodia's population to contribute more productively to the economy. The third provides an overview of constraints in the business environment, focusing on SME development, and the fourth section focuses on Cambodia's transport infrastructure as a constraint to economic development.

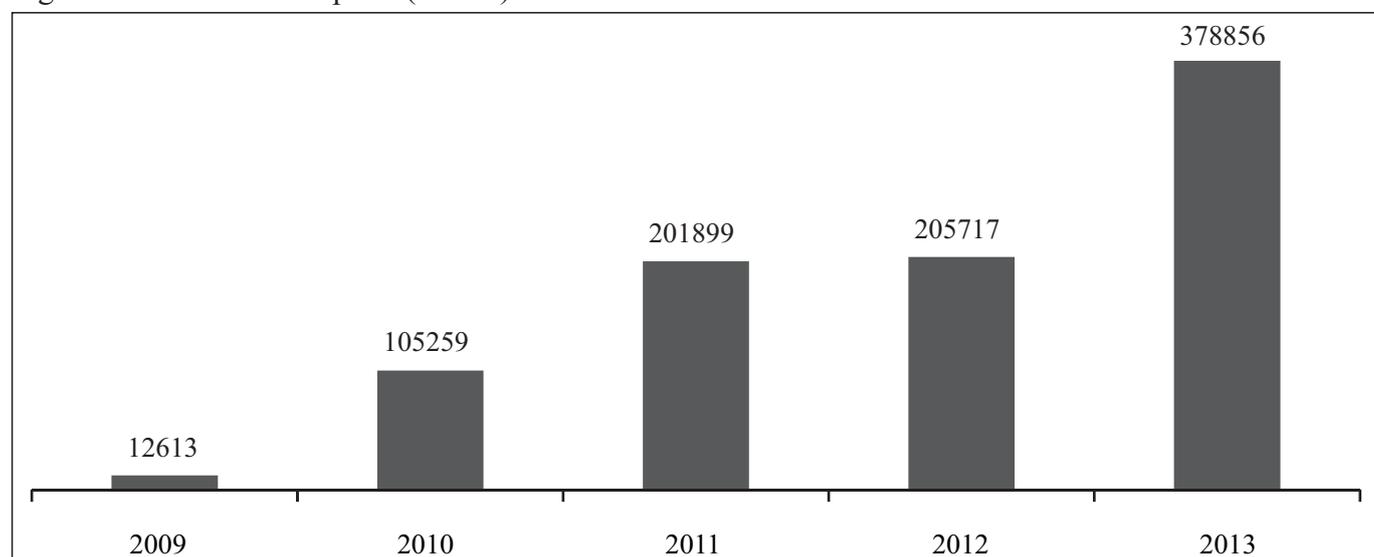
### Laying Foundations for Strong and Inclusive Growth

Cambodia enters the next phase of growth from a base of consistently strong GDP growth, which averaged 7.8 percent annually in the period 1994-

2011, registered 7.6 percent in 2013, and is forecast to remain at around 7 percent over the next five years. Total exports increased by 16.2 percent in 2013, the equivalent of USD6.99 billion, driven by strong performance in the economy's core sectors. Garment exports grew by 17.3 percent, footwear by 21.3 percent and tourism by 17.3 percent. Exports of milled rice increased by 54 percent reaching 379,000 tonnes, continuing a trend of strong growth in output since 2009 (Figure 1). Foreign direct investment (FDI) is estimated to reach USD1.22 billion in 2013, surpassing pre-global financial crisis levels though falling short of the all-time high of USD1.41 billion in 2012.

Despite high growth, inflation averaged 5.5 percent from 1994–2011. In 2014 it is expected to fall further, to between 3 and 4 percent, in spite of high regional inflation and a spike in oil and food prices. Other macroeconomic indicators also suggest a stable outlook: in 2013 the riel maintained stability against the dollar, bank deposits and loans grew, there was adequate liquidity in the market, and external debt as a proportion of GDP declined slightly from 26 percent in 2012 to 23 percent in 2013. Overall, the budget deficit as a proportion of GDP is estimated at 6.8 percent, and will fall to below 5.3 percent in 2014. The government aims to reduce the deficit further to the pre-global financial crisis level of 3 percent in the medium term. Encouragingly, there have also been strides in improving public revenue collection: in 2014

Figure 1: Milled Rice Exports (tonnes)



Source: Ministry of Economy and Finance

the government expects a year-on-year increase of 14.5 percent in tax payments.

Also on a positive note, using standard poverty indicators, there have been major gains in poverty reduction: between 2004 and 2013, the poverty incidence declined from 53 percent of the population to 20 percent and, if current trends continue, Cambodia is on track to meet its Millennium Development Goal to halve poverty between the years 2000 and 2015. Even so, in 2009 CDRI found that one in five Cambodians were subsisting on a daily consumption of less than USD1.25 and, even now, many Cambodians exist only just above the poverty line: financial shocks from natural disasters (floods, storms and droughts) or illness could quickly push them below the poverty line again.

Asset inequality, particularly land inequality and the related problem of tenure insecurity, is a major cause of poverty. Around 55 percent of all rural households are land-poor; they either have no land or are limited to cultivating subsistence crops because they have insufficient land to produce surplus. These households are stuck in a cycle of poverty, and unable to create a surplus to contribute to growth. The Prime Minister has pledged to build the capacity of land administration institutions to legally protect smallholders' property rights from expropriation and to spur investment, highlighting this as the policy priority of the Fifth Legislature. In addition, efforts will continue to increase regulation of economic land concessions (ELCs) and, where appropriate, redistribute land to the land-poor through social land concessions (SLCs).

Government must also include poor populations that do not own agricultural land in plans for growth. In rural areas this means promoting employment opportunities in cassava and rubber plantations, developing fisheries and providing training for off-farm jobs. Rapid urbanisation resultant of growth in industry and services is creating a class of urban workers. It is essential that policy addresses vulnerability in this population. The government must develop fair national wage policies that balance the need for competitive production costs with decent living standards for workers, and create a strong social safety-net system that protects vulnerable households from economic shocks.

## **Human Resource Development**

Education and training policy will play a key role in diversifying and increasing the competitiveness of the economy. Widening access to good quality education and training services is a core tenet of inclusive development.

Creating a global standard education system capable of pushing Cambodia through the next phase of development is a task that will require improvements at primary, secondary and tertiary levels. There are three core areas that policy will have to address: increasing access to secondary and tertiary education across the country, increasing the quality of education at all levels, and closing the gap between skills needed to drive the economy and skills that the education system provides.

While there have been great gains in access to primary education, access to secondary and tertiary education remains an issue that government must attend to. Overall enrolment at lower secondary level declined from 55 percent in 2011-12 to 53 percent in 2012-13, and in higher secondary level from 30.6 percent to 27 percent in the same period. In general, enrolment rates are lower in rural areas than in urban areas (Figure 2).

In response, the government is committed to improving enrolment figures by building more schools, particularly in rural and remote areas, increasing incentives for teachers to locate in peripheral areas and encouraging pupils to participate in secondary education.

There is a pronounced rural-urban divide in access to tertiary education. There are few higher education institutions (HEIs) or technical and vocational education and training (TVET) programmes located outside of urban centres; many rural households cannot afford the time and expenses associated with accessing education and training services, and/or are unaware of their benefits. This contributes to underemployment in rural areas and inefficiency in the national labour market, because excess agricultural workers do not gain the skills necessary to contribute to other sectors of the economy.

The quality of education provision is a problem at primary, secondary and tertiary levels, including TVET. A focus on enrolment statistics has often masked structural problems in Cambodia's education system. A core problem is that both primary and lower secondary schools have low completion rates, particularly in rural areas (Figure 2).

Low quality teaching and teaching facilities are features of Cambodia's education system at public primary and secondary institutions, especially in rural areas where resources are most scarce. There is a pronounced rural-urban divide with regard to teaching materials: rural pupils have less access to IT equipment, which limits their training in skills necessary for employment in a modern economy. In addition, teachers in rural schools earn low wages – approximately USD100 per month – and often have to work additional jobs or supplement their income through corrupt activities, including selling exam questions to pupils. The practice of purchasing exam questions is widespread; it has led to quality issues in education provision because hard work and academic excellence can be substituted with bribes, and has put poorer students – unable to afford informal costs – at a disadvantage because they do not have the financial resources necessary to achieve top grades.

The key to improving primary and secondary education in Cambodia is increasing public funding, prioritising rural areas. This includes funding for better facilities and equipment, providing better salaries for teachers, providing better training for teachers in core subjects like mathematics, and making sure that children are adequately nourished so they are able to maintain concentration during class. There must also be efforts to cultivate a culture

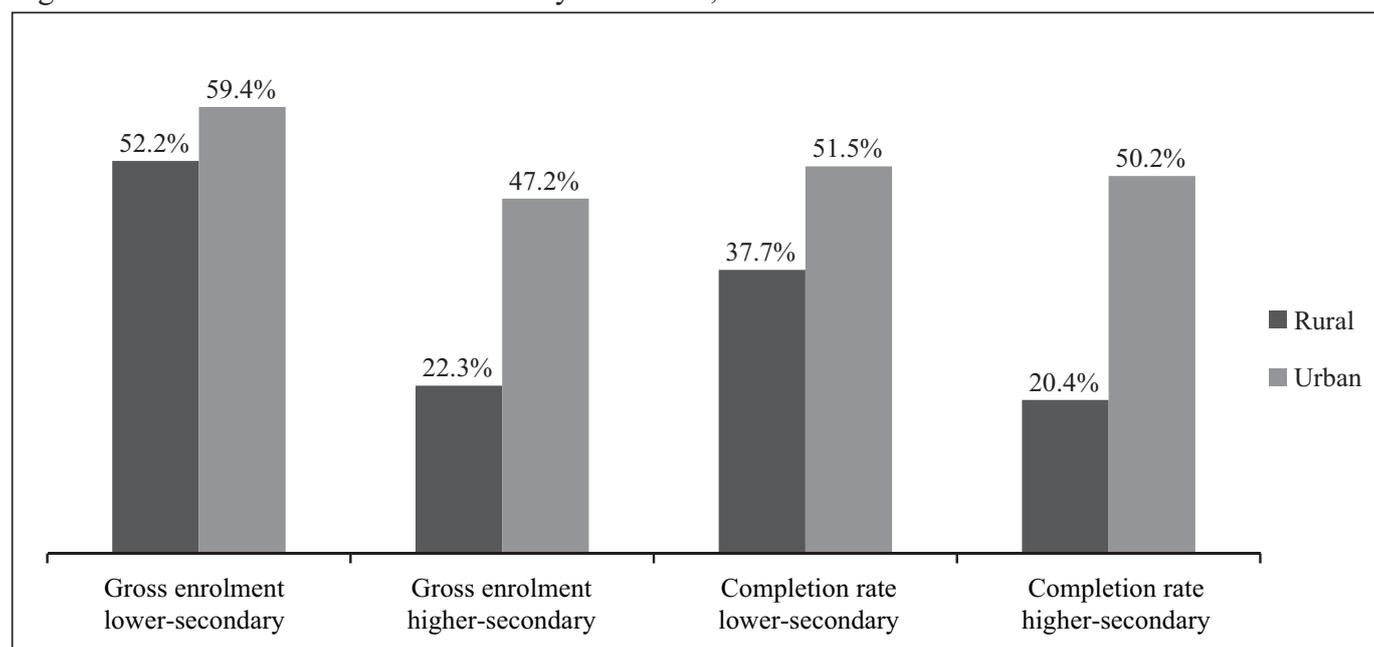
of education by engaging parents in their children's education and starting schooling at a young age by increasing the number of pre-schools, training pre-school teachers and improving pre-school enrolment rates.

HEIs in Cambodia also suffer from low quality teaching and facilities. An underlying issue is that higher education is private sector led and poorly regulated, often prioritising profit over quality. Without quality controls, effective monitoring and standardised certification, HEIs often provide poor training and worthless qualifications. Low quality teaching and poor regulation of HEIs also negatively affect TVET: poorly trained staff are recruited from HEIs to teach TVET courses, resulting in quality issues that impede progress in technical subjects that are necessary to drive Cambodia's economic future.

It is important to engage the private sector to fund state-of-the-art, global standard science facilities at key HEIs, which would benefit companies requiring highly skilled workers. Global-standard facilities would also attract high-calibre academics to Cambodian HEIs – crucial for creating a culture of research excellence and feeding into high-quality teaching.

For education and training to translate into a diversified and competitive economy, it is crucial that curricula provide the labour force with the

Figure 2: Rural-Urban Divide in Secondary Education, 2013



Note: gross enrolment refers to percentage of the school-aged population enrolled in schooling

Source: Ministry of Education, Youth and Sport

skills that employers require. At present, however, Cambodia's labour market does not have employees with the skills needed for current or predicted economic conditions.

A major issue is the oversupply of inappropriately-skilled graduate workers, and a corresponding shortage of semi-skilled workers. CDRI projected that in 2012 the labour market would demand around 16,000 graduates, but higher education institutions produced around 29,000; it is estimated the figures will be 22,000 versus 70,000 in 2014.

Policymakers must ensure that Cambodia's education system closes the gap between the expectations of young Cambodians entering the job market and the jobs that are available to them. This means refocusing from encouraging students to study for white collar jobs, of which there are relatively few, and reducing supply-side constraints to skill development that will boost the hospitality and tourism sectors, as well as the garments and manufacturing industries.

A core issue is to encourage more prospective students to enrol in TVET, rather than in white-collar graduate programmes. There is a stigma attached to TVET because of its association with manual labour; the image of TVET needs to change if it is to draw talented students away from white-collar courses.

The curricula of TVET schemes must represent the needs of employers if workers are to be appropriately skilled. In the manufacturing and service sectors a common complaint from employers is a lack of emphasis on soft-skill development, which limits needed improvements in workplace attitude, problem solving and creative thinking. Building effective mechanisms that ensure private sector needs are represented in TVET curricula is important to maintain dynamism as Cambodia diversifies into new industries and moves up the value chain.

### **Strengthening the Business Environment**

The realisation of the AEC will mean that Cambodian producers have a potential market of 600 million consumers. It is the task of policymakers to ensure that this potential turns into growth by fomenting an environment that encourages diversified exports that respond to market demand. Promoting new, high value-added industries will become increasingly important

as Cambodia graduates to lower-middle-income country status and its comparative advantage shifts from low-cost labour.

A driver of diversification and a major pillar of the market are small and medium-sized enterprises (SMEs), widely credited for China's economic transformation. The realisation of the AEC may result in stunted development of Cambodia's SME sector as a result of an influx of cheap imported manufactured products. Government must increase the productivity of SMEs, which are largely unregulated, by formalising business practices, including standardising financial statements and balance sheets, to enable proper audits. This will enable lending from banks, encourage investment, and provide a foundation to link with larger companies as part of regional production chains. Formalisation of financial practices will also make it easier for government to collect taxes from SMEs and so create fiscal space to fund much needed improvements in social service provision, and provide resources to see the economy through possible external shocks.

Current investment laws are geared towards attracting FDI: they must be amended to incentivise SMEs to join the formal economy. At the same time, fiscal policy should coordinate FDI to benefit SMEs by encouraging the development of secondary sector manufacturing industries, such as automobile assembly. It is important that regulation is complemented with support services that promote strategies for SMEs to enter production networks, expand into new markets, and enhance technical and managerial capital.

With the expansion of entrepreneurial activity and the formalisation of business practices there will be an increased demand for formal sector credit. There are strong signs of change in the macrofinancial environment already: the credit-GDP ratio has increased rapidly, from between 6 and 9 percent of GDP in the years 2000–2005 to just below 40 percent in 2013, according to IMF figures. Rapid growth in credit has taken place in a crowded, unregulated, dollarised market, which may lead to the increased risk of a macrofinancial shock.

It is important that mechanisms are in place to effectively monitor and regulate credit providers. Policymakers need to strike a careful balance: diminishing macrofinancial risks, but also providing

a fertile framework for the growth of credit and its extension across the economy, particularly to SMEs.

Increases in intra-ASEAN FDI are expected with AEC realisation; formal monitoring processes and increases in productivity will give confidence to foreign investors and contribute to increase FDI to SMEs. However, a potential increase in FDI presents new sources of risk: as demonstrated in the 2009 global economic crisis, when external conditions change, footloose foreign investors take flight. It is important that government enhances supervision so that FDI liabilities are known, and shocks can be managed.

Formalisation of investment practices should be complemented by formalisation of prevalent routes of trade; this is a particularly urgent issue given impending AEC realisation in 2015. Producers will only see benefits from the AEC if government is successful in widening and promoting a culture of using formal trade mechanisms across the economy.

A useful barometer of the challenges facing AEC implementation are the constraints on the ASEAN-5 Free Trade Agreement, as mechanisms promote trade through tariff-reducing frameworks. At present only 47 percent of Cambodian trade flows through the ASEAN-5 framework, despite the lower tariff regimes offered. Lower tariff rates are negated by the costs and complexity associated with complying with ASEAN-5 criteria; these barriers to accessing free trade frameworks are called non-tariff measures (NTMs).

The most significant NTM discouraging usage of the ASEAN-5 framework from a Cambodian producer's perspective is the requirement to obtain an export licence. NTMs are not only a problem in Cambodia, but also affect a wide range of products across ASEAN. For Cambodia and other countries in the region to benefit from the AEC single market, NTMs must be eliminated and access criteria to the AEC streamlined so that exporters are not discouraged from using the framework as a vehicle for trade. In addition, government must provide more help to the private sector (especially SMEs) so they can understand what the AEC will mean for them – how they can benefit and what the risks are. Many businesses are unsure of the implications of the AEC and have so far received only limited information from government. The

AEC can offer substantial benefits to Cambodia, but only if Cambodians understand and are able to use the system effectively.

### **Increasing Connectivity**

Increasing the capacity of hard and soft infrastructure connectivity will be crucial to enabling the government to reach ambitious export targets, diversify into new products and move up the value chain.

A striking example of barriers to export ambitions is found in the case of milled rice. The government aims to export 1 million tonnes a year by 2015 to become the world's third largest exporter. If Cambodia's mills could produce 1 million tonnes of milled rice per year, current infrastructure – ports, haulage capacity – would not be sufficient to move this volume. In addition, if current conditions persisted, Cambodian milled rice would be more expensive than regional alternatives because of transport costs that are 40 percent higher in Cambodia than in Vietnam, according to the World Bank. It is clear that to meet targets for rice exports, significant improvements in transport capacity are needed.

Better links between Cambodia and its neighbours will enable the economy to join regional "Just-in-time" (JIP) production (JIP) networks. JIP is a trait of the ASEAN economy that enables manufactured goods to be produced quickly and at minimum cost. A core feature of this production model is a high-level of connectivity and coordination in the supply chain: speed and predictability across all supply chain actors are crucial to the smooth functioning of the system.

Integration into JIP networks will create demand for a diverse range of products and industrial processes, and spur diversification of Cambodia's production base. In the medium term, the skills garnered through integration into JIP networks will encourage higher value industry to migrate to Cambodia as market conditions change across the region.

Facilitating the efficient movement of goods will mean that Cambodia can gain from increasing through-trade. The close proximity of ASEAN to the important East Asian economies of China, Japan, South Korea and Taiwan provides opportunities to generate capital from trade moving across the region: in the past five years, trade has increased

by 12 percent per year. Cambodia's strategically important position between the regional hubs of Ho Chi Minh City and Bangkok mean that it is well placed to benefit from increasing through-trade. These benefits include increasing revenue, competition and efficiency in logistics services, and increased demand for related support services such as accountancy and law.

If Cambodia is to become a key node in the AEC, policymakers must take a three-pronged approach to overcome capacity limitations in transport infrastructure. First, there must be continued efforts to upgrade hard infrastructure. The government and development partners have made strides in upgrading hard transport infrastructure, including roads, railways and ports. In particular, the development of the Southern Economic Corridor, supported by the Asian Development Bank (ADB) has provided the policy frameworks and funding to better link Cambodia to Vietnam and Thailand.

Second, hard infrastructure must be complemented with the development of modern, global standard logistics services. The World Bank's Logistics Performance Index (LPI) 2012 ranked Cambodia at 101 among 155 countries, compared with Vietnam (53) and Thailand (38). This low logistics capacity hurts producers from the top to the bottom of the market by adding costs to exports and creating uncertainty in service provision. A key issue is integration of logistics services at the local, national and regional levels. Currently logistics at the local level are informal, unpredictable in terms of time and cost, and not well linked to cross-border logistics networks. At the border, containers must be removed and placed on different vehicles, at an estimated extra cost of USD100 a container.

To improve logistical efficiency, government must put in place measures that integrate local-level transport systems, particularly in remote areas, into national logistics networks. Mechanisms should also be developed that improve information about international transit agreements to improve cross-border cooperation. Government must also promote competition in trucking, port and air freight to drive up service standards and give producers a choice of services.

Third, a lack of institutional capacity to implement customs procedures transparently and efficiently adds to transaction costs and

causes delays. The government has made efforts to streamline customs procedures as part of the Road Map to AEC 2015, but a lack of institutional capacity to implement policies at borders results in informal fees adding costs to Cambodian products. It is crucial, therefore, that government should find ways to discourage the levying of informal fees.

### **Cooperation and Institutional Capacity Building Key for the Future**

The thread that links economic diversification, increased competitiveness and inclusive development is institutional capacity. The key to Cambodia's growth and prosperity over the coming years is building institutional capacity to implement policies and laws predictably, efficiently, transparently and equitably at all levels.

The effective identification, development and implementation of policy require cooperation and coordination across ministries, policies and stakeholders. There must be engagement with the private sector so that mechanisms to facilitate trade and investment reflect their needs. This engagement must include business leaders from large companies, but also representatives of SMEs and rice producers, and research institutes. Mechanisms must be strengthened that promote interministry cooperation, and the effective harnessing of private sector resources through Public-Private Partnerships (PPPs).

Developing an effective bureaucracy will require working within existing frameworks, such as building the capacity of local authorities through decentralisation and deconcentration reforms, building the capacity of the judiciary through training schemes for officials, as well as the revision of civil service pay scales across the board to lessen the need for officials to charge informal fees. Building an effective bureaucracy will also require the development of new bespoke institutions that are built on the principles of transparency and good governance, such as cadastral commissions and arbitration councils, which reduce uncertainties for investors. It is crucial that access to these institutions is widened to include all sections of society, and that contracts are enforced and disputes resolved according to the letter of the law, and not according to the connections or power-base of the stakeholders.

# Agricultural Water Storage Options for Climate Change Adaptation in Cambodia

## Introduction

Now and in the future, agriculture and food security depend on managing water – a finite resource, but variable in time and space. (McCornick et al. 2013)

For an agrarian society like Cambodia, the topic of climate change is very compelling. Agricultural production is predominantly rainfed with a lower percentage of cultivable land that has access to water for irrigation, mainly for supplementary use in the wet season. Within the context of climate change, the impacts on agriculture are exemplified by the pressure on water resources particularly in terms of water flow, rainfall, flood and drought (MOE and UNDP 2011).

Many studies on regional and national scales have indicated that the hydrological regime of the Mekong River, upon which agriculture relies, is likely to

change in terms of flow (MRC 2010; TKK and SEA START RC 2009). Other impacts include changes in the seasonal volume, distribution and intensity of rainfall. Many agricultural areas in the country are vulnerable to drought, and high evaporation due to increased temperature is expected. Furthermore, the frequency and extent of flood and drought are predicted to increase (MOE 2010; Clausen 2009; Eastham et al. 2008; Fraiture et al. 2007).

Climate change impacts vary in different parts of the country, however. For example, while high volumes of rainfall are disastrous for wetter areas, they are beneficial to drier areas (Eastham et al. 2008). These climate predictions are endorsed by the current conditions, specifically in terms of extreme weather events, soil fertility and limited access to irrigation (MOE and UNDP 2011). It should be noted that climate change is not the sole reason for the changes that are being experienced in the agriculture sector: development activities such as hydropower dams are also having an impact.

Adaptation strategy in the water sector to cope with climate change has focused on water storage options that aim to promote both agricultural productivity and food security, specifically for the poor (McCartney and Smakhtin 2010). If water is

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Prepared by Sam Sreymom, research associate of the Natural Resource and Environment Programme, CDRI. Recommended full citation: Sam Sreymom (2014), "Agricultural Water Storage Options for Climate Change Adaptation in Cambodia", Cambodia Development Review, 18(1):8-13.



A community pond has been dug by local community members working collectively to cope with irregular rainfall at the end of the wet season, Pursat province, November 2013

stored in the wet season, agriculture in the dry season is feasible, water-scarce areas can access water through diverting it from the storage facility, and water shortage resulting from alterations in rainfall and flow is ameliorated (McCornick et al. 2013). The pros and cons of the water storage options and their sensitivity to climate change must therefore be considered (McCornick et al. 2013).

In Cambodia, besides irrigation structures that are a method of water storage for agricultural purposes, there are other viable options (Johnston et al. 2013). For instance, a study commissioned by Dan Church Aid/Christian Aid in 2013 examined the significance of the different agricultural water storage options to help reduce vulnerability to drought and prolonged dry spells throughout the four main agro-ecological zones. This article will review these existing agricultural water storage options, identify challenges and opportunities presented by each, and suggest approaches to enhance the options to help farmers to adapt to the challenges posed by the changing climate.

**Data Collection and Methods**

Two main agro-ecological zones of Cambodia – the Tonle Sap and Lower Mekong plains – were selected for the study. For the Tonle Sap zone,

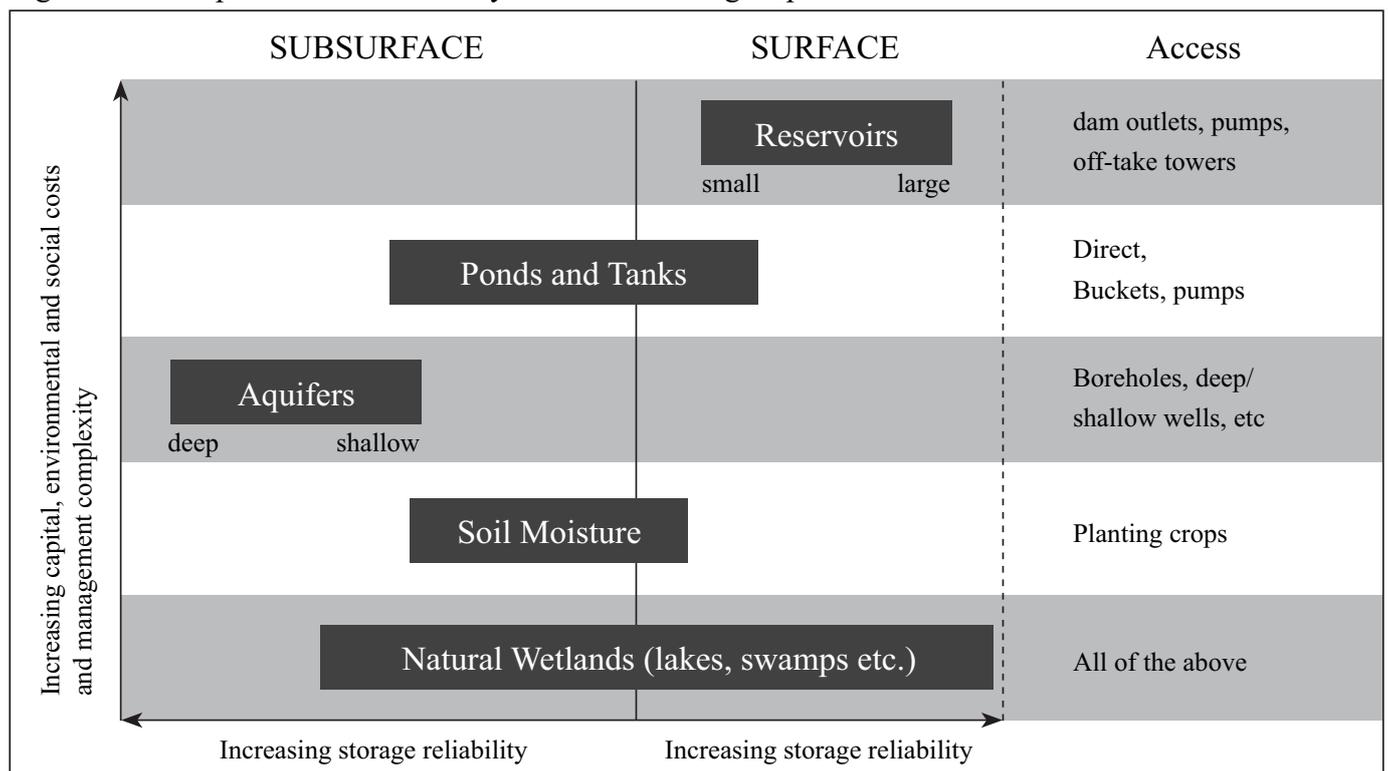
Pursat, Kampong Thom and Kampong Chhnang were the target provinces, while Takeo and Prey Veng provinces were chosen to represent the Lower Mekong zone. Representatives from the Provincial Department of Water Resources and Meteorology (PDOWRAM) and the Provincial Department of Agriculture (PDA) in each province were selected for key informant interviews (KIIs), and one commune<sup>1</sup> within each province was chosen as the location for focus group discussion (FGD). The participants of the FGDs included commune councillors, farmer water user community (FWUC)<sup>2</sup> members, village chiefs and villagers. This study is also based on existing information and data on policy, plans and local practices retrieved from both online sources and from documents.

This study employs the concept of the physical water storage option continuum published by the International Water Management Institute (IWMI) in 2010. The continuum centres on both surface and subsurface water resources (Figure 1).

<sup>1</sup> Those communes include Svay Daunkeo (Pursat), Ou Kanthor (Kampong Thom), Thlok Vien (Kampong Chhnang), Phnom Den (Takeo) and Ansaong (Prey Veng).

<sup>2</sup> FWUCs involved in the study included Plov Touk (Plovic) of Takeo, and Roluos of Kampong Thom.

Figure 1: Conceptualisation of the Physical Water Storage Options



Source: McCartney et al. 2010

### Existing Agricultural Water Storage Options

Based on the Commune Database of the National Committee for Sub-National Democratic Development (NCDD 2014), the total irrigated areas in the wet season were rather small throughout the two zones. And according to an inventory in 13 provinces conducted by the Cambodian Center for Study and Development in Agriculture (CEDAC) in 2009, only 6 percent of the total 2525 irrigation schemes were fully functional and a substantial 65 percent were dysfunctional.

Within the irrigated areas, irrigation water is used to compensate for water shortage resulting from the short dry spell within the wet season.<sup>3</sup> Although the majority of agricultural production is rainfed, production in the dry season is undertaken in some areas that have access to water, mainly from irrigation schemes.

Among the five provinces visited for this project, irrigation water comes mostly from canals/dams<sup>4</sup> with natural streams/ponds acting as a secondary source (Table 1). The communes visited in Kampong Thom, Takeo and Pursat obtain irrigation water through canals that divert water from local

<sup>3</sup> Lasting about two weeks in the wet season, usually between July and August.

<sup>4</sup> Canal systems are used to divert water from rivers and streams through diversion weirs.

rivers. These canals are operated by FWUCs in collaboration with PDOWRAM.

Drilled wells are most prevalent in the Lower Mekong zone, and the two provinces visited were both found to have drilled wells for agricultural purposes. The number of wells keeps increasing (Table 2). The water table is reported to be lower than before: according to discussions with the local people of Ansaong commune, wells are getting deeper. However, this has occurred in just a few places so far, and there is, as yet, no scientific evidence to support this claim.

Public-private partnerships in irrigation management and governance have been started with the arrival of private pumping activities in FWUCs. In Takeo province, where an FWUC collaborates with a private irrigation pump owner to help farmers to channel water from the canal, this has been very successful in sustaining not only the FWUC but also in boosting agricultural productivity.

Areas irrigated by rivers, streams and natural ponds were found in Thlork Vien commune of Kampong Chhnang. Local people grow rice and vegetables along streams and around ponds but they have to adapt to floodwater after heavy rainfall. The other source of water for irrigation in Cambodia is from dug ponds. The NCDD Commune Database (Table 1) shows that only Pursat has increased the

Table 1: Sources of Irrigation Water for the Wet Season (%), 2008–10

Province		Area of irrigated rice land*	Area irrigated from canals/dams**	Area irrigated from rivers, streams, natural ponds**	Area irrigated from drilled wells**	Area irrigated from dug ponds**	
Tonle Sap plain	KCH	2008	16.67	61.42	30.05	7.58	0.15
		2009	20.03	76.13	23.70	0.10	0.08
		2010	13.38	61.84	37.38	0.00	0.79
	KTH	2008	8.78	94.73	5.26	0.00	0.01
		2009	11.10	75.87	24.03	0.00	0.01
		2010	7.22	79.98	19.83	0.14	0.05
	PS	2008	14.47	71.77	27.96	0.00	0.27
		2009	15.58	76.62	14.69	0.00	8.69
		2010	14.67	81.5	10.20	0.05	8.24
Lower Mekong	PV	2008	12.55	61.12	21.02	17.18	0.67
		2009	14.08	62.43	20.11	16.54	0.92
		2010	14.58	62.91	18.72	17.66	0.71
	TK	2008	9.23	66.67	13.32	11.51	8.50
		2009	5.74	74.81	21.91	2.94	0.34
		2010	0.41	62.20	32.65	4.76	0.34

KCH=Kampong Chhnang, KTH= Kampong Thom, PS=Pursat, PV=Prey Veng, TK= Takeo

Note: \* percentage of total rice cultivation area; \*\* percentage of total irrigated area

Source: NCDD (2014)

Table 2: Agricultural Wells, 2008–2010

Province	2008	2009	2010
KCH	255	346	191
KTH	57	264	328
PS	43	81	42
PV	14467	15412	17395
TK	2052	2354	2523

KCH=Kampong Chhnang, KTH= Kampong Thom,  
PS=Pursat, PV=Prey Veng, TK= Takeo

Source: NCDD (2014)

amount of irrigation water taken from ponds: the field visit also verified this data. Local people of Svay Daunkeo commune have dug ponds in their fields to ensure a sufficient supply of water to compensate for the change in the rainfall pattern.

Soil water conservation methods have also been applied. These involve composting, mulching, crop rotation, cover crops, the System of Rice Intensification (SRI), multi-purpose farming (MPF), and earth bunds. Provincial Departments of Agriculture (PDAs) and many NGOs have been conducting activities to improve these techniques by working with the farmers directly.

### Challenges and Opportunities

Although each type of storage corresponds to IWMI suggestions, they are still exposed to many internal and/or external challenges. To start with internal challenges, the capacity of FWUCs in managing their part of the irrigation process has always been problematic in respect of adopting a more participatory approach. There is some support in terms of capacity building but this has been insufficient, especially since such assistance is available only during a project implementation period and there is neither follow-up nor ongoing assistance. Almost all of the FWUCs have been unable to collect sufficient irrigation service fees (ISFs) to cover the costs of operations and maintenance (O&M) and the government's financial support is limited. However, the Plovic FWUC in Takeo province is considered a success in terms of ISF collection for O&M. It should be noted that this area is on the border with Vietnam with access to markets and technology to boost productivity and, for that reason, farmers can afford ISFs.

Social capital<sup>5</sup> is also a crucial component in both the construction/establishment and operation of water storage options, but this is restricted due to low incentives in collective work, limited understanding about the benefits of collective action, and limited time and labour. Local practices specifically impede the adoption of the soil moisture retention option. There is no system of grazing. Some local people leave their animals free to graze during the dry season, making it is hard for others to benefit from cover cropping, an important water and soil conservation strategy.

Another internal challenge is the lack of local resources including funds and land available for communal use on a local scale such as for digging community ponds. Although local authorities at the commune level have their own funds in the form of the Commune Investment Fund (CIF), those are still inadequate since some types of water storage are costly. It also seems that local people depend significantly on external support, making a lot less effort to devise local alternative resource mobilisation strategies such as pooling their labour to construct water storage structures. Land that is suitable for community water storage, i.e. located near cultivated areas, might be hard to find. Yet it is virtually impossible for farmers to build individual water storage facilities given that they own only small areas of land and in diverse locations. The nature of the soil is also a challenge to the functioning of canals/dams and ponds through its high infiltration capacity, which hampers soil moisture retention and water storage.

External factors also pose challenges to storage options. To begin with, there are not many irrigation water supply structures, making it very difficult to implement the options suggested. From the local data in Table 1 and from CEDAC's assessment, it is clear that the number of fully functional structures in Cambodia to ensure sufficient water supply is limited. Meagre resources including financial, technical, legal and regulatory are another obstacle to diverse water storage options. Support is needed for two major elements: the construction of water storage structures, and then O&M. There are currently few functional structures specifically designed for irrigation schemes and ponds, while,

<sup>5</sup> Defined as "the features of social organizations, such as networks, norms and trust that facilitate coordination and cooperation for mutual benefit" (Putnam et al. 1993: 67).

in terms of O&M, performance has been poor.

It is the case that irrigation schemes receive considerable attention within national policies such as the Strategy on Agriculture and Water (SAW), although options such as ponds and soil water conservation are more of a focus for development partners and NGOs. Local authorities are responsible for natural lakes and ponds, but some pressures are infringing on these resources, for instance, land encroachment for agricultural purposes. With respect to legal and regulatory issues, specifically for groundwater, there are no regulations to support sustainability in extracting this renewable resource. There is neither a ban nor any encouragement for people to restrict the amount of water they draw.

Despite these challenges, Cambodia has many opportunities to take action. One is climate finance<sup>6</sup> and a total of USD655.6 million has been mobilised in Cambodia since 2003 through bilateral<sup>7</sup> and multilateral<sup>8</sup> financing. The fund is chiefly available as grants and, to a lesser extent, concessional loans, and around 41 percent has been spent on the agriculture, water and irrigation sectors. The agro-ecological zone that has requested a particularly substantial fund is the Tonle Sap, with Pursat as the largest receiver (Enrich Institute for Sustainable Development 2014). The fund is mobilised at national, subnational and local levels through various projects.

In addition to support funding, climate change adaptation measures and relevant policies have been formulated as can be seen in the Cambodia Climate Change Strategic Plan (CCCSP). Apart from this, local communities have also been granted a significant role that could reap dividends: on the one hand, social capital and collective action are challenges in realising water storage options; but on the other hand, they have an invaluable role in

ensuring the sustainability of the options as well as being vital local resources. Many reports have highlighted the roles of the local community in climate change adaptation, whether or not funds are available. It is also important to realise that although funds might be available and project interventions are in place, the sustainability and success of the project depends a lot on the determination and competence of the local community.

### **Applicable Approaches: Making Agricultural Water Storage an Effective Adaptation Strategy to Combat Climate Change**

It is wise to take into account both the challenges and opportunities for creating realistic approaches to water storage. An enabling environment covering physical, technical, financial, legal, regulatory and social aspects has to be created. It has, for instance, to be accepted that there is no “one size fits all” solution. In terms of physical aspects, soil suitability must be taken into account in decisions about feasible water storage. Both internal and external supports also play a crucial role and can increase the number of viable storage options.

Internal support comes from local institutions such as local authorities, communities and people. Communes can, collectively, use their CIFs to build small reservoirs and/or canals and dig communal ponds. Local communities such as FWUCs can also mobilise farmers to build structures according to their capacity while local people themselves can dig their own ponds or share part of their land for pond digging.

External support comes from government, NGOs and development partners, which tend to have access to much larger amounts of funding. Such finance can be substantial in supporting the construction of a whole irrigation system or on a smaller scale that stretches only to the building of small structures. The key issue to be noted is that support has to correspond to the real need of the locality.

In term of soil suitability, since each specific area has specific conditions such as soil slope and infiltration rates, each option has to match these, too. For example, as the Tonle Sap zone receives an annual flood, reservoirs might be the best option but the system has to be adapted to possible inundation when the flow of water is excessive.

The technical aspects of water storage options

<sup>6</sup> “Climate finance is the financing channeled by national, regional and international entities for climate change mitigation and adaptation projects and programs” (Enrich Institute for Sustainable Development 2014: 2).

<sup>7</sup> Such as Japan, France, the US, China, the EU and Australia (Enrich Institute for Sustainable Development 2014).

<sup>8</sup> Such as Asian Development Bank (ADB) World Bank, Global Environment Facility (GEF), International Fund for Agricultural Development (IFAD), United Nations Development Programme (UNDP) and the Food and Agriculture Organization (FAO) (Enrich Institute for Sustainable Development 2014).

relate to know-how, which is vital in enabling benefits to be reaped. The best approach is to combine indigenous with scientific knowledge, and it should be simple so that it can be easily grasped and used by local people: local community members are key in decisions about the management of all water storage options. The channels through which such knowledge is shared should comprise three modes: NGOs, local institutions and social networking. Many NGOs have been working on transferring knowledge about irrigation management and soil moisture conservation, and the possible channels for sharing are local institutions. Social networking, consisting of neighbours and family members, also plays a role in disseminating such knowledge.

Financial aspects make a major contribution to the sustainability of water storage infrastructure management and governance. Many failures in the management of irrigation schemes have been attributed to inadequacies in budget. It has been a big challenge to find sufficient resources since the country is developing and there are many calls on often limited resources. However, there are still ways. Local people often depend on external assistance either from the government or NGOs and development partners and this trend has hampered them in achieving self-sufficiency. Seeing this, NGOs have, for instance, started local savings groups aiming at accumulating funds that participants can use for agricultural spending. So, with the government focusing on medium- and larger-scale water storage options, local people, with assistance from NGOs and development partners, can afford to build smaller scale water storage options.

Securing access to water through smaller-scale water storage options can be enhanced given appropriate legal support. Since the current legal or regulatory support concentrates mainly on large-scale irrigation infrastructure, this needs to be widened to embrace other options to attract the interest of not only the government but also NGOs and development partners. Local people can also take advantage of social capital to secure access to water. They can work together to make things happen in their community, thereby reducing their dependence on external support. They can help reduce the cost of constructing and maintaining water structures by contributing their labour and sharing parts of their land. However, before this situation can be realised,

both NGOs and local authorities must play a role in motivating local people and marshalling activity in the locality.

These components are distinct, yet interrelated, and together they can build an effective enabling environment for agricultural water storage options in Cambodia.

### Conclusion

The review and identification of existing agricultural water storage options provides an up-to-date picture for understanding the current situation, challenges and opportunities in Cambodia in terms of water storage. Overall, the realisation of options is on track in respect of suggestions made by institutions at regional and global levels.

Cambodia already has diverse agricultural water storage options, but needs more practical support. However, with the current availability of climate change financing, the country has a chance to make substantial progress if it moves swiftly and wisely.

What is needed is the establishment of resilient local communities, with the capacity to understand the strengths and weaknesses of each water storage option and an appreciation of how vulnerable each is to the impact of climate change. Local communities should not simply rely on external support, but should mobilise their own resources. In the short term, external support has to be in place from organisations that will work cooperatively with local farmers and mainstream knowledge along the way to make sure those people are capable of sustaining their own livelihoods in the context of climate change.

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## Economy Watch—External Environment

This section describes economic indicators of major world economies and economies in south and east Asia.

The global economy gradually improved as growth in most developing and developed economies strengthened in the fourth quarter of 2013. The IMF argued in its World Economic Outlook 2014 that there will be broad recovery in global activity; however, growth will be uneven and will come mainly from advanced countries.

Real GDP growth in Indonesia dropped in the fourth quarter, to 5.7 percent from 6.1 percent a year earlier. Malaysia's growth also declined, to 5.1 percent from 6.4 percent a year earlier. Singapore's economy continued to perform relatively well, growing at 5.5 percent from 1.5 percent a year earlier. Year-on-year growth in Thailand decreased to 0.4 percent in the fourth quarter, compared to 19.5 percent a year earlier. The current political tensions have affected the business environment and confidence.

Growth in China and other Asian tigers—Hong Kong, South Korea and Taiwan—remained strong. However, Chinese growth has slowed since 2012 compared to that of earlier years, averaging 7.7 percent quarterly. The Politburo at its third plenum in 2013 unveiled a reform agenda to enhance sustainable growth. Two important reforms are urbanisation and gradual reform of *hukou*, an administrative system set up to control people's interprovincial movements. Chinese leaders also emphasised the need for to play a central role in resource allocation to improve efficiency. Real GDP growth in Hong Kong increased to 3.0 percent from 2.5 percent a year earlier and in South Korea to 4.0 percent from 1.6 percent.

Uncertainty and vulnerability continued to hinder recovery efforts in the eurozone. However, the economy grew 0.5 percent in the fourth quarter, while it contracted 0.9 percent a year earlier. Year-on-year growth in the US was relatively strong and promising at 2.5 percent. Job figures have been promising keeping the unemployment rate at 6.7 percent in March 2014, according to the US Bureau of Labor Statistics. The Federal Reserve is watching

the market closely to decide when to start its “tapering” policy to control inflation. Nonetheless, the IMF warns against any “premature withdrawal of monetary accommodation”. Growth in Japan was also encouraging as real GDP grew to 2.6 percent, compared to a mere 0.5 percent a year earlier. “Abenomics” might be showing some effects on the economy. However, there are other structural reforms that Japan needs to tackle—one of which is agricultural subsidies.

### World Inflation and Exchange Rates

Inflation rates in developed economies were below expected levels. Inflation in Cambodia increased to 4.3 percent from 1.8 percent a year earlier and in Indonesia to 8.4 percent from 4.4 percent. Japan escaped deflation in the last two quarters of the year but there is no guarantee this will continue. Inflation in the eurozone and the US remained low, indicating that Quantitative Easing II, which involves printing money to buy Treasury securities, has not had strong effects on overall prices and that tapering should not yet be started.

In the fourth quarter, the riel depreciated 0.6 percent from a year earlier against the dollar. The Thai baht depreciated 3.5 percent against the dollar and the Vietnamese dong 0.9 percent. The Chinese yuan appreciated 2.5 percent year on year against the dollar. The Japanese yen depreciated 23.7 percent from a year earlier against the dollar, giving an advantage to Japanese exporters.

### Commodity Prices in World Markets

In the quarter, prices of maize dropped 35.9 percent from a year earlier to USD199.3/tonne, of rubber by 19.1 percent to USD2380.0/tonne, of rice by 23.7 percent to USD455.7/tonne and of soybeans by 10.9 percent to USD514.9/tonne. The price of crude palm oil rose 10.9 percent from a year earlier to USD897.3/tonne. Prices of crude oil (OPEC spot) declined 0.8 percent year on year to USD106.4/barrel and of gasoline (US Gulf Coast) 10.5 percent to USD0.66/litre and of diesel 4.0 percent to USD0.77/litre. Overall, prices of major agriculture commodities were trending downward.

# Economy Watch—External Environment

Table 1: Real GDP Growth of Selected Trading Partners, 2008–13 (percentage increase over previous year)

	2008	2009	2010	2011	2012				2013			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Selected ASEAN countries												
Cambodia	6.8	0.1	-	-	-	-	-	-	-	-	-	-
Indonesia	6.1	4.2	6.2	6.5	6.3	6.4	6.2	6.1	6.0	5.8	5.6	5.7
Malaysia	4.6	-2.4	9.0	4.9	4.7	5.4	5.2	6.4	4.1	4.3	5.0	5.1
Singapore	1.1	-4.5	14.7	4.7	1.6	1.9	0.3	1.5	0.2	3.7	5.8	5.5
Thailand	2.6	3.3	7.9	0.0	0.0	4.2	3.3	19.5	5.4	2.6	2.6	0.4
Vietnam	6.2	4.7	6.7	6.1	4.8	-	-	-	-	-	-	-
Selected other Asian countries												
China	9.0	8.2	10.4	9.3	8.1	7.6	7.4	7.9	7.7	7.5	7.8	7.7
Hong Kong	2.4	-3.2	6.9	4.9	4.2	3.6	1.3	2.5	2.8	3.3	2.9	3.0
South Korea	2.2	-1.0	6.1	3.6	3.0	2.4	1.5	1.6	1.5	2.3	3.3	4.0
Taiwan	0.1	-3.6	11.1	4.2	0.4	-0.2	1.0	3.7	1.7	2.3	1.7	2.9
Selected industrial countries												
Euro-12	0.9	-3.8	1.6	1.6	0.0	-0.4	-0.6	-0.9	1.1	-0.7	-0.4	0.5
Japan	-0.7	-5.4	4.1	-0.8	2.8	3.5	0.1	0.5	0.4	0.9	2.7	2.6
United States	1.1	-2.5	2.7	1.8	2.1	2.2	2.5	1.6	1.8	1.4	1.6	2.5

Sources: International Monetary Fund, Economist and countries' statistic offices

Table 2: Inflation Rate of Selected Trading Partners, 2008–13 (percentage price increase over previous year—period averages)

	2008	2009	2010	2011	2012				2013			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Selected ASEAN countries												
Cambodia	19.7	-0.5	4.1	5.5	5.5	2.9	1.6	1.8	1.5	2.2	3.8	4.3
Indonesia	10.1	4.7	5.1	5.4	3.8	4.5	4.4	5.3	5.7	8.6	8.4	
Malaysia	5.3	0.4	1.7	3.2	2.3	1.7	1.4	1.3	1.4	1.8	2.2	3.0
Singapore	6.5	0.5	2.9	5.2	4.9	5.2	4.2	4.0	3.6	1.6	1.8	2.0
Thailand	5.5	-0.9	3.1	3.8	3.4	2.6	2.9	3.2	3.1	2.3	1.7	1.7
Vietnam	23.3	7.3	9.0	18.6	16.0	8.6	5.6	7.0	6.9	6.6	7.0	5.9
Selected other Asian countries												
China	5.9	-0.8	3.2	5.4	3.8	2.9	1.9	2.1	2.4	2.4	2.8	2.9
Hong Kong	4.3	-0.3	2.4	5.3	5.2	4.2	3.1	3.8	2.2	4.0	5.3	4.3
South Korea	4.6	2.8	3.0	4.4	2.9	2.4	1.6	1.7	1.4	1.1	1.2	0.9
Taiwan	3.2	-1.1	1.0	1.4	1.3	1.6	3.0	1.9	1.8	0.8	0.0	0.5
Selected industrial countries												
Euro-12	3.3	0.4	1.6	2.7	2.7	2.5	2.5	2.3	1.8	1.5	1.3	0.6
Japan	1.4	-1.3	-0.7	0.1	0.3	0.2	-0.4	-0.2	-0.3	-0.3	0.9	1.4
United States	3.8	-0.4	1.7	3.2	2.8	1.9	1.7	1.9	1.7	1.4	1.6	1.2

Sources: International Monetary Fund, Economist and National Institute of Statistics

Table 3: Exchange Rates against US Dollar of Selected Trading Partners, 2008–13 (period averages)

	2008	2009	2010	2011	2012				2013			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Selected ASEAN countries												
Cambodia (riel)	4054.2	4140.5	4187.1	4063.6	4046.0	4054.3	4060.2	3995.9	3995	4032.9	4062.0	4018.9
Indonesia (rupiah)	9699.0	10413.8	9089.9	4374.0	9066.0	9281.3	9490.3	9614.6	9681.9	9783.6	10666.0	11545.1
Malaysia (ringgit)	3.3	3.5	3.2	1.5	3.1	3.1	3.1	3.1	3.1	3.0	3.2	3.2
Singapore (S\$)	1.4	1.5	1.4	1.3	1.3	1.3	1.6	1.2	1.2	1.2	1.3	1.3
Thailand (baht)	33.4	34.3	31.7	30.5	31.0	31.3	31.3	30.7	29.8	29.9	31.4	31.7
Vietnam (dong)	16382.0	17725.2	19200.8	10241.9	20891.3	20849.7	20847.5	20839.3	20829.6	20828.0	20908.7	21036.0
Selected other Asian countries												
China (yuan)	6.9	6.8	6.76	3.3	6.3	6.3	6.4	6.2	6.2	6.2	6.1	6.1
Hong Kong (HK\$)	7.8	7.8	7.77	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
South Korea (won)	1137.2	1277.8	1156.3	1108.6	1131.2	1152.6	1132.9	1089.9	1085.9	1123.4	1108.8	1062.0
Taiwan (NT\$)	31.5	33.0	31.3	29.4	29.7	29.6	29.8	29.2	29.5	29.9	29.9	29.6
Selected industrial countries												
Euro-12 (euro)	0.8	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7
Japan (yen)	102.5	93.6	87.8	79.9	79.3	80.1	78.6	81.3	92.3	98.8	98.9	100.5

Sources: International Monetary Fund, Economist and National Bank of Cambodia

Table 4: Selected Commodity Prices on World Market, 2008–13 (period averages)

	2008	2009	2010	2011	2012				2013			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Maize (USNo.2)—USA (USD/tonne)	218.2	167.3	167.3	291.4	277.5	270.5	327.1	310.9	305.2	291.4	246.2	199.3
Palm oil—north-west Europe (USD/tonne)	912.2	686.8	834.7	1125.4	1106.7	1083.3	993.0	809.3	852.7	850.3	827.3	897.3
Rubber SMR 5 (USD/tonne)	2586.3	1884.8	3152.2	4630.6	3701.2	3361.0	2799.2	2941.5	3029.5	2497.2	2394.6	2380.0
Rice (Thai 100% B)—Bangkok (USD/tonne)	615.3	524.5	456.2	558.5	571.7	600.3	595.7	597.0	607.0	570.0	502.3	455.7
Soybeans (US No.1)—USA (USD/tonne)	460.4	414.0	375.4	507.9	490.8	546.5	649.4	577.8	558.4	569.8	545.1	514.9
Crude oil—OPEC spot (USD/barrel)	95.4	60.5	71.6	106.2	117.4	106.7	106.6	107.3	109.5	100.9	106.9	106.4
Gasoline—US Gulf Coast (cents/litre)	62.2	42.9	49.8	71.9	73.4	74.0	71.6	73.4	74.8	71.2	73.3	65.7
Diesel(low sulphur No.2)—US Gulf Coast (cents/litre)	76.20	43.05	51.6	75.7	83.8	77.8	81.1	80.3	81.5	75.6	79.6	77.0

Sources: Food and Agriculture Organisation and US Energy Information Administration

## Economy Watch—Domestic Performance

### Main Economic Activities

Fixed asset investments in the fourth quarter rose to USD1.8 bn, a 52.2 percent increase from a year earlier. Investments in agriculture went up to USD738.3 m and in industry to USD1.0 bn. The increase came amid political tensions over the July national election and the ongoing demand for a USD160/month minimum wage by garment workers. In addition, there are structural issues—some important of which are the tax regime and collection and customs procedures.

A majority of the investments in agriculture were in rice milling and rubber plantations. Commercial rubber plantations usually take the form of economic land concessions—a controversial area of economic development. To achieve socially optimal results, the government needs to be attentive to all kinds of irregularities that arise in the implementation of concessions. Investments in services dropped significantly to USD8.3 m.

The value of construction rose to USD372.9 m from USD179.6 m in the previous year, indicating a recovery from the global financial crisis in 2007. Investments were made in villas and houses and flats. No investments were made in hotels and tourism, but Cambodia continued to attract more tourists to its historic sites. Ecotourism has also been common. Foreign visitor arrivals went up 14.5 percent year on year, arrivals by air rising 15.9 percent and by land and water 13.1 percent.

Exports continued strong, increasing 24.8 percent year on year to USD1.8 bn. Exports of garments and textile products, which accounted for 73.4 percent of total export value, rose 16.8 percent from a year earlier to USD1.3 bn. Of total export values, 65.3 percent went to the US and EU; the gradual economic recovery in both markets is important for Cambodia. Exports of agricultural commodities also experienced strong growth in the fourth quarter, increasing by 59 percent year on year. Exports of rice and rubber rose 65 and 17 percent, respectively, but fish exports dropped 45 percent. Agriculture accounted for only 9.5 percent of export values.

Imports went up 9.9 percent from a year earlier to USD2.3 bn; imports of gasoline rose 2.1 percent and of construction materials 31 percent. Diesel imports dropped 4.9 percent year on year to USD132.2 m.

### Public Finance

Total revenue declined in the third quarter by 1.7 percent year on year to KHR1869 bn. The drop was attributable to the decrease in capital revenue of 89 percent. Current revenue rose 3.4 percent to KHR1858 bn, of which tax revenue accounted for 86 percent. Revenue from taxes went up 5.5 percent to KHR1646 bn while non-tax revenue declined 10 percent from a year earlier.

In the same quarter, total government expenditure decreased 24.5 percent from a year earlier to KHR2230 bn, of which current expenditure went down 0.9 percent and capital expenditure 32.8 percent. Expenditure on wages increased 25.5 percent to KHR825.3 bn, while subsidies and social assistance declined 38.3 percent.

The government has shown commitment in the new administration to continue strengthening revenue collection and curbing wasteful spending. Nonetheless, implementation will be challenging.

### Inflation and Foreign Exchange Rates

Inflation trended upward in 2013, increasing to 4.3 percent in the fourth quarter from 1.8 percent a year earlier. The prices of food and non-alcoholic beverages increased 5.8 percent. This could have an important impact on the livelihoods of the poor and the near poor if the government and employers do not factor it into wages. In the same quarter, the price of transportation dropped 0.4 percent. The government should also be attentive to the money supply, which could induce higher overall prices.

The riel depreciated 1.6 percent from a year earlier against the dollar while appreciating 0.5 percent against the Thai baht. The price of gold declined 16.8 percent from a year earlier to USD171.8/chi, of diesel 3.9 percent to KHR4927/litre and of gasoline 3.2 percent to KHR5127/litre.

### Monetary Developments

Total liquidity in the fourth quarter of 2013 increased 14.6 percent year on year to KHR32,768 bn. Net foreign assets went up 17.1 percent, net domestic assets 10.3 percent and credit to the private sector 17.3 percent. This indicates strong credit availability. The money supply also increased: money (M1) by 20.6 percent and quasi-money by 13.6 percent. Although increased money supply might lower interest rates, its growth could also increase inflation in the long run. There seems to be no upward pressure on international prices of major agricultural and non-agricultural commodities, but the government needs to be careful in controlling monetary-induced inflation.

### Poverty Situation

In February, the real daily income of porters, motor-taxi drivers and garment workers dropped noticeably compared with the same month last year.

Wages declined for six of the 10 selected groups compared with November 2013. Skilled construction workers experienced the largest fall, 8.9 percent, to KHR15163/day. The main reason was that the number of workers in this area increased, while there was not so much work, according to 88 percent of respondents. Ninety percent of the interviewees were from the provinces, while 35 percent were from Prey Veng province. The workers were breadwinners, but their incomes could only partly support their families. They carefully controlled their daily expenditure, which was largely for food, taking 49 percent of their total income. Seventy-eight percent stayed at their work site to avoid paying for lodging.

Garment workers complained of not having much overtime, due to fewer orders to their factories, decreasing their earnings by 8.6 percent. They could send some support to their families; their various expenditures in the city included food (65 percent of the total), house rental (17 percent) and many social events (13 percent). They could not save for the future, despite working in the factories as long as they could, said 70 percent of

interviewees. None of the 120 interviewees had finished primary education. Forty-one percent had no skills before being employed and received on-the-job training. Forty-seven percent said their work mostly involved seaming, hemming and trimming, which could not improve their skills. Low education and lack of other skills limited their dream of finding better paid jobs.

Porters' real incomes declined by 8.4 percent to KHR12,141/day. There was not much work available to them. However, they did not intend to go back to the provinces. Eighty-eight percent moved to Phnom Penh alone in the hope of making money for their families, but 85 percent of interviewees could not fully feed them from their daily income. They saved only an average 14 percent for their family after their daily expenditures.

Real earnings of vegetable vendors decreased 1.2 percent, to KHR12,294/day. Seventy-two percent of the interviewees were from Prey Veng, Kandal and Svay Rieng. They rented housing in Phnom Penh. Eighty-three percent of respondents revealed that they could not save to expand their very small businesses, and their trading was almost stopped due to not having enough to invest after covering occasional losses and food.

On the positive side, the incomes of motor taxi-drivers rose 0.3 percent to KHR13,227/day. Although the number of drivers increased, the number of customers mostly depended on how skilled they were, according to 85 percent. The interviewees had experience from seven months to more than 10 years as motor taxi-drivers. This occupation was an additional job after farm work for 55 percent of respondents.

Ricefield workers' earnings surged by 40 percent from November, to KHR8932/day. Eighty-three percent reported that the increase was caused by fewer farm workers. Still, 73 percent could not support their families, consisting of an average five members and in which they were the main income earner. Fifty percent of interviewees asked for help from their relatives to support their family or borrowed.

# Economy Watch—Indicators

Table 1. Private Investment Projects Approved, 2008–13\*

	2008	2009	2010	2011	2012				2013			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Fixed Assets (USD m)											
Agriculture	92.0	615.0	530.68	725	154.73	81.2	181.1	114.6	2.3	57.8	133.1	738.3
Industry	724.9	818.5	403.66	2860.1	211	173.7	245.6	196.5	195.4	1928.3	119.5	1014.1
<i>. Garments</i>	142.8	90.1	122.81	393.9	139.4	97.5	107.2	152.9	109.5	76.4	65.15	73.1
Services	10,003.2	4432.0	1337.34	3425.4	50.9	18.0	2.1	845.6	21.2	106.0	5.3	8.3
<i>. Hotels and tourism</i>	8758.1	3980.1	1105.14	2850.9	50.9	0.0	0.0	640.6	0.0	106.0	0.0	0.0
Total	10,570.9	5865.5	2271.7	7010.42	416.59	273.0	428.8	1156.6	218.9	2091.1	257.9	1760.7
Total	-	-	-	-	Percentage change from previous quarter				-81.1	855.5	-87.7	582.8
					Percentage change from previous year							
Total	308.6	-44.5	-61.3	209	48.4	-89.6	-84.4	-13.6	-47.5	666.0	-39.9	52.2

\* Including expansion project approvals. Source: Cambodian Investment Board

Table 2. Value of Construction Project Approvals in Phnom Penh, 2008–13

	2008	2009	2010	2011	2012				2013			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	USD m											
Villas and houses	154.7	64.3	36.2	185.5	64.8	66.6	18.3	25.4	145.2	10.3	51.6	110.2
Flats	221.6	149.6	183.8	219.6	60.8	219.3	61.6	30.5	114.1	33.0	62.7	131.9
Other	740.9	227.3	269.7	199.9	197.2	47.8	94.9	123.7	154.4	238.3	336.0	130.8
Total	1117.0	441.2	489.8	605.0	322.8	333.6	174.9	179.6	443.7	281.6	450.3	372.9
Total	-	-	-	-	Percentage change from previous quarter				590.9	-36.5	59.9	-17.2
					Percentage change from previous year							
Total	75.7	-60.5	11	23.5	145.5	331.1	-29.3	20.8	28.1	-15.6	157.5	107.6

Source: Department of Cadastre and Geography of Phnom Penh municipality

Table 3. Foreign Visitor Arrivals, 2008–13

	2008	2009	2010	2011	2012				2013			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Thousands											
By air	1239.4	1111.7	1304.3	1480.4	513.7	317.1	370.5	500.7	611.2	398.1	428.0	580.4
By land and water	881.9	999.7	1094.6	1401.4	481.4	424.3	450.3	506.1	560.9	522.5	536.6	572.5
Total	2121.3	2111.5	2398.9	2881.8	995.2	761.4	820.9	1006.8	1172.1	920.5	964.6	1153.0
Total	-	-	-	-	Percentage change from previous quarter				16.4	-21.5	4.8	19.5
					Percentage change from previous year							
Total	5.3	0.5	13.6	20.1	27.8	25.5	17.3	26.3	17.8	20.9	17.5	14.5

Source: Ministry of Tourism

Table 4. Exports and Imports, 2008–13\*

	2008	2009	2010	2011	2012				2013			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	USD m											
Total exports	3097.8	2901.6	3630.2	4929.5	1280.1	1775.9	1595.8	1454.7	1576.9	1620.1	1969.9	1815.4
Of which: Garments	2986.2	2565.3	3223.4	4259.6	1070.78	1474.7	1329.1	1140.83	1225.2	1258.95	1568.5	1333.4
<i>. To US</i>	1908.3	1512.6	1853.9	2055.3	493.31	627.3	566.6	456.07	526.8	474.62	597.86	475.98
<i>. To EU</i>	689.0	644.7	809.5	1322.2	328.4	504.1	462.7	421.82	397.5	477.47	572.76	521.89
<i>. To ASEAN</i>	10.76	6.9	9.9	17.63	6.43	11.7	11.4	9.76	13.0	12.66	17.36	17.19
<i>. To Japan</i>	25.2	44.5	86.5	146.97	50.11	48.9	47.1	42.47	57.6	51.39	98.13	71.55
<i>. To rest of the world</i>	352.9	356.5	463.6	717.5	192.53	282.7	241.3	210.71	230.3	242.81	282.39	247.36
Agriculture	44.5	73.1	164.9	362.05	80.52	101.3	86.1	108.77	123.8	128.9	362.4	173.0
<i>. Rubber</i>	35.8	51.6	89.1	197.63	40.27	46.4	46.1	43.84	36.6	38.67	282.39	51.12
<i>. Wood</i>	3.4	3.5	34.1	48.79	8.9	12.4	4.1	11.6	14.5	8.88	16.86	33.3
<i>. Fish</i>	2.3	3.9	2.8	3.12	0.5	0.7	0.4	0.4	0.3	0.5	0.18	0.22
<i>. Rice</i>	2.6	10.9	34.7	106.56	27.1	37.5	31.7	50.2	65.8	56.47	57.29	82.67
<i>. Other agriculture</i>	0.5	3.0	4.1	5.95	3.9	4.4	3.9	2.8	6.6	24.41	5.7	5.69
Others	67.1	263.22	242.0	307.86	128.8	199.9	180.6	205.1	274.9	232.24	272.59	308.5
Total imports	4272.5	4331.5	5190.6	6375.9	1609.2	1885.4	2015.2	1938.2	2192.1	2211.4	2059.7	2130.1
Of which:												
<i>. Gasoline</i>	84.8	91.13	108.6	294.4	70.7	76.7	78.0	78.8	1225.2	77.19	71.3	80.5
<i>. Diesel</i>	19.5	180.67	203.8	447	139.4	126.6	138.3	139.9	526.8	137.44	150.9	132.2
<i>. Construction materials</i>	56.3	49.74	57.6	48.09	13.5	14.1	16.5	16.6	397.5	17.75	18.0	17.2
<i>. Other</i>	4011.8	4010	4820.6	5586.4	1385.7	1668.0	1782.4	1703.0	13.0	1979	1819.4	1899.6
Trade balance	-1174.7	-1429.9	-1560.5	-1446.4	-326.12	109.5	-419.4	-483.5	-615.2	-591.24	-89.8	-314.7
Total garment exports	-	-	-	-	Percentage change from previous quarter				7.4	2.8	24.6	-15.0
Total exports	-	-	-	-	Percentage change from previous year				8.4	2.7	21.6	-7.8

Total imports	-	-	-	-	-6.0	17.2	6.9	-3.8	13.1	0.9	-6.9	3.4
	Percentage change from previous year											
Total garment exports	1.6	-14.1	25.7	32.1	21.6	53.0	3.4	1.0	14.4	-14.6	18.0	16.9
Total exports	1.6	-6.3	25.1	35.8	25.8	56.9	9.6	9.9	23.2	-8.8	23.4	24.8
Total imports	1.3	1.4	19.8	22.8	10.6	11.6	32.7	13.2	36.2	17.8	2.6	9.9

\* Import data include tax-exempt imports. Sources: Department of Trade Preference Systems, MOC and Customs and Excise Department, MEF (website)

Table 5: National Budget Operations on Cash Basis, 2007–13 (billion riels)

	2007	2008	2009	2010	2011	2012				2013		
						Q1	Q2	Q3	Q4	Q1	Q2	Q3
Total revenue	1146.1	5290.0	5988.99	2805.83	6251.4	1728.9	2045.1	1900.8	2017.0	1820.2	2204.8	1868.9
Current revenue	1141.6	5210.7	5859.08	2786.12	6179.3	1725.8	1928.6	1796.4	1993.1	1814.3	2193.3	1858.1
Tax revenue	965.2	4409.9	4692.96	2457.02	5277.5	1403.8	1721.8	1560.7	1648.5	1575.3	2024.1	1646.0
Domestic tax	661.8	3248.4	3533.57	1727.10	4071.6	1092.3	1403.4	1230.0	1277.2	1253.1	1653.0	1300.6
Taxes on international trade	303.5	1161.5	1159.39	639.00	1205.9	311.3	318.4	330.7	371.4	322.3	371.1	345.4
Non-tax revenue	176.4	800.8	1166.13	507.13	901.8	331.0	206.9	235.7	344.6	239.0	169.2	212.2
Property income	13.6	78.0	291.13	4.87	63.8	91.3	13.1	22.5	16.2	8.2	18.1	24.3
Sale of goods and services	124.3	424.7	460.07	268.08	588.7	166.9	171.4	132.8	196.3	152.8	137.0	178.8
Other non-tax revenue	38.5	298.2	408.91	391.70	249.3	63.8	22.4	80.5	132.1	78.0	14.0	9.0
Capital revenue	4.5	79.3	129.92	2019.39	72.1	3.1	116.4	104.4	23.9	5.9	11.5	10.7
Total expenditure	1689.7	6297.8	8784.65	4259.67	9032.4	1532.5	2425.6	2951.3	2751.5	925.9	1925.7	2229.7
Capital expenditure	807.4	2574.4	2853.23	1495.19	3546.9	699.9	716.2	1194.5	1017.7	146.3	239.8	802.8
Current expenditure	882.3	3809.0	4773.07	2848.81	5341.2	988.4	1709.4	1756.7	1733.9	879.6	1685.8	1740.9
Wages	362.6	1397.0	2048.81	1208.81	2170.6	508.9	725.2	657.5	595.0	395.3	590.2	825.3
Subsidies and social assistance	194.2	927.1	1099.42	613.31	1518.8	189.6	514.6	462.1	420.5	247.4	642.5	285.3
Other current expenditure	325.5	1384.9	1624.84	1067.07	1651.8	289.9	469.7	637.1	718.4	236.9	453.2	630.3
Overall balance	-543.6	-1007.8	-2795.66	-1453.83	-1271.4	196.5	-380.6	-1050.5	-734.5	0.0	144.2	-360.9
Foreign financing	741.5	2055.10	1845.21	772.81	-2781.0	577.8	491.5	959.3	429.2	894.4	502.8	484.5
Domestic financing	-185.8	-127.00	938.64	567.96	2379.2	-565.7	148.4	22.1	62.4	-44.2	136.5	286.2

Source: MEF website

Table 6: Consumer Price Index, Exchange Rates and Gold Prices (period averages), 2008–13

	2008	2009	2010	2011	2012				2013			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
(October–December 2006:100)	Consumer price index (percentage change over previous year)											
Phnom Penh - All Items	19.7	-0.7	4.1	5.4	2.9	2.9	1.6	1.8	1.5	2.3	3.7	4.7
- Food & non-alcoholic bev.	33.1	-0.3	4.4	6.5	3.4	3.4	1.3	1.4	1.6	3.3	4.8	5.8
- Transportation	19.4	-10.7	7.0	6.9	7.8	3.0	1.1	1.2	-0.7	-1.0	-0.1	-0.4
	Exchange rates, gold and oil prices (Phnom Penh market rates)											
Riels per US dollar	4058.2	4140.5	4187.1	4063.6	4046	4054.3	4060.7	3995.9	3995	4033.1	4062	4059
Riels per Thai baht	123.5	121.1	133.13	133.2	130.2	129.0	129.3	131.3	134.7	135.74	131.35	130.69
Riels per 100 Vietnamese dong	24.8	23.4	21.725	19.7	19.3	19.4	19.5	19.2	19.3	19.34	19.26	19.35
Gold (US dollars per chi)	105.9	113.1	147.58	184.5	204.1	194.5	198.3	206.5	197.3	173.4	161.1	171.8
Diesel (riels/litre)	4555.2	3170.9	3859.3	4761.2	5193.9	4458.3	4983.9	5128.8	5134.39	4992	5022.5	4927
Gasoline (riels/litre)	4750.8	3593.1	4368.1	5044.5	5395.8	5308.3	5251.3	5295.4	5410.52	5274.5	5245.2	5126.7

Sources: NIS, NBC and CDRI

Table 7: Monetary Survey, 2008–13 (end of period)

	2008	2009	2010	2011	2012				2013			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Billion riels											
Net foreign assets	10,345.0	14,655.0	16,697.9	17,893.9	19,976.7	18,729.6	18,463.8	18,154.5	19,976.7	21,772.9	18,720.7	21,260.1
Net domestic assets	1513.3	1573.0	2778.9	5760.8	7931.8	7922.3	8400.3	10,437.4	10,504.1	9886.1	10,634.8	11,508.3
Net claims on government	-2987.0	-2252.0	-2126.6	-2123.1	-2991.6	-2399.9	-2440.6	-2486.4	-2991.6	-3012.6	-2804.4	-2794.9
Credit to private sector	9894.0	10,532.0	13,331.2	17,552.8	24,820.2	20,081.4	21,398.2	23,536.6	24,820.2	25,146	26,445.3	27,608.8
Total liquidity	11,858.0	16,228.0	19,476.8	23,654.7	30,480.8	26,651.9	26,864.1	28,591.9	30,480.8	31,659.1	29,355.5	32,768.4
Money	2399.0	3120.0	3220.9	3956.2	4500.6	3871.8	3818.2	4045.7	4500.6	4585.9	4720.8	4878.2
Quasi-money	9459.0	13,108.0	16,255.9	19,698.5	25,980.2	22,780.1	23,046.0	24,546.2	25,980.2	27,073.2	24,634.8	27,890.2
	Percentage change from previous year											
Total liquidity	4.8	36.9	20.0	17.8	22.4	21.1	18.6	20.9	22.6	18.8	9.3	14.6
Money	16.9	30.1	3.2	16.9	12.9	9.4	3.7	2.3	12.9	18.4	23.6	20.6
Quasi-money	2.2	38.6	24.0	17.9	24.4	23.4	21.5	44.6	24.4	18.8	6.9	13.6

Source: National Bank of Cambodia

Table 8: Real Average Daily Earnings of Vulnerable Workers (base November 2000)

	Daily earnings (riels)									Percentage change from previous year		
	2009	2010	2011	2012	2013				2014	2013		
					Feb	May	Aug	Nov		Feb	Aug	Nov
Cyclo drivers	8091	9055	9532	10,303	9592	10,681	10,636	10,842	10,832	-0.5	3.7	12.9
Porters	9549	9964	10,785	12,143	12,749	12,823	14,157	13,260	12,141	13.4	5.5	-4.8
Small vegetable sellers	8273	8266	8337	10,771	9953	11,571	11,490	12,449	12,294	11.0	18.1	23.5
Scavengers	5857	6698	8388	8680	9487	10,440	9620	9732	9593	5.3	4.3	1.1
Waitresses*	4646	5607	5986	6111	6529	6744	6791	6723	7449	22.0	4.4	14.1
Rice-field workers	6197	5691	5695	6151	5811	6427	7771	6388	8932	-8.4	27.8	53.7
Garment workers	7085	7746	8409	8932	10,004	9776	10,420	10,442	9548	8.6	16.4	-4.6
Motorcycle-taxi drivers	10,685	10,623	11,568	12,930	14,433	12,522	13,656	13,189	13,227	6.6	1.1	-8.4
Unskilled construction workers	8343	8790	10,307	11,078	12,554	13,728	13,023	13,431	15,162	21.8	18.1	20.8
Skilled construction workers	12,487	11,952	13,159	13,743	15,162	14,136	15,822	16,647	15,163	12.8	16.7	0.0

\* Waitresses' earnings do not include meals and accommodation provided by shop owners. Surveys on the incomes of waitresses, rice-field workers, garment workers, motorcycle taxi drivers and construction workers began in February 2000. Source: CDRI

### Continued from page 13 **Agricultural Water...**

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*Continued from page 24* **CDRI UPDATE**

CDRI's annual full Board of Directors meeting was held on 28 February with the participation of four new Board members – Dr Rethy Chhem, Director, Division of Human Health, International Atomic Energy Agency; Dr Suthad Setboonsarng, President of the NawachiOne Foundation of Thailand and a former Thai trade representative and senior ASEAN official; Ms Sandra D'Amico, Managing Director of HR Inc Cambodia and Vice-President of the Cambodian Federation of Employers and Business Associations; and Ms Eva Mysliwiec, Chair of the Board of Youth Star Cambodia and CDRI's founding director.

On 13–15 March CDRI's Executive Director attended an international conference in New Delhi, co-hosted by the Indian Council of Social Science Research and the IDRC, on the theme *Status and Role of Social Science Research in Asian Countries: Emerging Challenges and Policy Issues*. He delivered a dinner lecture on *Modern Cambodia: Its Development and Its Regional Context – Challenges and Choices*, and made a conference presentation on *Building Policy-Relevant Social Science Research in a 'Post-Conflict, Aid-Dependent, Least Developed Country': The Experience of CDRI and Cambodia*.

**RESEARCH****Democratic Governance and Public Sector Reform (DGPSR)**

There are 12 ongoing research projects in the DGPSR programme, six of which are at the final stage. The first one is *D&D Reform and Youth Political Participation*, and the second is *Linking Local Governance and Small, Medium Enterprise (SME) Development*. The latter looks at the role of sub-national government in promoting SMEs. The draft report of the third project – *Political Settlement and Inclusive Growth in Cambodia* – has been sent to peer reviewers for comments. The fourth project entitled *Political Settlement and Health in Cambodia* serves as a case study of the third project, and fieldwork and writing are underway. The fifth project on the *Cambodian State: How is It Developmental?* uses the developmental state model to assess the impacts of governance reforms on the state's institutional ability to promote development. This, too, has reached the writing stage. The sixth project, a paper on *The Politics of Decentralisation*

*in Cambodia*, drawn from one of our researcher's PhD dissertation, has been completed and sent to an international journal for peer review. In addition to these research projects, two papers were presented at the Southeast Asia Symposium at Oxford University, March 2014. They were *Cambodian Researchers: Their Status, Challenges and Contributions to Cambodian Scholarship*, and *Doing Research in Your Own Culture: Some Methodological Hurdles*.

Three new projects were initiated in early 2014 and are ongoing. First, *Social Accountability Practices in Cambodia*, aims to give a full picture of the literature on local governance and to offer new understanding on donor interventions in local governance reform and service delivery. The second, *Rights-Based Approach in Action: Determinants and Prospects in Cambodia*, is in its early stage. For the third, *Governance and Service Delivery: A Case Study of the Education Sector*, preliminary fieldwork has been conducted and the team will now start working on its conceptualisation.

A conference article on *How New Information Flows Challenge Cambodia's Authoritarian Grip at the Local Level* is being prepared for a conference organised by the Association for Asian Studies in Singapore to be held in July 2014.

As a further activity this quarter, the Programme's research associates and fellows took part in an in-house training course on research communication.

**Economy, Trade and Regional Cooperation Programme (ETRC)**

The quarterly *Vulnerable Worker Survey*, monthly *Provincial Price Survey* and monthly *Flash Report* are progressing well.

The remaining three studies, i.e. *Pro-poorness of Fiscal Policy; Economic Growth, Inequality and Poverty Reduction*; and *Labour Market Policy*, under the Sida-supported five-year research project on *Inclusive Growth* are being finalised for publishing as CDRI Working Papers in June 2014. To provide further insight in respect of the *Inclusive Growth* project, the follow-up household survey in the 11 villages selected was conducted in March 2014, and the data processing is scheduled to take place in the second week of April.

The revised report on *Labour Migration in Cambodia: Causes and Impact on Poverty*,

*Inequality and Productivity* has been submitted to the Partnership for Economic Policy (PEP), and the team will make a presentation of the key study findings at the final workshop scheduled to take place on 5–8 May in Bolivia. The survey instruments for *Interrelations between Partner Countries' Public Policy, Migration and Development: Case Studies and Policy Recommendations*, funded by the Organisation for Economic Cooperation and Development (OECD), are being designed, and the fieldwork is scheduled to take place during the second week of April. The first round of fieldwork focusing on the 25 (qualitative survey) and 175 (quantitative survey) small and medium enterprises in Phnom Penh that were selected for the *SME Promotion Survey Project* has been successfully completed. This project has been commissioned by Japan International Cooperation Agency (JICA) and the preliminary findings have been shared with them and with the Ministry of Industry and Handicrafts.

In the first quarter of 2014, the Programme was commissioned by Hannover University, Germany, to undertake a follow-up survey on *Food Security, Impacts of Risks and Shocks, and Rural Development Paths in Cambodia and Laos*. The fieldwork for this is expected to start in late April 2014.

### **Natural Resources and the Environment (NRE)**

The team has carried out five research projects, two of which are Sida-funded. First, the analysis of a project on *Adaptation Capacity of Rural People in the Main Agro-Ecological Zones* is being prepared for publication as a working paper and policy brief. Second, a project on *Agricultural Technology: Practice and Gaps for Climate Change Adaptation* was started in January 2014. The immediate output includes the concept note and work plan for the project implementation.

The fieldwork results of the project on *China Goes Global*, a project funded by the Economic and Social Research Council, are now being transcribed. This is expected to be completed in May 2014.

The first working paper for the IDRC-funded project on *Climate Change and Water Governance in Cambodia* is being reviewed by the CDRI advisor. The team of Mini Study 2 has set up a model for assessing catchment hydrology and is organising the fieldwork for climate vulnerability assessment. The team of Mini Study 3 has developed a qualitative approach for the study of water governance. Under

the component of capacity building, five master's and 13 bachelor's degree scholarship students at the Royal University of Agriculture (RUA) and the Institute of Technology of Cambodia (ITC) are being trained.

Since October 2013, the NRE team has been implementing a project on *Mainstreaming Climate Change Resilience into Development Planning* with Hatfield Consultants. However, following the resignation of their team leader, ADB terminated the contract with Hatfield in March 2014. The NRE team has joined with GERES to submit a proposal to European Aid entitled *Empowering to Improve Livelihoods of all Stakeholders of the Informal Charcoal Value-chain in Cambodia, and Restoring their Dignity by Enabling them to Adopt Sustainable and Climate-smart Practices*.

### **Poverty, Agriculture and Rural Development (PARD)**

PARD has been working on ten projects, four of which are jointly-conducted with SD, ETRC, DGPSR and the Gender Working Group. The livestock case study report of the second phase of the ACIAR-funded project is in progress, while the extension case study report has been converted into an article which has been published in Annual Development Review 2013-14. The first draft report on the *Impact of Contract Farming on Smallholder Livelihoods* project, financially supported by Sida, has been completed, and now team is addressing expert comments. The full report of the IFPRI/USAID financially-supported project on *Development of the Fertiliser Industry in Cambodia* has been edited as a working paper. The Sida-funded project report entitled *Study on Farm Mechanisation and Agricultural Labour Market Trends* has been put on hold and the deadline has been extended to December 2014 since a key member of this project has left to pursue PhD study in Australia.

The two new initiatives – the WFP-financed projects on *Design of Evaluative Framework and Oversee a Baseline and Endline – Survey for the Productive Assets and Livelihood Support (PALS)*, and *Baseline Survey for the McGovern-Dole School Feeding and Take-Home Ration Project in Cambodia* – have reached the data processing stage. In addition, the new USAID/Fintrac-supported project, entitled *Horizontal Replication Survey for*

*Horticulture, Rice and Aquaculture*, is also at the data processing stage.

Reports on the four collaborative research projects: *ReBUILD* (SD), *Labour Migration in Cambodia: Causes and Impacts on Poverty, Inequality and Productivity* (ETRC), *Exploring Women’s Perception and Professional Progression at CDRI*, and the *Study on the Contribution of ACF Services in Improving Industrial Relations in Cambodia* (DGPSR) have been supplied for this publication by their respective programmes.

**Social Development Programme (SD)**

Three major projects are in progress. The first is the *ReBUILD* project funded by DFID, which consists of three sub-projects: Health Financing, Health Human Resources, and Health Contracting. The fieldwork and coding has been completed for all three sub-projects and it is expected that the draft reports will be produced in September 2014. The second major project is the *Child Labour Study*, which has four sub-projects to be conducted over two years. Draft reports for two of these have been

completed ready for review – Child Domestic Work, and the Impact of Adult Migration on Child Labour. This child labour study is part of the Cambodian-EXCEL project of World Vision Cambodia and is funded by the United States Department of Labor (USDOL) for four years starting early 2013 to 2016. The third major project, *ReBUILD II*, is also funded by DFID, and the literature review and the training of Appreciative Inquiry for all team members have been completed. The pilot test will start in May 2014.

SD is also presently completing a draft report for a commissioned project to assess the impact of a CARF-funded project, and has prepared an Expression of Interest, which has been submitted to USAID for a project entitled *USAID/Regional Development Mission Asia (RDMA) Pre-Solicitation Technical and Support Services for Monitoring, Evaluation, Learning and Knowledge Management Services in Asia*. This would be conducted in partnership with ICF International.

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## CDRI UPDATE

## MAJOR EVENTS

In January 2014, CDRI's Executive Director and the CDRI Coordinator of the Greater Mekong Sub-region Development Analysis Network (GMS-DAN), a collaborative research network of leading research institutions in the GMS, supported by International Development Research Centre (IDRC) of Canada and the Rockefeller Foundation, visited the recently established Myanmar Development Resource Institute – Centre for Economic and Social Development (MDRI-CESD) in Yangon. As a result of the visit, which was supported by the Swiss Agency for Development and Cooperation (SDC), MDRI-CESD will join the next stage of GMS-DAN's research collaboration. This will focus on employment, skills and labour movement in the GMS following the realisation of the ASEAN Economic Community (AEC) in 2015. MDRI-CESD will send a small delegation of Myanmar researchers to CDRI to share experiences and discuss longer-term collaboration.

During February 2014, a mid-term review of the invaluable 2011–15 programme of support provided to CDRI by the Swedish International Development Agency (Sida), CDRI's long term resource partner, was held. The review, conducted by independent consultants, involved intensive discussions with CDRI management and staff, consultations with CDRI partners and stakeholders, and a review of CDRI research products and other documentation. In their conclusions, the reviewers confirmed the

quality, policy relevance and value of CDRI's work in Cambodia and its carefully maintained balance of independence and engagement with the Cambodian government, its development partners and other major stakeholders. The review was also helpful in identifying priority issues to be addressed to further strengthen CDRI as a development policy research institution.

The 2014 Cambodia Outlook Conference, a partnership of CDRI and ANZ Royal, on the theme *Cambodia The Next Five Years – Reform and Competitiveness in an Integrated Region* was held in Phnom Penh on 27 February. The keynote opening address was again delivered by Prime Minister Hun Sen. The programme, redesigned to promote greater interactivity, focused on three sub-themes: *Cambodia The Next Five Years – An Agenda for Reform and Competitiveness*; *Skilling Cambodia: Human Resource Development and Education for a Competitive and Creative Cambodia*; and *ASEAN Economic Community (AEC) 2015 and Regional Integration: What does it really mean for Cambodia?* The conference presentations and materials, along with the 2014 Cambodia Outlook Briefs generated following the conference, are now available on the CDRI website: [www.cdri.org.kh](http://www.cdri.org.kh). So, too, is the new 2013-14 CDRI Annual Report and Annual Development Review on the theme *Development Inclusiveness, Sustainability and Governance in Cambodia*.

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A publication of CDRI—  
Cambodia's leading independent  
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**CAMBODIA  
DEVELOPMENT REVIEW**

Volume 18, Issue 1 (MARCH 2014)

*Cambodia Development Review* is published four times a year in simultaneous English- and Khmer-language editions by the Cambodia Development Resource Institute in Phnom Penh.

*Cambodia Development Review* provides a forum for the discussion of development issues affecting Cambodia. Economy Watch offers an independent assessment of Cambodia's economic performance.

*Cambodia Development Review* welcomes correspondence and submissions. Letters must be signed and verifiable and must include a return address and telephone number. Prospective authors are advised to contact CDRI before submitting articles, though unsolicited material will be considered. All submissions are subject to editing. CDRI reserves the right to refuse publication without explanation.

Responsibility for the ideas, facts and opinions presented in the Cambodia Development Review rests solely with the authors. Their opinions and interpretations do not necessarily reflect the views of CDRI.

## CDRI's Contact Details

56, Street 315, PO Box 622, Phnom Penh, Cambodia  
☎ (855 23) 881701/881384; ☎ (855 23) 880734  
e-mail: [cdri@cdri.org.kh](mailto:cdri@cdri.org.kh) / [pubs@cdri.org.kh](mailto:pubs@cdri.org.kh)  
website: [www.cdri.org.kh](http://www.cdri.org.kh)



Publisher: CDRI  
Managing Editor: YOU Sethirith,  
Production Editor: OUM Chantha  
Cover Photograph: CDRI's staff courtesy

Printing: Don Bosco Technical School, Phnom Penh

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ISSN 1560-7607 / ISBN 978-99950-52-05-8