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# ENGAGEMENT BETWEEN THE STATE AND CAMBODIAN RESEARCHERS

**Introduction**

Cambodia has undergone significant changes since the United Nations organised the first general election in 1993, which paved the way for many transformations. Cambodia has moved from war to peace, from planned socialist to free-market economy, and from one party to multi-party democracy, although the quality of each of these externally driven changes and transitions continues to be debated. One important change during the past decades has been the growth in scholarly writing and research about Cambodia by researchers from that country. Still, this kind of indigenous research is rare compared with some countries in the region. Furthermore, its contribution to and influence over policy and decision-making processes within the state has been limited, as has information available to the Cambodian public on social, economic and political issues.

*The Development Research Forum Symposium brings together around 250 emerging and established Cambodian researchers to share recent research findings, generate critical feedback and discussion, and consider policy implications for Cambodia's future, Phnom Penh, October 2013*

The research by Cambodians in Cambodia is mostly used by and accessible to foreign researchers and Cambodians living outside the country. On the one hand, Cambodian researchers have many advantages in conducting and interpreting long-term and well-grounded research studies in their own country, and are making important contributions to Cambodia's academia, currently dominated by foreigners. On the other, they face considerable challenges in both doing the actual research and in making a living as researchers.

This article assesses the state of social research and the constraints faced by Cambodian researchers since the end of the Khmer Rouge period by examining the interface between the politics of state building and the relationship of researchers to the existing power structure. While previous works have provided valuable contributions to the discussion about the state of research in Cambodia, they tend to focus on the institutional and cultural factors in explaining the underdevelopment of social

## In this Issue



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research. In this review, however, I argue that the nature and the character of the problems Cambodian researchers and Cambodia's research institutions have faced and continue to face are intrinsically linked to the approaches and requirements of state building efforts over the last thirty years. From this perspective, change and the future direction of social research in Cambodia cannot be understood simply by looking at the technical and institutional problems without addressing the political aspects facing Cambodian researchers.

**The Politics of State Building and its Impacts on Cambodian Researchers**

In examining the state of research and the constraints faced by Cambodian researchers, it is necessary to contextualise the roles of researchers and research institutions in the state-building process in Cambodia since the end of the Khmer Rouge period. After the collapse of the Khmer Rouge regime in 1979, a new government led by the People's Revolution Party of Kampuchea (later changed to the Cambodian People's Party) was formed by the Vietnamese authorities after their invasion of Cambodia at the end of 1978. The new government faced enormous challenges in rebuilding a country burdened with a shattered economy, a violent and traumatised society, disintegrated state institutions and isolation from the West.

In the 1980s, Cambodian leaders focussed on restoring the bureaucracy, establishing the party's authority from the centre down to the local level, and managing insurgent threats posed by the remaining Khmer Rouge and their allies operating from safe havens in Thailand (Chandler 1991; Grant 1998). During this period, the Cambodian government relied extensively on its Vietnamese counterpart for advice and funding as well as protection in the every-day affairs of the state. Evan Gottsman's *After the Khmer Rouge* documented some revealing insights of the policy and decision-making process inside the Cambodian state at the time. According to Gottsman, the policy process was characterised by top-down decision making and lack of consultation and transparency; a very small group was given huge discretionary power over policy and action (Gottesman 2005:247–253). More importantly, decisions and policies reflected the regime's patrimonial interests rather than legal and rational considerations.

Such undemocratic decision-making processes were actively promoted by Cambodia's top leaders, who remain in power today: they justified them as necessary due to the country's situation at the time. Officials at the implementation level, particularly those at subnational levels, were given authority to do "what fitted" in their respective locations as long as they maintained close personal relations with their respective patrons and generated the economic rents necessary to support their network. For instance, Gottsman (2005:233) shows that a number of government socialist-inspired policies such as the K5 project[1] ended up creating and supporting a large system of patronage networks running through the central ministries, military and local authorities. Official efforts at the time mainly focused on generating and eliciting personal benefits from state policies and activities at the expense of building and instituting state capacity to implement rules-based policy and decisions in the interest of the population at large (Ayres 2000; Hughes 2003). The practice was effective from the perspective of the government: not only did it assist the survival of the regime but it also served the interests of the party and its leaders, who constituted the government.

This state of affairs persisted throughout the 1990s and until today, despite interventions by the international donors who entered the country after the end of the Cold War in 1989 and the United Nations Transitional Authority in Cambodia (UNTAC) which took power alongside the Cambodian government under the Paris Peace Agreement of 1991 (Hughes 2003; Un 2005). International technical advisers and resources poured into Cambodia in the early 1990s from the West in relief efforts to rebuild the country. Yet these efforts were often stymied by local politics.

A study on *State Building in Cambodia* by Sok Say in the fisheries and forestry sectors finds that although the capacity of the Cambodian state has been slowly improving since 1993, it remains weak in many aspects where "[E]xtraction from the state through the capture by businesses and citizens in

[1] K5 project was implemented between 1985–89 as a labour-intensive effort of the People's Republic of Kampuchea regime to protect the Thai–Cambodian border through putting up trenches and bamboo fences and planting minefields.

general and interference from politicians on behalf and in favor of their clients into the affairs of the 'bureaucracy' and state agencies is common" (Sok 2012: 301). Likewise, in her book *Dependent Communities,* Caroline Hughes shows how local elites in the post-conflict aid-dependent contexts of East Timor and Cambodia coped and devised strategies to appear to comply with the demands imposed by international donors while at the same time maintaining their discretionary actions (Hughes 2009). The Cambodian leaders succeeded in achieving this objective, according to Hughes, by moving real decision-making power from state institutions into the CPP's personal network of trusted and loyal individuals, away from the influence and participation of international donors and the Cambodian public. Policy and decision making became elitist and secretive.

Consequently, policy and decision-making activities are not expected to involve the sharing of ideas with experts in the field. Rather than being generated by public debate between representatives of different groups, experts and political affiliations, decision making and policy development are entirely at the discretion of Cambodia's top political leaders and within the CPP's patronage network. Despite the fact that the combined opposition parties have consistently won between 39 and 49 percent of the vote in national elections since 1993, they remain marginalised in key decision-making processes.

To this end, decision making in Cambodia has always been subordinated to the interests of the regime's patronage network. This means that researchers and research institutions have little room and ability to set policymaking agenda and to participate in and influence decision-making processes. Nor does the Cambodian state and its leadership value the contribution and potential roles played by local researchers as far as the processes of state building and policymaking are concerned. However, it is important to note that there are exceptions and that variation exists between policy areas depending on the nature of the policy area and the vested interests involved.[2]

[2] Hughes and Conway (2003) have documented decision- and policymaking processes in Cambodia and showed the different outcomes of such processes in various policy areas from service delivery to resource-intensive sectors.

**'Cambodian Culture' as Obstacle to the Development of Research Capacity in Cambodia?**

This patrimonial approach to state building has significantly affected relations between the state and researchers and academic institutions in Cambodia, and the capacity of local researchers and research institutions, as will be discussed below. However, these real effects have been underestimated and often ignored in the existing literature about the development of research capacities in Cambodia. A recent report by a group of Cambodian and foreign researchers, commissioned by a consortium of local research centres called the Cambodia Development Research Forum, is a good example. In describing the challenges facing research institutions, universities and Cambodian researchers, the report notes "lack of adequate budget", "lack of facilities and infrastructure", and "lack of research culture" (Kwok et al. 2010). The report repeatedly attributes the barriers facing researchers and research institutions in Cambodia to "the lack of research culture" (Kwok et al: 29, 34). Such views are shared by other studies assessing the status of research in Cambodia (Pit and Ford 2004; Chet 2009). Frequently, "Cambodian culture", described as an innate tendency to accept hierarchy, intolerance of differences, passivity and lack of inquisitive traits, is used in the literature to explain the shortcomings of Cambodia's democratisation process, civil society development, and participatory governance, to name a few.

Surely, "cultural" factors have also come under scrutiny in other Southeast Asian countries. Duncan McCargo, for example, argues that the shortage of research and publications in Southeast Asia by local researchers is mainly due to "academic cultures" in the region where professional standing and reputation of researchers "has little to do with an active engagement with new research" (McCargo 2006:111). Other scholars disagree and argue that the development of research capacities in these countries is directly connected to historical legacy, the exercise of state power and particular development paths (Zeleza 2002; Hadiz and Dhakidae 2005; Goh 2011). For instance, Hadiz and Dahkidae have attributed the "poverty" of social science research in Indonesia to "the pragmatic and instrumental nature of the bureaucratised social sciences", which continue to be co-opted by the state in promoting particular agenda (2005:17).

In Cambodia, while "lack of resources", "lack of institutional support" and "lack of infrastructure" may be seen as technical and institutional issues, access to resources, facilities, infrastructure, and institutional arrangements conducive to research career and capacity development are all the result of political decisions about who gets what, when and how. Actually, strengthening critical research-based capacity is not at all the priority of the government and its ruling party, whose political legitimacy and strategy continue to focus on "its ability to get things done" through their preferred patrimonial governance and populist strategy of highly politicised rural development programmes. In this context, the kinds of contributions and capacity needed and desired by the regime are much more about mobilising resources and moving them to deliver the CPP's sponsored infrastructure projects in exchange for political support in rural areas. The result has been "almost complete absence of government funding" and appreciation for research in Cambodia (Chet 2009:161).

**Co-optation of Cambodian Researchers into the State**

Not only are Cambodian researchers subjected to political and economic marginalisation, they are being increasingly co-opted into the state bureaucracy and the CPP's personal network. Gottsman shows that well-educated people and intellectuals have been coerced to toe the state and party lines and subjected to constant scrutiny over their political loyalty (Gottesman 2005:348). These practices persist as political and economic power continue to be consolidated into the hands of Cambodia's leaders and their loyal network at the top of the CPP's structure (Heder 2005; Hughes and Kheang 2011; Pak 2011; Un 2011).

Indeed, an elaborate system of honours and titles has been established by the government and is currently used to award individuals within the bureaucracy, military, civil society and the business sector who are willing to support and contribute to the government and the CPP's agenda. For example, the appointment and promotion of public university presidents and senior academic personnel is decided by the government, and is much less related to their academic performance than to their personal connection with and backing from high-ranking government officials (Chet 2009:159). Despite the fact that more well-trained and educated personnel are being recruited and promoted into the state bureaucracy they have limited influence in the way decisions and policies are developed and implemented as the recruitment strategy is intended to secure the loyalty and support of the educated and professional class. Because of this, research studies that are considered too sensitive and might not be tolerated by the state rarely get done or published in Cambodia. The result has been to emphasise pragmatic and policy-related research rather than engage in substantive and critical research.

**The Roles and Influence of International Donors on Cambodia's Social Research**

The critical discussion on the state of research above is not to suggest that all Cambodian researchers are co-opted by the authorities or that no critical research is being done in Cambodia. In fact, outside of the state institutions and public universities, critical and independent research is being conducted by Cambodians. This is made possible through support and resources from international donors. Indeed, international donors have played very important and influential roles in setting research priorities, building research capacity, and mobilising the policy recommendations and actions arising from research findings.

One example is the Cambodia Development Resource Institute (CDRI), which was set up in 1990 as an independent development research organisation to provide policy research outputs on Cambodia's development priorities. All of its 36 researchers are Cambodians many of whom hold master's and doctoral degrees from overseas, reflecting an important change in research capacity in Cambodia. This high number of well-trained researchers enables the institute to conduct quality research studies in disciplines from economics and agriculture to governance and public sector reform. Over the years, CDRI has published widely about the state of development in Cambodia and has led many ongoing public forums within Cambodia and the region as an arena for public debate about Cambodia's future. In many ways, CDRI is independent and has been able to carry out research studies that are critical of the government's policy and ways of functioning because the institute is governed by a board of directors consisting of Cambodians and foreigners. CDRI's independent and quality work has also been

maintained as a requisite for getting funds from international donors, which currently constitute the major source of revenue for CDRI's operations and research activities.

More recently, a number of research institutions and centres have been established to take advantage of the growing research and consultancy needs in Cambodia. In fact, a great deal of literature, albeit of highly variable quality and rarely published, is being produced within this domain of the consultancy business. The abundance of consultancy work in Cambodia, emphasising immediate policy research, has had significant implications for the scarce existing research capacity as well as for institution building. Talented researchers are being absorbed into well-paid consultancy work. Research institutions, both public and private, are drawn into prioritising "consultancy research" as part of their core activities in order to survive (Kwok et al. 2010). Experience in other countries shows that where the foundations for solid and rigorous research capacity and practice have not been firmly established, the heavy reliance and emphasis on consultancy research further weaken rather than strengthen the quality and capacity of universities and researchers for long-term research and capacity development (Hadiz and Dhakidae 2005; McCargo 2006).

**Conclusion**

This paper has reflected on key constraints facing Cambodian researchers doing research in Cambodia. The political, economic and social transformations observed in recent years have opened up space for the development of research capacity and critical voices where Cambodian scholars themselves are given support and opportunities to do careful research. This promising but currently weak standing of Cambodian researchers in the Cambodian study and in the international literature could be explained by reference to the structural constraints faced by Cambodian researchers both in terms of doing the actual research as well as pursuing a serious research career.

Being a Cambodian and doing research in Cambodia, and speaking and knowing the local language and customs, immensely helps researchers in collecting data and information. Cambodian researchers are better able to gain the trust of informants to speak frankly, and better able to perceive what is actually happening on the ground than are foreign researchers hindered by lesser language skills and less knowledge of local practices. But, of course, this may make Cambodian researchers suspect in the eyes of those in authority who wish to conceal what they are doing. Because Cambodian leaders continue to dominate and protect their patron-client relationships through the use of hierarchical and personal networks in setting agendas and making decisions, government funding and support for research institutions is very limited and critical voices are rarely supported. Under such conditions, research in Cambodia has primarily been financed by foreign aid and international organisations and is likely to depend on them for the foreseeable future.

However, the state of research in Cambodia is only slowly changing. Compared with twenty years ago, the number of Cambodian graduates with post graduate degrees has been steadily increasing, many of whom have been doing social research. Nonetheless, the future direction of Cambodia's social research requires more than just the number of local researchers with master's and doctoral degrees. It is more about creating and providing local researchers with an enabling social, political and economic environment that promotes appreciation, autonomy and creative thinking of researchers and research institutions in Cambodia.

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# How Unequal is Access to Opportunity in Cambodia?

**Introduction**

In this article, we measure inequality of opportunity in Cambodia to access basic healthcare, education and infrastructure services. The focus here is also to determine key circumstances contributing to existing inequalities. Previous studies on inequality in Cambodia have tended to end up on one side, fixing on equality of outcome. And true enough, inequality of opportunity does have calculated effects on outcomes to which all segments of the population should claim access. But the quest for inclusive development impels us to look beyond mere analysis of outcomes, and to take a closer look at equality of opportunity.

Inequality in access to basic services and facilities could be caused by differences in effort or talent, or by the different opportunities available to individuals. Inequality due to differences in effort and talent is hard to address, if not impossible. Those with great talent or doing things with great effort seem to achieve or benefit more from services than those without talent or making mediocre effort. In most societies, there are broadly shared beliefs that such inequality is acceptable, i.e. it is deemed "fair" in that people who work hard are well rewarded.

In contrast, the existence of unequal opportunities for access to services is considered "unfair" or socially unacceptable and should therefore be redressed. Imagine a child born into a poor household in a less developed region; that child might lack access to basic education because there is no school nearby or because the family is too poor to afford education. It is not talent or effort that matters, but the opportunity. Those circumstances are beyond the child's control and should not decide whether he or she has access to education. The policy goal is to reduce inequality of opportunity so that all segments of the population have equal access to basic services such as education, healthcare and infrastructure.

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This article first describes the approach to computing the Human Opportunity Index, and then presents the empirical results of a household survey along with a discussion of the key findings. The final section concludes.

**Human Opportunity Index**

Inequalities in access to healthcare, education and basic infrastructure are measured by using the Human Opportunity Index (HOI), originally proposed by Paes de Barros et al. (2009). The HOI is a composite index consisting of two components: (i) the average coverage of the relevant service or facility (such as healthcare or education), and (ii) the distribution of the access to that service or facility across variables such as income group, geographic location and gender.

The higher the HOI score, the lower the gap in opportunity to access a particular service or facility. That said, the HOI value could be higher either because of higher average coverage of that service or facility and/or because access to that service or facility is more equally distributed among households across income groups, regions within the country, or between males and females. Take the case of the HOI for safe drinking water across rural and urban areas. The HOI could be higher if the average percentage of the country's population with access to safe drinking water is higher, also if the access to safe drinking water is more equally distributed across urban and rural areas. Similar interpretations could be made about the HOI for safe drinking water across income groups or gender.

Thus, the HOI for a particular service or facility can be seen as the overall availability of that service or facility in the country adjusted for the inequality in the distribution of the access to that service across income groups, regions and gender. The HOI then is the product of two components: the coverage rate (C), and inequality in its distribution (D). Here, the HOI can be written as:

$$HOI = C(1-D),$$

Table 1: Inequality of Opportunity in Access to Education

| | Net attendance rate (%) | | | | | | On-time completion rate (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Primary grade 1–6 | | Lower secondary grade 7–9 | | Upper secondary grade 10–12 | | Primary grade 6 | | Lower secondary: grade 9 | | Upper secondary: grade 12 | |
| | 2009 | 2011 | 2009 | 2011 | 2009 | 2011 | 2009 | 2011 | 2009 | 2011 | 2009 | 2011 |
| Coverage | 83.6 | 85.4 | 36.6 | 34.8 | 21.4 | 24.9 | 47.4 | 56.4 | 50.0 | 48.8 | 24.1 | 32.3 |
| D-index | 1.9 | 1.4 | 13.1 | 15.2 | 21.5 | 25.6 | 10.8 | 12.5 | 9.1 | 17.1 | 22.1 | 22.1 |
| HOI | 82.0 | 84.2 | 31.8 | 29.5 | 16.7 | 18.5 | 42.3 | 49.3 | 45.4 | 40.4 | 18.7 | 25.1 |
| N | 8264 | 2119 | 4061 | 999 | 4217 | 1083 | 1218 | 339 | 805 | 206 | 467 | 175 |

Source: Authors' calculations using CSES 2009, 2011

where the value of D ranges from zero to one and hence HOI is always equal to or less than C.

A higher D means that access to the particular service or facility is more unequally distributed. It is easy to see that the HOI can be increased by either improving the overall availability of a particular service or facility (the coverage rate C), or reducing the inequality in the distribution of the access to that service or facility (the distribution index D, often referred to as the dissimilarity index) or both. If existing opportunities are distributed equally, D is closer to zero and the HOI is closer to the coverage rate, C. If, on the other hand, existing opportunities are highly unequally distributed, D is closer to one and HOI will be much lower than C (see the Appendix for details of how to calculate C, D and HOI).

**Empirical Results and Discussion**

This study required a full household survey dataset so that we had sufficient data on the selected circumstance variables. They include gender of individual; age, gender and education level of household head; area of residence (urban or rural); household size; and household per capita consumption. We also used data from the Cambodia Socio-Economic Survey (CSES) 2009 and 2011.

**Education**

Net attendance and on-time completion rates are the two variables used to assess access to basic education. Net attendance rate is defined as the percentage of children in the age group that officially corresponds to primary/secondary schooling who attend primary/secondary school. On-time completion rate is the

Table 2: Contribution of Circumstance Variables to Inequality of Access to Education (%) – Net Attendance Rate

| Decomposition (%) | Primary grade 1–6 | | Lower secondary grade 7–9 | | Upper secondary grade 10–12 | |
|---|---|---|---|---|---|---|
| | 2009 | 2011 | 2009 | 2011 | 2009 | 2011 |
| Gender of individual | 8.5*** | 35.1*** | 4.6*** | 5.4*** | 0.6*** | 2.4*** |
| Gender of household head | 17.0*** | 3.5*** | 0.5*** | 2.2*** | 0.3*** | 3.0*** |
| Area of residence (urban/rural) | 13.2*** | 46.4*** | 31.9*** | 19.5*** | 65.0*** | 36.9*** |
| Household size | 1.4 | 1.8*** | 13.9*** | 10.1*** | 8.7*** | 3.0*** |
| Consumption per capita | 21.8*** | 8.6*** | 39.4*** | 31.6*** | 18.8*** | 10.1*** |
| Education level of household head | 5.2*** | 2.6*** | 5.0*** | 30.3*** | 4.0*** | 42.9*** |
| Age of household head | 32.8*** | 2.0*** | 4.7*** | 0.8*** | 2.6*** | 1.8*** |

Note: Logistic regression coefficient statistically significant at ***1%, **5% and *10%.
Source: Authors' calculations using CSES 2009, 2011

Table 3: Contribution of Circumstance Variables to Inequality of Access to Education (%) – Completion on Time

| Decomposition (%) | Primary grade 6 | | Lower secondary grade 9 | | Upper secondary grade 12 | |
|---|---|---|---|---|---|---|
| | 2009 | 2011 | 2009 | 2011 | 2009 | 2011 |
| Gender of individual | 21.3*** | 6.9 | 19.8*** | 22.1** | 2.0*** | 18.8* |
| Gender of household head | 1.6*** | 0.8 | 1.1*** | 10.7* | 0.3*** | 19.3*** |
| Area of residence (urban/rural) | 20.4*** | 15.1 | 33.0*** | 18.5** | 49.3*** | 20.9 |
| Household size | 10.8*** | 3.6 | 5.2*** | 7.0** | 6.1*** | 8.1 |
| Consumption per capita | 16.8*** | 21.6 | 31.4*** | 4.4 | 6.1 | 15.3 |
| Education level of household head | 18.0*** | 41.9*** | 2.2*** | 30.6*** | 19.3*** | 15.5** |
| Age of household head | 11.2*** | 10.1 | 7.3*** | 6.6 | 17.1*** | 2.1 |

Note: Logistic regression coefficient statistically significant at ***1%, **5% and *10%.
Source: Authors' calculations using CSES 2009, 2011

percentage of children in the age group entering the last grade of primary/secondary education. We categorise education into three levels—primary, lower secondary and upper secondary.

As illustrated in Table 1, for primary education, the average opportunity to attend school marginally improved to 85 percent in 2011 from 84 percent in 2009. The D-index also dropped from around 2 to 1 percent in the same period, indicating improved distribution of the available service without discriminating against individual circumstance variables. Increased average access and improved distribution resulted in a high HOI of 84 percent in 2011, up from 82 percent in 2009.

The overall trend is similar for lower and upper secondary education; yet, a few observations should be pointed out. First, average opportunity tended to be lower at the higher level. Access to lower and upper secondary averaged 36 and 23 percent, respectively, during 2009–11. Secondly, the D-index was also trending upwards signifying possible discrimination against certain groups particularly the worse-off. Lastly, the decrease in access rate and increase in dissimilarity index resulted in a low HOI.

Another education indicator is on-time completion rate at sixth, ninth and twelfth grades. The results in Table 1 show that children performed relatively better at sixth grade, with a completion rate of 56 percent in 2011. The D-index was also low at 12 percent in the same year. However, access and distribution become an issue at higher grades, specifically at grade twelve. The on-time completion rate was only 32 percent in 2011 with a D-index of 22 percent.

Tables 2 and 3 present the contribution of each circumstance variable to overall inequality of opportunity. For lower secondary education in 2011, area of residence explains 19 percent of the inequality of opportunity compared to per capita household consumption (32 percent) and education level of household head (30 percent). In the same year and relative to other variables, the three factors remained significant at upper secondary level. Where a child was born contributes 37 percent compared to household consumption at 10 percent. Education of

Table 4: Inequality of Opportunity in Access to Health (%)

| | Vaccination | | Antenatal care | | Delivery in public hospital | |
|---|---|---|---|---|---|---|
| | 2009 | 2011 | 2009 | 2011 | 2009 | 2011 |
| Coverage | 94.3 | 98.7 | 85.0 | 92.2 | 41.5 | 69.6 |
| D-index | 1.2 | 0.4 | 2.9 | 1.1 | 9.8 | 2.1 |
| HOI | 93.2 | 98.2 | 82.4 | 91.1 | 37.6 | 68.1 |
| N | 12443 | 16327 | 23437 | 16327 | 23437 | 16327 |

Source: Authors' calculations using CSES 2009, 2011

Table 5: Contribution of Circumstance Variables to Inequality of Access to Health (%)

| Decomposition (%) | Vaccination | | Antenatal care | | Delivery in public hospital | |
|---|---|---|---|---|---|---|
| | 2009 | 2011 | 2009 | 2011 | 2009 | 2011 |
| Gender of individual | 4.6*** | 21.7*** | – | – | – | – |
| Gender of household head | 19.6*** | 15.2 | 3.3*** | 12.4*** | 1.7*** | 2.6*** |
| Area of residence (urban/rural) | 44.2*** | 16.0*** | 40.1*** | 22.5*** | 69.5*** | 52.7*** |
| Household size | 2.5*** | 9.0*** | 1.7*** | 21.9*** | 2.3*** | 1.9*** |
| Consumption per capita | 13.1*** | 11.5*** | 37.1*** | 32.3*** | 10.7*** | 13.5*** |
| Education level of household head | 3.8*** | 25.2*** | 3.3*** | 7.2*** | 5.5*** | 14.2*** |
| Age of household head | 12.3*** | 1.3*** | 14.6*** | 3.6*** | 10.3*** | 15.0*** |

Note: Logistic regression coefficient statistically significant at *** 1%, **5% and *10%.
Source: Authors' calculations using CSES 2009, 2011

household head seems to be significant in explaining the probability of a child accessing upper secondary education. The results on the contribution for the on-time completion rate depict similar trends.

**Health**

We chose three variables to measure access to basic healthcare: vaccination, antenatal care and delivery in public hospital. Vaccination (rate) is the percentage of children between 0–23 months old that receive a vaccination. Antenatal care refers to the percentage of women who seek antenatal care during pregnancy, and delivery in public hospital refers to the percentage of women who give birth in public health centres.

Both the coverage and distribution of access to vaccination, antenatal care and delivery in public hospital improved between 2009 and 2011 resulting in high HOI scores. Table 4 presents the evidence. Access to vaccination, for instance, was near universal reaching 99 percent coverage in 2011 and almost evenly distributed (D-index equals 1 percent). The percentage of pregnant women who received regular antenatal care was also high at 92 percent in 2011 and depicts an almost uniform distribution. Nonetheless, the percentage of women who gave birth in public health centres was relatively low, but improving, at 70 percent in the same year.

The decomposition results reveal some interesting observations (Table 5). On access to vaccination, there is no single circumstance variable dominating the probability of access even though gender of children and education level of household head seem to be relatively significant in 2011. Descriptive statistics also support the finding that there is no significant difference in access to vaccination among children across consumption quintiles, region and gender (results not shown).

However, area of residence and per capita household consumption were the main contributors to the probability of women seeking antenatal care during their pregnancy. For instance, only 79 percent of pregnant women residing in rural areas sought antenatal care compared to 96 percent of women in

Table 6: Inequality of Opportunity in Access to Basic Infrastructure (%)

| | Access to electricity | | Access to safe water | | Access to sanitation | |
|---|---|---|---|---|---|---|
| | 2009 | 2011 | 2009 | 2011 | 2009 | 2011 |
| Coverage | 29.5 | 41.8 | 45.5 | 48.2 | 43.4 | 50.8 |
| D-index | 45.0 | 30.0 | 15.5 | 16.4 | 26.6 | 23.3 |
| HOI | 16.2 | 29.3 | 38.4 | 40.2 | 31.8 | 38.9 |
| N | 11971 | 3592 | 11971 | 3592 | 11971 | 3592 |

Source: Authors' calculations using CSES 2009, 2011

Table 7: Contribution of Circumstance Variables to Inequality of Access to Basic Infrastructure (%)

| Decomposition (%) | Access to electricity | | Access to safe water | | Access to sanitation | |
|---|---|---|---|---|---|---|
| | 2009 | 2011 | 2009 | 2011 | 2009 | 2011 |
| Gender of household head | 1.9 | 1.2 | 4.6** | 4.3*** | 0.9 | 1.6* |
| Area of residence (urban/rural) | 69.6*** | 51.8*** | 63.0*** | 62.9*** | 48.6*** | 35.2*** |
| Household size | 1.2*** | 1.2*** | 0.8 | 1.8 | 2.8*** | 3.2*** |
| Consumption per capita | 22.0*** | 27.8*** | 23.5*** | 13.4 | 36.8*** | 37.6*** |
| Education level of household head | 1.6** | 13.1*** | 3.9*** | 15.7*** | 1.7 | 12.2*** |
| Age of household head | 3.7** | 5.0*** | 4.2 | 1.9 | 9.1*** | 10.2*** |

Note: Logistic regression statistically significant at ***1%, **5% and *10%.
Source: Authors' calculations using CSES 2009, 2011

Phnom Penh and 94 percent in other urban areas (results not shown). Area of residence, per capita household consumption and age of household head were the main contributors to the probability of women giving birth in public hospital.

**Basic Infrastructure**

Access to infrastructure such as electricity, safe water and sanitation—all basic human services—is the foundation for health and well-being. Access to electricity is defined as the percentage of households having access to public electricity supplies, access to safe water is the percentage of households having access to safe water sources,[1] and access to sanitation is the percentage of households having proper toilets within their premises.[2]

As presented in Table 6, access to infrastructure improved between 2009 and 2011, evident by the improved coverage rates. Compared to others, access to electricity increased considerably from around 30 percent in 2009 to 42 percent in 2011. However, this coverage is very low compared with other countries in the region. Worse still, despite the improved trend, the inequality of access to electricity is very high (30 percent), resulting in a low HOI (29 percent). Access to safe water, with a D-index of 16 percent in 2011, shows better distribution than the other two variables.

Regional differences, shown in Table 7, explain much of the differing access to basic infrastructure, followed by per capita consumption, a proxy of economic wellbeing. Descriptive statistics also confirm this finding. In 2011, for example, 98 percent households in the capital city Phnom Penh had access to power, compared to only 24 percent in rural areas. No doubt, the inequality is high as shown by the D-index.

**Conclusion**

Using Cambodia Socio-Economic Survey data for 2009 and 2011 to compute the Human Opportunity Index, this article provides an estimate of the inequality of opportunities in healthcare, education and basic infrastructure in Cambodia. The findings suggest that Cambodia has performed well in primary education but secondary levels have lagged far behind. The average access to primary education is relatively high, while the inequality of access is low. This does not hold true for secondary education, where access is comparatively low and the distribution of that access is markedly uneven.

Access to healthcare has improved considerably over time, and headway in the distribution of opportunities is well documented. However, the country has a very poor record of providing basic infrastructure, i.e. access to electricity, safe water and sanitation. Despite progress, the coverage of those services is still low compared to the rest of the region. Worse, inequalities in providing accessibility are also large, suggesting high concentration of coverage among particular segments of the population. While a policy tool should target both issues of coverage and distribution, addressing the former should be a priority given the extent of the coverage problem compared to the distribution.

We further argue that regional differences explain much of the overall inequality in access to

[1] Including piped water in dwelling or on premises, public tap tubewell/borehole, protected dug well or improved rainwater collection.

[2] Includes improved latrines—pour flush connected to sewerage, and pour flush to septic tank or pit; and unimproved latrines—pit latrine with/without slab, and latrine overhanging field or water.

opportunities. While urban areas offer residents very good coverage of key opportunities, rural areas or disadvantaged parts of the country do not. Economic status of households also partly determines whether people can afford a basic level of service where they have to incur costs to get access. Education level of household head, too, accounts for the poor distribution of opportunities provided to acquire healthcare and education. These determinants are not mutually exclusive, however. A policy tool to tame and temper such inequality of opportunities should take into account all those contributing factors. Addressing the economic problem might help to overcome other barriers related to access such as regional differences, or vice versa. This is something policymakers should ponder.

**Appendix**

The HOI is the product of two components: the coverage rate (C), and the dissimilarity index (D). Here, HOI can be written as:

$$HOI = C(1-D),$$

where $0 \leq D \leq 1$ and $HOI \leq C$ (1)

Coverage rate (C) can be computed as:

$$C = \sum_{i=1}^{n} w_i p_i , \quad (2)$$

where individual/household is $i=1,2,\ldots, n$; $w_i$ is the weight assigned to individual/household $i$ in the survey sample; $pi=\{0,1\}$, $p_i=1$ means individual/household $i$ has access to the opportunity and 0 otherwise.

The D index is given by:

$$D=\frac{1}{2\bar{p}}\sum_{i=1}^{n} w_i|\hat{p}_i - \bar{p}| \quad (3)$$

where $\hat{p_i}$ is the predicted probability from the logistic regression of the variable of access on a set of circumstance variables, for instance education level of household head, area (urban or rural), or per capita consumption in a household.

It is more interesting for policymakers to see the contribution of different circumstances to overall inequality of opportunity by using the decomposition method proposed by Hoyos and Narayan (2011). The approach can also be found in Vega et al. (2010) and Son (2012). The logistic model of the probability of access to an opportunity is given by:

$$\ln(\hat{y}_i) = \sum_{j=1}^{m} \hat{\beta}_j X_{ij} , \quad (4)$$

where $X_{ij}$ is vector of circumstance variables, and $\hat{\beta_j}$ is a vector of coefficient estimates from the logistic model using maximum likelihood estimation method. The decomposition of inequality in opportunity can be derived by taking variance of both sides in equation (4) (see Field 2003; Son 2012) to get:

$$\sigma^2 \ln(\hat{y}_i) = \sum_{1}^{m} \hat{\beta}_j \mathrm{cov}(X_{ij}, \ln(\hat{y}_i))$$
$$S_j = \frac{100 \times \hat{\beta}_j \mathrm{cov}(X_{ij}, \ln(\hat{y}_i))}{\sigma^2 \ln(\hat{y}_i)} \quad (5)$$

where $S_j$ is the percentage contribution of $j^{th}$ circumstance variable to the total inequality of opportunity.

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# A Triple Focus on Climate Change Vulnerability at Catchment and Commune Level

**Background**

Cambodia has been repeatedly hit by natural disasters, mainly droughts, floods and windstorms. The area considered most affected is the Tonle Sap region, where both the frequency and intensity of climate-related hazards have steadily increased, confirmed by the findings of our previous research (Chem and Kim 2014). These environmental shocks are expected to have serious adverse impacts on local livelihoods due to high exposure to flood and drought, increased sensitivity (degradation of key ecosystem services and changes in local landscape), and relatively low adaptive capacity (Chem and Kim 2014).

We hypothesise that both climate change and human activities have caused changes in water availability in the Tonle Sap catchment. Climate change has led to uncertain rainfall patterns and higher temperatures. Agricultural intensification, industrialisation, infrastructure development and urbanisation are changing hydrological processes in the catchment, affecting the availability of a sufficient quantity and quality of water. Changes in the timing of the flow, quantity and quality of water have implications for farmers and other water users. The result is water shortages and greater risk of flooding, i.e. too much or too little water, in critical localities at critical times. Therefore, understanding the implications of stream flow and water availability changes for livelihoods is crucial.

Understanding of the possible impacts of hydrological changes on livelihoods and the level of vulnerability to climate change impacts at commune and catchment level must consider the three components of vulnerability: exposure, sensitivity, and adaptive capacity (MRC 2010: 5). The study applies these terms as defined by the Intergovernmental Panel on Climate Change (IPCC 2001):[1]

*Exposure*: "The nature and degree to which a system is exposed to significant climatic variations." (p. 987)

*Sensitivity*: "The degree to which a system is affected, either adversely or beneficially, by climate-related stimuli. The effect may be direct (e.g., a change in crop yield in response to a change in the mean, range, or variability of temperature) or indirect (e.g., damages caused by an increase in the frequency of coastal flooding due to sea level rise)." (p. 993)

*Adaptive capacity*: "The ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences." (p. 982)

Consultation with stakeholders at local and subnational levels should therefore focus on these three components. Before carrying out a detailed assessment at the commune and household level, it is necessary to identify the most vulnerable communes through consultation and participation processes involving relevant provincial technical departments and district authorities.

This article summarises the results for the first of a series of three participatory assessments, which aim to identify the communes that are most vulnerable in three catchments of the Tonle Sap Lake—Stung Chrey Bak in Kompong Chhnang province, Stung Pursat in Pursat province, and Stung Chinit in Kompong Thom province. The specific objective of this initial assessment study was to better understand communities' vulnerability to climate change impacts through a triple focus on exposure, sensitivity and adaptive capacity. Another aim was to collect secondary data and information about natural disasters and disaster preparedness and planning at subnational and local level. It also served to introduce the district authorities to the research team and the proposed project activities in their districts.

To obtain specific information, we used the guiding question: Which communes are the most vulnerable in the three catchments—Stung Chrey Bak, Stung Pursat and Stung Chinit? This was

Prepared by Kim Sour, research associate, and Dr Chem Phalla, senior research fellow and programme coordinator, Natural Resource and Environment Programme, CDRI. This may be cited as: Kim Sour and Chem Phalla (2014), "A Triple Focus on Climate Change at Catchment and Commune Level", *Cambodia Development Review,* 18(2): 12–17.

[1] "System" refers to both human and natural systems.

followed by additional questions to look into the frequency and scale of hazard impacts and the economic and social damage they cause, and the extent of sensitivity and adaptation capacity to those hazards at the local or community level.

Note that not all of a district's administrative communes lie within the catchment boundary; those communes located outside the catchment were excluded from the assessment.

**Method**

This assessment was based on consultations with government technical agencies in the provinces of Kompong Chhnang, Pursat and Kompong Thom, including the provincial departments of Water Resources and Meteorology, Environment, Rural Development, Public Works and Transport, and Agriculture, Forestry and Fisheries. Also consulted were the Fisheries Cantonment, Forestry Cantonment, subnational disaster management committees, and the district governors of districts within the three catchments.

Secondary data and information, especially reports regarding natural disaster risk reduction and management planning, from the provincial technical departments and district authorities were reviewed and used in the analysis.

The consultations captured comprehensive information on exposure (to flood, drought, storm, disease epidemic and insect infestation), sensitivity, and adaptation capacity. Questions to assess exposure focused on the communes affected, types of disasters, frequency, scale of impacts (loss of cropland and/or crop damage in ha or percentage), and economic and social costs. Those aimed at determining sensitivity centered on population density, changes in key ecosystems (wetlands, fish sanctuaries), changes in forest cover in ha or percentage, and perceptions of the implications of population growth. Questions to evaluate adaptive capacity looked at local people's awareness of past and present climate-related events, and what they thought would happen in the future.

The research team, through the consultation process, gained deeper understanding about the availability and the effectiveness of climate change information dissemination activities, the integration of climate change issues into development planning, the effectiveness of existing community-based organisations in terms of climate change adaptation and natural resource use and management, and the capacity and capability of provincial technical departments in supporting and helping local communities and people affected by weather-related natural disasters.

Information and data collected from the consultations were cross-checked with reports and development plans provided by the participants and against the commune database (MOP 2010) to identify the communes that are most vulnerable to the effects of climate change in the three catchments.

**Results**

***Stung Chrey Bak Catchment, Kompong Chhnang Province***

*Exposure*: Flood and drought are the main risks in the Stung Chrey Bak catchment. Major floods occurred in 2002 and 2011, while drought happens almost every year. Three communes are affected by drought and all communes affected by flood in Tuek Phos district. Five communes are affected mostly by drought in Rolea B'ier district. Two communes, Kbal Tuek in Tuek Phos district and Kouk Banteay in Rolea B'ier district, are the most vulnerable in terms of flood and drought risk, and recommended for detailed assessment.

*Sensitivity*: Poverty is still high in the province as a whole. The population in the province is reported to be increasing, resulting in rapidly rising demands for ricefields and water. Ecosystem services are being degraded. Forest cover is reported to have decreased noticeably, from 213,942 ha in 2002 to 210,682 ha in 2010 (MOP 2010). This is due to logging and land conversion in natural forest, national parkland and protected areas by local people and land concession companies. Deforestation is a major cause of increased soil erosion and water run-off.

*Adaptation capacity*: People who live in the uplands are less likely to be aware of climate change. Those living in the lowlands, an area mostly affected by drought, know how to manage water for dry season rice cultivation. There is a subnational committee for disaster management (CDM), composed of provincial department officers and chaired by one of the vice-governors, which is represented at village-level by volunteers. The CDM has an emergency disaster preparedness plan, but low capacity and limited financial resources mean that emergency response is not sufficient or quick enough to meet urgent needs. Feedback

from the participants noted that when faced with an emergency, disaster agencies have to share the budget and sometimes borrow equipment such as tractors and trucks from a private owner. Despite the training and awareness-raising activities to promote drought-resistant crops provided by the Provincial Department of Agriculture, Forestry and Fisheries, very few changes have been observed.

Figure 1 shows the districts and communes within Stung Chrey Bak catchment.

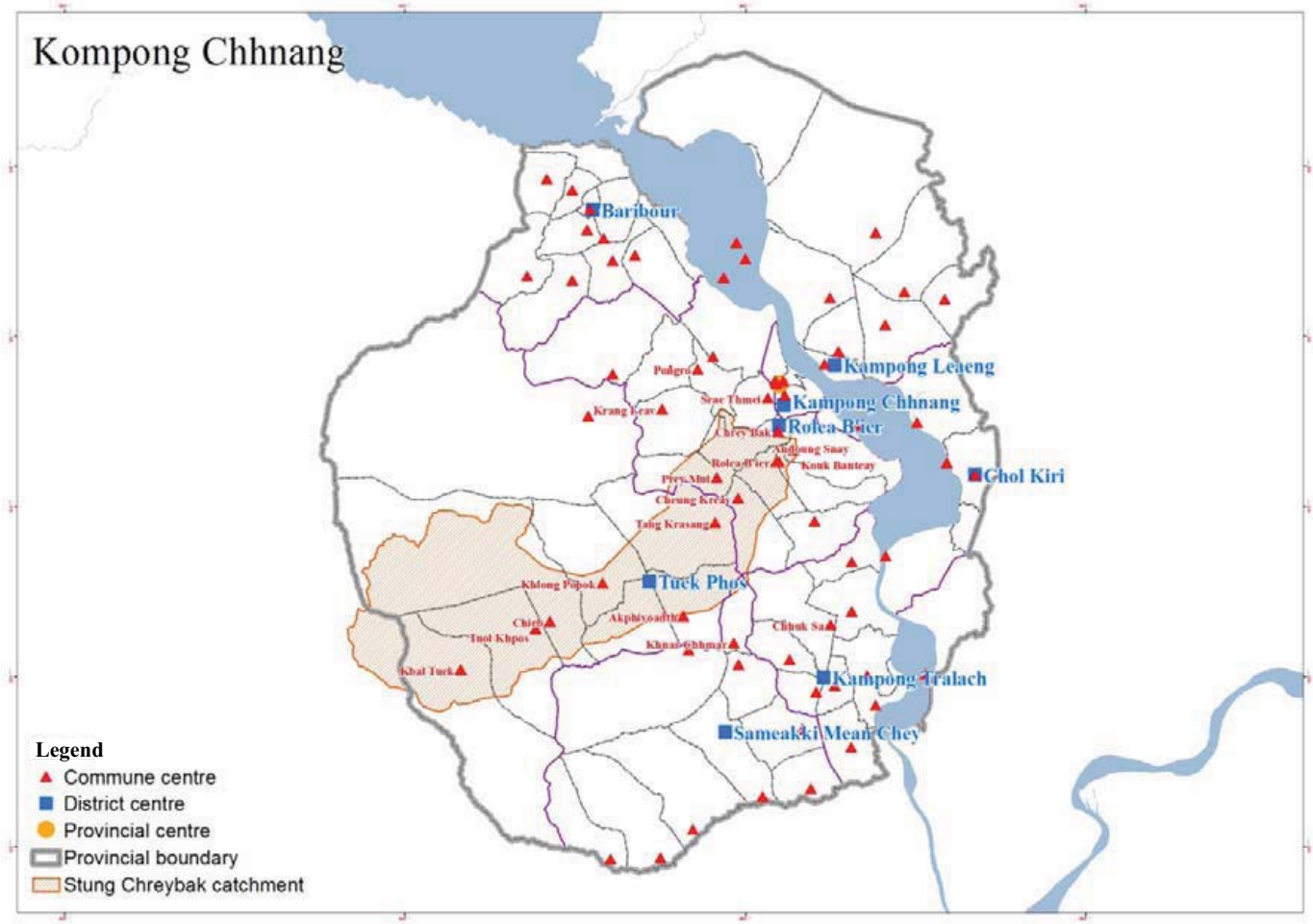
***Stung Pursat Catchment, Pursat Province***

*Exposure*: Thirteen communes in the four selected districts have been identified as highly vulnerable, particularly to floods and droughts in 1996, 2000, 2001, 2013 and 2014. Anlong Reab and Pramaoy communes in Veal Veaeng district, Samraong commune in Phnum Kravanh district, and Snam Preah commune in Bakan district are the most vulnerable and recommended for further study. Communes in Bakan and Kandieng districts are affected by both flash flooding and river flooding (from the Tonle Sap Lake). Participants also reported severe storms and disease outbreaks. In 2000–01, storms destroyed about 200 ha of ricefields in Pramaoy commune, and a storm in 2014 destroyed nine houses in Anlong Reab commune.

*Sensitivity*: There were reports of losses of forest cover, which had resulted in soil erosion and water-run off. The population of Pursat province has increased, especially in Bakan district, so sensitivity is high. Population growth has led to rising demands for ricefields and water. Also reported were a growing number of conflicts over water demands for dry rice cultivation in Stung Pursat irrigation scheme, particularly in Bakan district.

*Adaptation capacity*: Communities in Phnum Kravanh and Bakan districts are more aware of climate change and are well prepared for natural disaster. They have requested the building of a water storage structure, the so-called "giant pot", to secure a water supply during the dry season. People

Figure 1: Districts and Communes Located in Stung Chrey Bak Catchment




Note: The communes most vulnerable to climate change impacts are Kbal Tuek and Kouk Banteay

living in Bakan district are well prepared for river flooding, and they look out for information about water levels along the Mekong River: if the water level at Kratie recedes, the river water in Bakan district will rise within the next three days.

Importantly, there is a provincial CDM, which is chaired by one of the vice-governors and comprised of provincial department officers, and there are volunteer members at village level. The CDM has a document titled "Plan for Preparedness and Emergency Response to Disaster" (Khoy 2013). There are 29 farmer associations (supported by both the government and NGOs), fishery communities, farmer water user communities, and seven forestry communities located in Pursat province; their strong social network is critical in helping to build resilience.

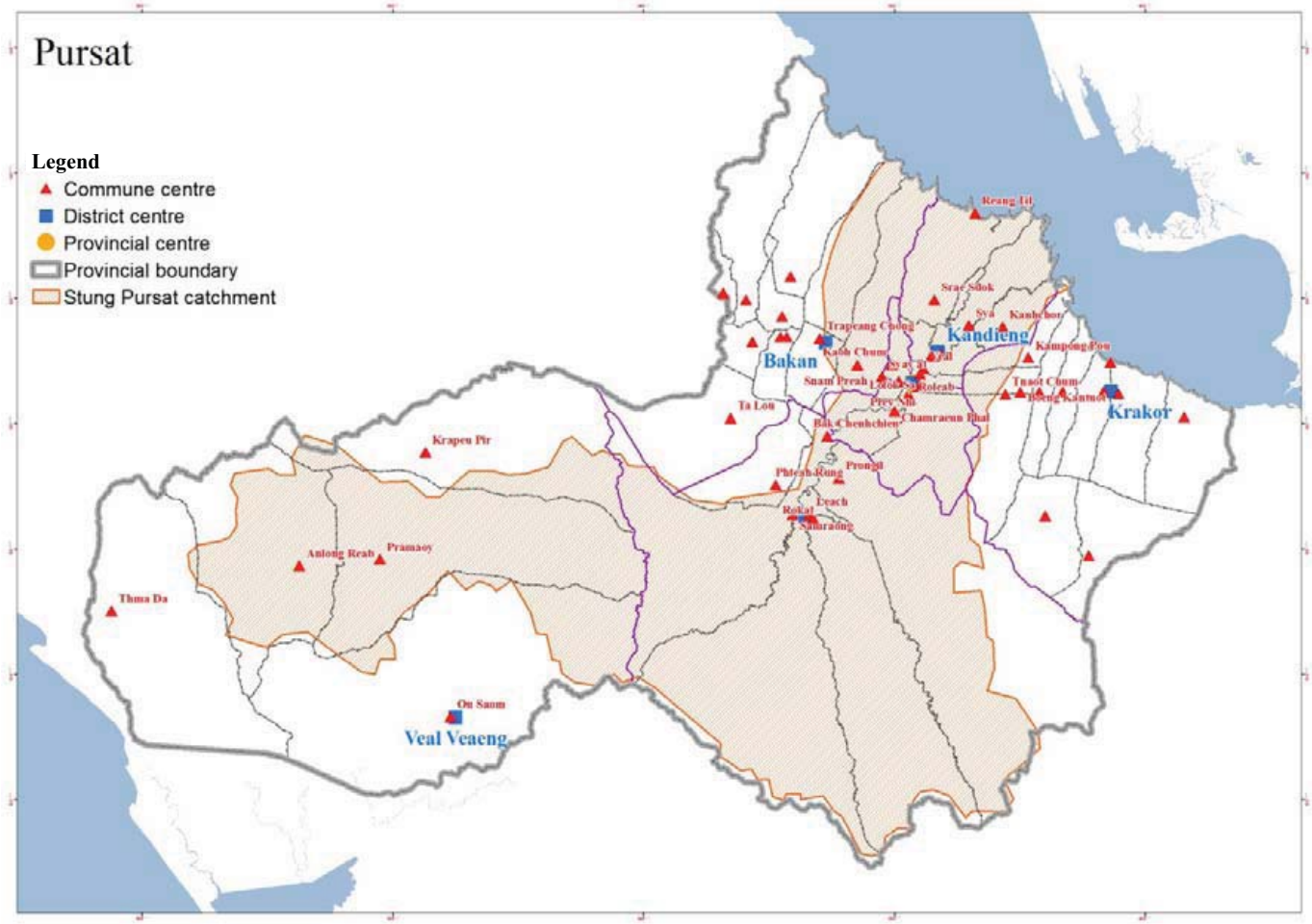
Figure 2 illustrates the districts and communes within Stung Pursat catchment and their proximity to the Tonle Sap Lake; those furthest from the Lake are situated in the uplands.

***Stung Chinit Catchment, Kompong Thom Province***

*Exposure*: More than ten communes in Baray and Santuk districts have been severely affected by flood and drought. These communes are exposed to the risk of flash floods, flooding from rivers (including the Stung Chinit), streams and the Tonle Sap Lake when swollen by the Mekong River. Major flooding happened in 2000, 2006, 2007, 2011 and 2012, with drought occurring in 2003. There was also report of a storm in 2012. Flooding in 2006 damaged 97 ha of rice and 30 ha of other crops in Baray district, and the 2000 and 2011 floods destroyed almost all of the ricefields in Santuk and Baray districts. In Santuk district, floods in 2006 and 2007 damaged 133 ha of rice and 566 ha of other crops.

Chong Doung and Tnaot Chum communes in Baray district, and Kakaoh, Chroab, Tang Krasang and Pnov communes in Santuk district, have been identified as the most vulnerable and need to be investigated in more detail.

Figure 2: Districts and Communes Located in Stung Pursat Catchment




Note: The communes most vulnerable to climate change impacts are Anlong Reab, Pramaoy, Samraong, Snam Preah

*Sensitivity*: In 2010 there were 194,819 people (99,736 women) living in Baray district and 97,164 (49,098 women) in Santuk district (MOP 2010). These high population densities, particularly in Treal commune, result in high sensitivity. Deforestation is widespread and caused by both local people and land concession companies. Significant loss of forest cover will occur within the next five years, according to the Kompong Thom Forestry Cantonment. Santuk district (Boeng Lvea commune) is the most affected by deforestation. There were also claims of upstream mining activities causing pollution in downstream areas, though the technical agency concerned did not confirm any such reports.

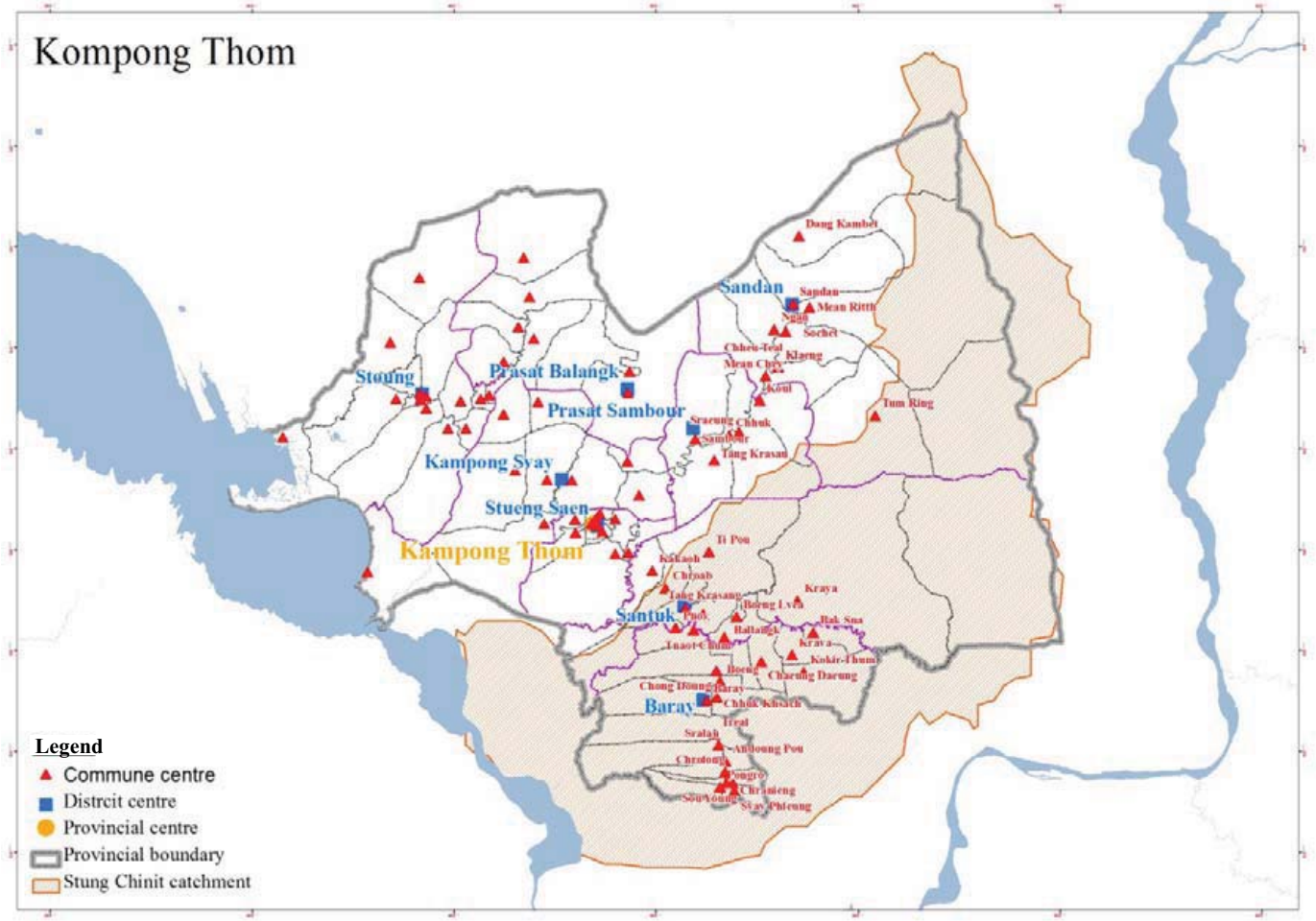
*Adaptive capacity*: Similar to the other two provinces, there is a CDM and a plan for disaster preparedness and emergency response. There is also a provincial Red Cross, which is considered the main disaster agency as it reacts more quickly than others. The Red Cross uses radio (102 MHz), loudspeaker and telephone to broadcast warnings to local people. The CDM uses official letters to communicate with district and commune authorities but in an emergency they telephone the district authorities directly and then the commune councils.

Local authorities have conducted a campaign to raise local people's awareness of flood risk management and to promote hygiene and sanitation. There are other organisations (Srae Khmer, UNICEF, Oxfam and CAVAC[2]) that help local people with disaster preparedness planning and water and sanitation provision.

Although there are mechanisms in place, participants reported that work on the ground with communities is still absent due to lack of financial and human resources, materials and equipment. There is no proper safe place. When a flood is imminent, particularly river flooding during the rainy season, people move their livestock and make temporary shelters along National Road No. 6. Lack of water is not a problem in Stung Chinit because there is a large irrigation system. But there is a big

[2] Cambodia Agricultural Value Chain Programme.

Figure 3: Districts and Communes Located in Stung Chinit Catchment




Note: The communes most vulnerable to climate change impacts are Chong Doung, Tnaot Chum, Kakaoh, Chroab, Tang Krasang and Pnov

problem with pest invasion and soil quality, so it is hard for people to cultivate rice or other crops in the irrigation compound. In this case, local farmers have to move down to the area near the mouth of the Lake during the dry season, where the soil is fertile and where vast areas of inundated forest have been cleared for dry season farming.

Figure 3 shows the administrative borders of the districts and communes within Stung Chinit catchment, and the areas from the highest to the lowest land at the mouth of the Tonle Sap Lake.

**Conclusion and Suggestions for Further Fieldwork**

Similar to our previous findings (Chem and Kim 2014), most participants referred to exposure as the most prominent component of climate change vulnerability, specifying the serious flooding in 2000 and 2011 in all three catchments. Communes in the upland areas only experience flash flooding when communes located downstream close to the shore of the Tonle Sap Lake are affected by both flash and river floods. Drought has occurred almost every year in all three catchments. There were also reports of storms, lightning strikes, and human and livestock disease outbreaks.

Twelve communes, two in Stung Chrey Bak catchment (Kbal Tuek and Kouk Banteay), four in Stung Pursat catchment (Anlong Reab, Pramaoy, Samraong, Snam Preah), and six in Stung Chinit catchment (Chong Doung, Tnaot Chum, Kakaoh, Chroab, Tang Krasang and Pnov), are the most severely affected and require a more detailed appraisal. However, this identification, based solely on exposure, seems to overshadow the two other components of vulnerability—sensitivity and adaptive capacity.

It appears that although local people recognise their communities are exposed, at that level of stakeholder participation, only a few understand the implications of climate change impacts and the extent and variety of environmental threats. This makes it very difficult to both identify disaster losses and to standardise data to compare sensitivity between communes. People who live in downstream areas seem to have higher adaptive capacity than those living in upstream areas.

Likewise, even though there are mechanisms in place at subnational level, i.e. specific emergency disaster management plans and policy, in practice the physical equipment, materials, financial and human resources, and preparedness to implement disaster reduction and recovery plans are absent. All three provinces have a subnational committee for disaster management with volunteer members at village level; however, when disaster strikes, agency members have to share resources and sometimes borrow equipment from private owners in order to respond to urgent need.

Following this first fieldwork and assessment study, it is suggested that the research team dig deeper into climate change vulnerability by continuing to focus on the triple components of exposure, sensitivity and adaptive capacity. To overcome the difficulties encountered in imparting the concepts of sensitivity, and adaptive capacity, and to get beyond the ways that local people initially frame their problems, the team should conduct interviews and focus group discussions in detail with local people in the communes identified as the most vulnerable. In this way, we stand to find out more about the challenges local communities face in adapting to climate change. The findings can then be used to inform adaptive intervention mechanisms at catchment and commune levels.

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# Economy Watch—External Environment

This section describes economic indicators of major world economies and economies in South and East Asia.

Economic activity in emerging and developed countries continued to strengthen in the first quarter of 2014 despite concerns about uneven performance, particularly in rich economies.

Real GDP growth in Malaysia rose in the first quarter, to 6.2 percent from 4.1 percent a year earlier. Singapore's economy performed strongly, growing 5.1 percent, compared to 0.2 percent a year earlier. Real GDP growth in Indonesia dropped slightly to 5.2 percent. Year on year growth in Thailand decreased to 3.1 percent in the first quarter, compared to 5.4 percent a year earlier. Political tensions have escalated, leading to a military coup. The situation has potentially affected the business environment and confidence. One of the spillover effects has been that the junta has sent tens of thousands of illegal Cambodian migrant workers home, further affecting economic activities in Thailand and Cambodia, particularly the supply of unskilled labour.

Growth in China and other East Asian economies—Hong Kong, South Korea and Taiwan—remained strong. Real GDP growth in China and Hong Kong declined slightly to 7.1 and 2.5 percent in the first quarter, respectively. Growth in South Korea increased to 4.1 percent and in Taiwan to 3.1 percent.

Growth in industrialised economies has improved even though prospects in the euro area are still uncertain and vulnerable due to relatively high debt and weak domestic demand. Growth in the US rose to 2.3 percent in the first quarter, from 1.8 percent a year earlier. According the US Bureau of Labor Statistics, 217,000 payroll jobs were added in May, keeping the unemployment rate at 6.3 percent, the lowest rate since 2009. Supportive monetary intervention might explain the observed performance even though there is speculation of tapering by the Fed to control monetary-induced inflation. Japan grew strongly in the first quarter, 3.1 percent from 0.4 percent a year earlier. The three pronged "Abenonomics" could put the economy onto a self-sustaining growth path, but whether it will be able to maintain momentum remains to be seen. One of the components of the intervention aims to break decades-long deflation, which accumulates private and business savings and slows domestic demand. The IMF has projected moderate growth in Japan in the 2014–15 fiscal year.

**World Inflation and Exchange Rates**

Inflation rates in developing and developed economies were manageable and, in some rich countries, lower than expected. Inflation in Cambodia increased to 4.5 percent from 1.5 percent a year earlier and in Indonesia to 7.7 percent from 5.3 percent. Japan escaped deflation in the last three quarters. It is hoped that aggressive expansionary fiscal and monetary policies introduced by Prime Minister Abe can break the deflation. Inflation rates were also low in China and other Asian tigers. Inflation in the euro area and the US remained low, indicating that Quantitative Easing II has not had strong effects on overall prices and that tapering should not yet be started.

In the first quarter, the riel appreciated 0.6 percent from a quarter earlier and 0.03 percent from a year earlier against the dollar, to KHR3993.8/USD. The Thai baht depreciated 2.8 percent from a quarter earlier (9.5 percent year on year) against the dollar. The Vietnamese dong remained unchanged from the previous quarter, but depreciated 0.1 percent year-on-year. The Chinese yuan appreciated 2.0 percent year on year. The Japanese yen depreciated 11.3 percent from a year earlier.

**Commodity Prices in World Markets**

In the first quarter, prices of maize rose 5.2 percent from a quarter earlier to USD209.6/tonne, but declined 31.3 percent year on year. Prices of rubber decreased 14.5 percent from a quarter earlier (32.8 percent year on year) to USD2034.7/tonne and of Thai rice 1.1 percent (25.8 percent year on year) to USD450.7/tonne. Prices of soybeans went down 4.6 percent from a year earlier, of crude oil 4.3 percent, gasoline 6.3 percent and diesel 4.8 percent. Overall, world prices of major commodities were trending downward.

Prepared by Roth Vathana, research associate, Economics, Trade and Regional Cooperation Programme, CDRI.

# Economy Watch—External Environment

Table 1: Real GDP Growth of Selected Trading Partners, 2006–14 (percentage increase over previous year)

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Q1 | Q2 | Q3 | Q4 | Q1 |
| Selected ASEAN countries | | | | | | | | | | | | |
| Cambodia | 10.8 | 10.2 | 6.8 | 0.1 | 6.0 | 6.1 | 6.2 | - | - | - | - | - |
| Indonesia | 5.4 | 6.3 | 6.1 | 4.2 | 6.2 | 6.5 | 6.25 | 6.0 | 5.8 | 5.6 | 5.7 | 5.2 |
| Malaysia | 5.9 | 6.3 | 4.6 | -2.4 | 9.0 | 4.9 | 5.43 | 4.1 | 4.3 | 5.0 | 5.1 | 6.2 |
| Singapore | 7.7 | 7.7 | 1.1 | -4.5 | 14.7 | 4.7 | 1.33 | 0.2 | 3.7 | 5.8 | 5.5 | 5.1 |
| Thailand | 4.8 | 4.9 | 2.6 | 3.3 | 7.9 | 0.0 | 6.75 | 5.4 | 2.6 | 2.6 | 0.4 | 3.1 |
| Vietnam | 8.1 | 8.5 | 6.2 | 4.7 | 6.7 | 6.1 | 5.03 | - | - | - | - | - |
| Selected other Asian countries | | | | | | | | | | | | |
| China | 10.5 | 11.9 | 9.0 | 8.2 | 10.4 | 9.3 | 7.75 | 7.7 | 7.5 | 7.8 | 7.7 | 7.1 |
| Hong Kong | 6.6 | 6.4 | 2.4 | -3.2 | 6.9 | 4.9 | 2.90 | 2.8 | 3.3 | 2.9 | 3.0 | 2.5 |
| South Korea | 5 | 4.9 | 2.2 | -1.0 | 6.1 | 3.6 | 2.13 | 1.5 | 2.3 | 3.3 | 4.0 | 4.1 |
| Taiwan | 4.6 | 5.2 | 0.1 | -3.6 | 11.1 | 4.2 | 1.23 | 1.7 | 2.3 | 1.7 | 2.9 | 3.1 |
| Selected industrial countries | | | | | | | | | | | | |
| Euro-12 | 2.7 | 2.9 | 0.9 | -3.8 | 1.6 | 1.6 | -0.48 | 1.1 | -0.7 | -0.4 | 0.5 | 0.9 |
| Japan | 2.1 | 2 | -0.7 | -5.4 | 4.1 | -0.8 | 1.73 | 0.4 | 0.9 | 2.7 | 2.6 | 3.1 |
| United States | 3.3 | 2.2 | 1.1 | -2.5 | 2.7 | 1.8 | 2.10 | 1.8 | 1.4 | 1.6 | 2.5 | 2.3 |

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

Table 2: Inflation Rate of Selected Trading Partners, 2006–14 (percentage price increase over previous year—period averages)

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Q1 | Q2 | Q3 | Q4 | Q1 |
| Selected ASEAN countries | | | | | | | | | | | | |
| Cambodia | 4.7 | 10.5 | 19.7 | -0.5 | 4.1 | 5.5 | 3.0 | 1.5 | 2.2 | 3.8 | 4.3 | 4.5 |
| Indonesia | 13.4 | 6.4 | 10.1 | 4.7 | 5.1 | 5.4 | 4.3 | 5.3 | 5.7 | 8.6 | 8.4 | 7.7 |
| Malaysia | 3.7 | 2.0 | 5.3 | 0.4 | 1.7 | 3.2 | 1.7 | 1.4 | 1.8 | 2.2 | 3.0 | 3.5 |
| Singapore | 1.0 | 2.1 | 6.5 | 0.5 | 2.9 | 5.2 | 4.6 | 3.6 | 1.6 | 1.8 | 2.0 | 1.0 |
| Thailand | 4.7 | 2.2 | 5.5 | -0.9 | 3.1 | 3.8 | 3.0 | 3.1 | 2.3 | 1.7 | 1.7 | 2.0 |
| Vietnam | 7.7 | 8.3 | 23.3 | 7.3 | 9.0 | 18.6 | 9.3 | 6.9 | 6.6 | 7.0 | 5.9 | 4.8 |
| Selected other Asian countries | | | | | | | | | | | | |
| China | 1.5 | 4.8 | 5.9 | -0.8 | 3.2 | 5.4 | 2.7 | 2.4 | 2.4 | 2.8 | 2.9 | 2.1 |
| Hong Kong | 2.2 | 2.0 | 4.3 | -0.3 | 2.4 | 5.3 | 4.1 | 2.2 | 4.0 | 5.3 | 4.3 | 4.1 |
| South Korea | 2.4 | 2.5 | 4.6 | 2.8 | 3.0 | 4.4 | 2.1 | 1.4 | 1.1 | 1.2 | 0.9 | 1.1 |
| Taiwan | 0.6 | 1.8 | 3.2 | -1.1 | 1.0 | 1.4 | 1.9 | 1.8 | 0.8 | 0.0 | 0.5 | 1.1 |
| Selected industrial countries | | | | | | | | | | | | |
| Euro-12 | 2.1 | 2.1 | 3.3 | 0.4 | 1.6 | 2.7 | 2.5 | 1.8 | 1.5 | 1.3 | 0.6 | 0.6 |
| Japan | 0.5 | 0.1 | 1.4 | -1.3 | -0.7 | 0.1 | -0.03 | -0.3 | -0.3 | 0.9 | 1.4 | 1.5 |
| United States | 3.2 | 2.9 | 3.8 | -0.4 | 1.7 | 3.2 | 2.1 | 1.7 | 1.4 | 1.6 | 1.2 | 1.4 |

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

Table 3: Exchange Rates against US Dollar of Selected Trading Partners, 2006–14 (period averages)

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Q1 | Q2 | Q3 | Q4 | Q1 |
| Selected ASEAN countries | | | | | | | | | | | | |
| Cambodia (riel) | 4103.2 | 4062.7 | 4054.2 | 4140.5 | 4187.1 | 4063.6 | 4037.8 | 3995.0 | 4032.9 | 4062.0 | 4018.9 | 3993.8 |
| Indonesia (rupiah) | 9134.0 | 9419.0 | 9699.0 | 10413.8 | 9089.9 | 4374.0 | 9363.0 | 9681.9 | 9783.6 | 10,666.0 | 11,545.1 | 11,765.8 |
| Malaysia (ringgit) | 3.7 | 3.3 | 3.3 | 3.5 | 3.2 | 1.5 | 3.1 | 3.1 | 3.0 | 3.2 | 3.2 | 3.3 |
| Singapore (S$) | 1.59 | 1.51 | 1.4 | 1.5 | 1.4 | 1.3 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 |
| Thailand (baht) | 37.9 | 32.22 | 33.4 | 34.3 | 31.7 | 30.5 | 31.1 | 29.8 | 29.9 | 31.4 | 31.7 | 32.6 |
| Vietnam (dong) | 15,994.0 | 16,030.0 | 16,382.0 | 17,725.2 | 19,200.8 | 20,574.3 | 20,856.9 | 20,829.6 | 20,828.0 | 20,908.7 | 21,036.0 | 21,036.0 |
| Selected other Asian countries | | | | | | | | | | | | |
| China (yuan) | 7.97 | 8.03 | 6.9 | 6.8 | 6.76 | 3.3 | 7.8 | 6.2 | 6.2 | 6.1 | 6.1 | 6.1 |
| Hong Kong (HK$) | 7.77 | 7.8 | 7.8 | 7.8 | 7.77 | 7.8 | 1126.6 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 |
| South Korea (won) | 955 | 929.04 | 1137.2 | 1277.8 | 1156.3 | 1108.6 | 29.6 | 1085.9 | 1123.4 | 1108.8 | 1062.0 | 1069.7 |
| Taiwan (NT$) | 32.5 | 32.85 | 31.5 | 33.0 | 31.3 | 29.4 | | 29.5 | 29.9 | 29.9 | 29.6 | 30.3 |
| Selected industrial countries | | | | | | | | | | | | |
| Euro-12 (euro) | 0.8 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | 79.8 | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 |
| Japan (yen) | 116.4 | 117.8 | 102.5 | 93.6 | 87.8 | 79.9 | 9363.0 | 92.3 | 98.8 | 98.9 | 100.5 | 102.8 |

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

Table 4: Selected Commodity Prices on World Market, 2006–14 (period averages)

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Q1 | Q2 | Q3 | Q4 | Q1 |
| Maize (USNo.2)—USA (USD/tonne) | 111.0 | 149.1 | 218.2 | 167.3 | 167.3 | 291.4 | 296.5 | 305.2 | 291.4 | 246.2 | 199.3 | 209.6 |
| Palm oil—north-west Europe (USD/tonne) | 433.9 | 707.7 | 912.2 | 686.8 | 834.7 | 1125.4 | 999.3 | 852.7 | 850.3 | 827.3 | 897.3 | 911.3 |
| Rubber SMR 5 (USD/tonne) | 1996.3 | 2202.3 | 2586.3 | 1884.8 | 3152.2 | 4630.6 | 3200.7 | 3029.5 | 2497.2 | 2394.6 | 2380.0 | 2034.7 |
| Rice (Thai 100% B)—Bangkok (USD/tonne) | 282.0 | 305.4 | 615.3 | 524.5 | 456.2 | 558.5 | 594.8 | 607.0 | 570.0 | 502.3 | 455.7 | 450.7 |
| Soybeans (US No.1)—USA (USD/tonne) | 213.9 | 294.6 | 460.4 | 414.0 | 375.4 | 507.9 | 566.1 | 558.4 | 569.8 | 545.1 | 514.9 | 533.0 |
| Crude oil—OPEC spot (USD/barrel) | 61.6 | 69.3 | 95.4 | 60.5 | 71.6 | 106.2 | 109.5 | 109.5 | 100.9 | 106.9 | 106.4 | 104.7 |
| Gasoline—US Gulf Coast (cents/litre) | 47.7 | 53.6 | 62.2 | 42.9 | 49.8 | 71.9 | 74.6 | 74.8 | 71.2 | 73.3 | 65.7 | 70.1 |
| Diesel(low sulphur No.2)—US Gulf Coast (cents/litre) | 51.4 | 55.5 | 51.6 | 75.7 | 83.8 | 77.8 | 80.7 | 80.3 | 81.5 | 75.6 | 79.6 | 77.5 |

Sources: Food and Agriculture Organisation and US Energy Information Administration

# Economy Watch—Domestic Performance

**Main Economic Activities**

Fixed asset investment approvals in the first quarter of 2014 rose 95.1 percent from a year earlier to USD426.9 m. The increase came amidst political tensions and continued deadlock after the national election. A majority of the investments were in industry and services, accounting for 41.9 and 51.3 percent of total investment value, respectively. Investments in industry, 61 percent of which were in garments, declined 8.4 percent from a year earlier to USD179 m. Investments in garments decreased by 0.2 percent from a year earlier. It seems that the ongoing demand for a USD160/month minimum wage and the subsequent protests have not significantly affected investors' confidence. The issue, however, needs to be resolved as soon as possible. Investments in services increased to USD219.1 m.

The value of construction approvals went down 21.8 percent from the previous year to USD323.6. Investments in villas and houses dropped 81.3 percent and in flats 6.7 percent. Foreign visitor arrivals rose 8.2 percent year on year, arrivals by air rising 14.4 percent and by land or water 1.4 percent. Investments in hotels and tourism-related activities went up to USD163.3 m. Cambodia might take advantage of the political turmoil and military coup in Thailand and the tensions between Vietnam and China over the South China Sea to attract more tourists.

Exports were still vibrant, rising 25.3 percent from the previous year. Garment exports, which accounted for 74.1 percent of the total, increased 19.5 percent to USD1.5 bn, of which exports to the US went up 0.8 percent and the EU by 34.0 percent. Although garment exports to ASEAN countries accounted for a mere 1.5 percent of the total, they increased 67.7 percent from a year earlier. The rise should signal the government to fast track the efforts to diversify markets to avoid too great a reliance on a few destinations. Diversification could protect the domestic economy from possible external shocks. Exports of agricultural commodities also experienced strong growth in the first quarter, increasing by 34.9 percent from a year earlier. However, exports of rubber declined 13.3 percent and of rice by 12.0 percent. The world price of rubber has continued declining, to USD2034.7/tonne in the first quarter. The rice price followed a similar trend. Agriculture accounted for only 8.4 percent of export values.

Imports increased 2.1 percent from a year earlier to USD2.2 bn; imports of gasoline dropped 1.9 percent while diesel imports rose 6.8 percent.

**Public Finance**

Total revenue in the fourth quarter went up 17.1 percent year on year to KHR2361.2 bn. Current revenue, accounting for 98.1 percent of the total, rose 16.2 percent. Revenue from taxes increased 18.3 percent and non-tax revenues by 6.2 percent. In the same quarter, total government expenditure increased 50.7 percent to KHR4146.4 bn, of which current expenditure accounted for 55.7 percent. Expenditure on wages rose 52.6 percent, while that on subsidies and social assistance declined 11.2 percent. Capital expenditures increased 80.3 percent.

**Inflation and Foreign Exchange Rates**

Inflation has trended upward since 2013, increasing to 4.6 percent in the first quarter of 2014 from 1.5 percent a year earlier. The prices of food and non-alcoholic beverages increased 5.7 percent. The government should be attentive to the rise given its negative impacts on livelihoods, particularly of the poor. Close monitoring of the money supply is also recommended as excessive supply, specifically at the level that exceeds productivity, could induce high prices in the long run.

In the same quarter, the riel was almost unchanged against the US dollar compared to a year earlier, but appreciated against the Thai baht and Vietnamese dong. The price of gold dropped 20.5 percent from a year earlier to USD156.9/chi. Diesel fell 3.2 percent to KHR4971.2/litre and gasoline 4.4 percent to USD5171.5/litre. Decreased world diesel and gasoline prices might partly explain the lower domestic prices.

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**Monetary Developments**

In the fourth quarter, total liquidity has increased by 14.6 percent from a year earlier, money 20 percent and quasi-money 13.6 percent. Net foreign assets rose 17.1 percent from a year earlier, and net domestic assets increased 10.3 percent. Credit to the private sector expanded by 17.3 percent from the previous year. While the increase is good news for private businesses, the growing money supply could have a positive correlation with long-run inflation. Although the overall price level is still manageable, it is also trending upward.

**Poverty Situation**

In May, compared to a year earlier, the real daily earnings of scavengers and ricefield workers plummeted, and those of porters and waitresses fell a lesser amount, while the other six vulnerable groups rose, five of them strongly.

Compared with February, the income of scavengers declined by 4.1 percent, to KHR9198/day. The reason was that the number of scavengers rose, reducing the chance to collect rubbish, according to 95 percent of the interviewees, and the price of rubbish was lower because there were fewer buyers. Ninety-three percent of the respondents were the main income source in the family, but their income was hardly enough to support their families, which averaged five members. Seventy-five percent borrowed for their survival.

The earnings of ricefield workers dramatically decreased, by 35 percent from the previous survey, to KHR5836/day. Though the number of workers was smaller, there were not many jobs available, said 40 percent of respondents. All of the 40 interviewees had less than a hectare of farmland. They collected common resources to support their families. They worked on average 21 days/month and seven hours/day for their lower earnings.

Waiters'/waitresses' earnings dropped by 10 percent, to KHR 6696/day. The number of workers stayed the same, but there was less overtime. Forty percent of them were from Prey Veng province, followed by 23 percent from Kampot. They were allowed to live in the shop and to have three meals per day. Their incomes could not fully support their families or allow them to save for 90 percent of respondents.

On the positive side, the daily earnings of vegetable vendors rose by 11 percent to KHR13,581. This was due to a decline in the number of vendors, some of whom found other occupations or went to other places, according to 85 percent of interviewees. Traders were from Prey Veng (28 percent), Kandal (25 percent) and Svay Rieng (20 percent). They could not commute home but rented a house with an average of three other people. This reduced their rental expense to an average KHR52,000/month. They had no savings because all extra money went to support their families. They would like to have enough capital to diversify the vegetables they sell, according to 83 percent of interviewees.

Skilled construction workers' daily earnings increased by 4.0 percent to KHR15765. There was more work and fewer workers around. Therefore, wages were much more competitive. Though all of the interviewees were from provinces, especially Prey Veng (35 percent) and Kompong Speu (20 percent), they could stay at their worksites, saving on housing expenses. They could not totally support their families without the livestock they raised at home, according to 53 percent of interviewees.

There was a rise of 3.5 percent in porters' daily earnings, to KHR12,568. All the interviewees were from provinces: Svay Rieng (43 percent), Prey Veng (38 percent). They moved to Phnom Penh alone, without any relatives. Eighty-three percent of them rented lodgings with six other persons. They spent around KHR1000/day for rental, accounting for 9 percent of their daily expenditure, while food took 87 percent.

In May, the real incomes of garment workers surged by 19 percent from February, to KHR11,393/day due to more overtime. None of the 120 interviewees had finished grade 5. However, 56 percent went to private training before being employed. They worked at least three months in the factory. Eighty-five percent of respondents could send only some support to their families from their wages. Even so, 51 percent did not want to change jobs. They did not know what else they could do, and they did not have any savings to start a business.

# Economy Watch—Domestic Performance

Table 1: Private Investment Projects Approved, 2006–14*

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 Q1 | Q2 | Q3 | Q4 | 2014 Q1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fixed Assets (USD m) | | | | | | | | | | | |
| Agriculture | 498.0 | 135.6 | 92.0 | 615.0 | 530.68 | 725 | 531.6 | 2.3 | 57.8 | 133.1 | 738.3 | 28.9 |
| Industry | 365.3 | 709.1 | 724.9 | 818.5 | 403.66 | 2860.1 | 829.3 | 195.4 | 1928.3 | 119.5 | 1014.1 | 179.0 |
| *. Garments* | 89.4 | 170.7 | 142.8 | 90.1 | 122.81 | 393.9 | 497 | 109.5 | 76.4 | 65.15 | 73.1 | 109.3 |
| Services | 2939.1 | 1742.5 | 10,003.2 | 4432.0 | 1337.34 | 3425.4 | 916.6 | 21.2 | 106.0 | 5.3 | 8.3 | 219.1 |
| *. Hotels and tourism* | 345.0 | 1048.3 | 8758.1 | 3980.1 | 1105.14 | 2850.9 | 691.5 | 0.0 | 106.0 | 0.0 | 0.0 | 163.3 |
| Total | 3802.4 | 2587.2 | 10,570.9 | 5865.5 | 2271.7 | 7010.42 | 2278 | 218.9 | 2091.1 | 257.9 | 1760.7 | 426.9 |
| | Percentage change from previous quarter | | | | | | | | | | | |
| Total | - | - | - | - | - | - | - | -81.1 | 855.5 | -87.7 | 582.8 | -75.8 |
| | Percentage change from previous year | | | | | | | | | | | |
| Total | 246.6 | -32.0 | 308.6 | -44.5 | -61.3 | 209 | -67.5 | -47.5 | 666.0 | -39.9 | 52.2 | 95.1 |

* Including expansion project approvals. Source: Cambodian Investment Board

Table 2: Value of Construction Project Approvals in Phnom Penh, 2006–14

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 Q1 | Q2 | Q3 | Q4 | 2014 Q1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | USD m | | | | | | | | | | | |
| Villas and houses | 33.1 | 79.1 | 154.7 | 64.3 | 36.2 | 185.5 | 175.2 | 145.2 | 10.3 | 51.6 | 110.2 | 27.1 |
| Flats | 213.3 | 297.2 | 221.6 | 149.6 | 183.8 | 219.6 | 372.1 | 114.1 | 33.0 | 62.7 | 131.9 | 106.5 |
| Other | 76.8 | 259.6 | 740.9 | 227.3 | 269.7 | 199.9 | 463.6 | 154.4 | 238.3 | 336.0 | 130.8 | 190.0 |
| Total | 323.3 | 635.8 | 1117.0 | 441.2 | 489.8 | 605.0 | 1010.9 | 443.7 | 281.6 | 450.3 | 372.9 | 323.6 |
| | Percentage change from previous quarter | | | | | | | | | | | |
| Total | - | - | - | - | - | - | - | 590.9 | -36.5 | 59.9 | -17.2 | -13.2 |
| | Percentage change from previous year | | | | | | | | | | | |
| Total | | 96.7 | 75.7 | -60.5 | 11.0 | 23.5 | 67.1 | 28.1 | -15.6 | 157.5 | 107.6 | -21.8 |

Source: Department of Cadastre and Geography of Phnom Penh municipality

Table 3: Foreign Visitor Arrivals, 2006–14

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 Q1 | Q2 | Q3 | Q4 | 2014 Q1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thousands | | | | | | | | | | | |
| By air | 1026.3 | 1280.2 | 1239.4 | 1111.7 | 1304.3 | 1480.4 | 1722.1 | 611.2 | 398.1 | 428.0 | 580.4 | 699.0 |
| By land and water | 673.0 | 740.5 | 881.9 | 999.7 | 1094.6 | 1401.4 | 1862.2 | 560.9 | 522.5 | 536.6 | 572.5 | 569.0 |
| Total | 1699.3 | 2020.7 | 2121.3 | 2111.5 | 2398.9 | 2881.8 | 3584.3 | 1172.1 | 920.5 | 964.6 | 1153.0 | 1268.0 |
| | Percentage change from previous quarter | | | | | | | | | | | |
| Total | - | - | - | - | - | - | - | 16.4 | -21.5 | 4.8 | 19.5 | 10.0 |
| | Percentage change from previous year | | | | | | | | | | | |
| Total | 20.2 | 18.9 | 5.3 | 0.5 | 13.6 | 20.1 | 24.4 | 17.8 | 20.9 | 17.5 | 14.5 | 8.2 |

Source: Ministry of Tourism

Table 4: Exports and Imports, 2006–14*

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 Q1 | Q2 | Q3 | Q4 | 2014 Q1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | USD m | | | | | | | | | | | |
| Total exports | 2810.9 | 3050.3 | 3097.8 | 2901.6 | 3630.2 | 4929.5 | 6106.4 | 1576.9 | 1620.1 | 1969.9 | 1815.4 | 1976.5 |
| Of which: Garments | 2698.8 | 2938.9 | 2986.2 | 2565.3 | 3223.4 | 4259.6 | 5015.4 | 1225.2 | 1259.0 | 1568.5 | 1333.4 | 1464.0 |
| *. To U S* | 1847.2 | 1956.5 | 1908.3 | 1512.6 | 1853.9 | 2055.3 | 2143.3 | 526.8 | 474.6 | 597.9 | 476.0 | 531.1 |
| *. To EU* | 601.0 | 654.3 | 689.0 | 644.7 | 809.5 | 1322.2 | 1716.9 | 397.5 | 477.5 | 572.8 | 521.9 | 532.7 |
| *. To ASEAN* | 2.6 | 3.2 | 10.76 | 6.9 | 9.9 | 17.6 | 39.4 | 13.0 | 12.7 | 17.4 | 17.2 | 21.9 |
| *. To Japan* | 29.4 | 28.5 | 25.2 | 44.5 | 86.5 | 147.0 | 188.6 | 57.6 | 51.4 | 98.1 | 71.6 | 101.4 |
| *. To rest of the world* | 218.7 | 296.4 | 352.9 | 356.5 | 463.6 | 717.5 | 927.2 | 230.3 | 242.8 | 282.4 | 247.4 | 277.0 |
| Agriculture | 59.7 | 55.7 | 44.5 | 73.1 | 164.9 | 362.1 | 376.7 | 123.8 | 128.9 | 362.4 | 173.0 | 167.0 |
| *. Rubber* | 41.5 | 41.0 | 35.8 | 51.6 | 89.1 | 197.6 | 176.6 | 36.6 | 38.7 | 282.4 | 51.1 | 31.7 |
| *. Wood* | 8.6 | 8.7 | 3.4 | 3.5 | 34.1 | 48.8 | 36.8 | 14.5 | 8.9 | 16.9 | 33.3 | 55.9 |
| *. Fish* | 5.9 | 3.2 | 2.3 | 3.9 | 2.8 | 3.1 | 2.0 | 0.3 | 0.5 | 0.2 | 0.2 | 0.3 |
| *. Rice* | 2.5 | 1.5 | 2.6 | 10.9 | 34.7 | 106.6 | 146.4 | 65.8 | 56.5 | 57.3 | 82.7 | 57.9 |
| *. Other agriculture* | 1.2 | 1.2 | 0.5 | 3.0 | 4.1 | 6.0 | 14.9 | 6.6 | 24.4 | 5.7 | 5.7 | 21.2 |
| *Others* | 52.3 | 55.8 | 67.1 | 263.2 | 242.0 | 307.9 | 714.4 | 274.9 | 232.2 | 272.6 | 308.5 | 345.5 |
| Total imports | 3048 | 3770 | 4272.5 | 4331.5 | 5190.6 | 6375.9 | 8593.3 | 2192.1 | 2211.4 | 2059.7 | 2130.1 | 2238.2 |
| Of which: | | | | | | | | | | | | |
| *. Gasoline* | 49.39 | 73.65 | 84.8 | 91.13 | 108.6 | 294.4 | 308.0 | 1225.2 | 77.2 | 71.3 | 80.5 | 77.4 |
| *. Diesel* | 121.6 | 133.7 | 19.5 | 180.67 | 203.8 | 447 | 559.5 | 526.8 | 137.4 | 150.9 | 132.2 | 148.5 |
| *. Construction materials* | 33.8 | 44.31 | 56.3 | 49.74 | 57.6 | 48.1 | 66.1 | 397.5 | 17.8 | 18.0 | 17.2 | 27.8 |
| *. Other* | 2843 | 3519 | 4011.8 | 4010 | 4820.6 | 5586.4 | 7659.1 | 13.0 | 1979 | 1819.4 | 1899.6 | 1984.5 |
| Trade balance | -237.0 | -719.9 | -1174.7 | -1429.9 | -1560.5 | -1446.4 | -1341.6 | -615.2 | -591.2 | -89.8 | -314.7 | -261.7 |
| | Percentage change from previous quarter | | | | | | | | | | | |
| Total garment exports | - | - | - | - | - | - | - | 7.4 | 2.8 | 24.6 | -15.0 | 9.8 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total exports | - | - | - | - | - | - | - | 8.4 | 2.7 | 21.6 | -7.8 | 8.9 |
| Total imports | - | - | - | - | - | - | - | 13.1 | 0.9 | -6.9 | 3.4 | 5.1 |
| | Percentage change from previous year | | | | | | | | | | | |
| Total garment exports | 19.8 | 8.9 | 1.6 | -14.1 | 25.7 | 32.1 | 17.7 | 14.4 | -14.6 | 18.0 | 16.9 | 19.5 |
| Total exports | 19.5 | 8.5 | 1.6 | -6.3 | 25.1 | 35.8 | 23.9 | 23.2 | -8.8 | 23.4 | 24.8 | 25.3 |
| Total imports | 21.5 | 23.7 | 13.3 | 1.4 | 19.8 | 22.8 | 16.8 | 36.2 | 17.3 | 2.2 | 9.9 | 2.1 |

* 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, 2005–14 (billion riels)

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Q1 | Q2 | Q3 | Q4 |
| Total revenue | 2625.0 | 3259.2 | 1146.1 | 5290.0 | 4885.2 | 5989.0 | 6251.4 | 7691.9 | 1820.2 | 2204.8 | 1868.9 | 2361.2 |
| Current revenue | 2474.0 | 2881.8 | 1141.6 | 5210.7 | 4855.9 | 5859.1 | 6179.3 | 7443.8 | 1817.4 | 2241.3 | 1858.1 | 2316.3 |
| Tax revenue | 1911.0 | 2270.9 | 965.2 | 4409.9 | 4268.0 | 4693.0 | 5277.5 | 6334.8 | 1577.7 | 2024.0 | 1646.0 | 1950.4 |
| Domestic tax | - | - | 661.8 | 3248.4 | 3088.6 | 3533.6 | 4071.6 | 5002.8 | 1254.5 | 1652.9 | 1300.6 | 1520.1 |
| Taxes on international trade | - | - | 303.5 | 1161.5 | 1064.7 | 1159.4 | 1205.9 | 1331.7 | 323.1 | 371.1 | 345.4 | 430.3 |
| Non-tax revenue | 563.0 | 610.9 | 176.4 | 800.8 | 702.1 | 1166.1 | 901.8 | 1118.2 | 239.8 | 217.4 | 212.2 | 365.9 |
| Property income | - | - | 13.6 | 78.0 | 64.6 | 291.1 | 63.8 | 143.0 | 8.4 | 18.1 | 24.3 | 33.2 |
| Sale of goods and services | - | - | 124.3 | 424.7 | 408.0 | 460.1 | 588.7 | 667.4 | 153.3 | 173.3 | 178.8 | 245.0 |
| Other non-tax revenue | - | - | 38.5 | 298.2 | 228.2 | 408.9 | 249.3 | 298.8 | 78.1 | 25.9 | 9.0 | 87.7 |
| Capital revenue | 152.0 | 377.4 | 4.5 | 79.3 | 29.3 | 129.9 | 72.1 | 247.9 | 6.2 | 11.5 | 10.7 | 45.0 |
| Total expenditure | 3295.0 | 4174.7 | 1689.7 | 6297.8 | 7383.5 | 8784.6 | 9032.4 | 9660.9 | 2114.8 | 3181.6 | 3093.0 | 4146.4 |
| Capital expenditure | 1328.0 | 1638.1 | 807.4 | 2574.4 | 2694.9 | 2853.2 | 3546.9 | 3628.3 | 1108.4 | 1273.7 | 1350.6 | 1834.8 |
| Current expenditure | 1967.0 | 2536.8 | 882.3 | 3809.0 | 4440.0 | 4773.1 | 5341.2 | 6188.4 | 1006.4 | 1907.8 | 1742.4 | 2311.6 |
| Wages | 711.0 | 822.0 | 362.6 | 1397.0 | 2012.0 | 2048.8 | 2170.6 | 2486.6 | 505.0 | 757.0 | 827.3 | 908.0 |
| Subsidies and social assistance | - | - | 194.2 | 927.1 | 871.4 | 1099.4 | 1518.8 | 1586.8 | 252.0 | 652.5 | 285.0 | 373.4 |
| Other current expenditure | - | - | 325.5 | 1384.9 | 1556.6 | 1624.8 | 1651.8 | 2115.1 | 249.4 | 498.3 | 630.1 | 1030.2 |
| Overall balance | -670 | -915.5 | -543.6 | -1007.8 | -2498.3 | -2795.7 | -1271.4 | -1969.0 | -294.6 | -976.7 | -1224.1 | -1785.2 |
| Foreign financing | -396.0 | -445.1 | 741.5 | 2055.10 | 1746.1 | 1845.2 | -2781.0 | 2457.8 | 906.0 | 1150.6 | 1032.2 | 1237.4 |
| Domestic financing | - | - | -185.8 | -127.00 | 474.9 | 938.6 | 2379.2 | -332.9 | -470.6 | 270.3 | 113.0 | 65.8 |

Source: MEF website

Table 6: Consumer Price Index, Exchange Rates and Gold Prices (period averages), 2006–14

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Q1 | Q2 | Q3 | Q4 | Q1 |
| (October-December 2006:100) | Consumer price index (percentage change over previous year) | | | | | | | | | | | |
| Phnom Penh | | | | | | | | | | | | |
| - All Items | 4.7 | 5.8 | 19.7 | -0.7 | 4.1 | 5.4 | 2.3 | 1.5 | 2.3 | 3.7 | 4.7 | 4.6 |
| - Food & non-alcoholic bev. | 6.4 | 9.9 | 33.1 | -0.3 | 4.4 | 6.5 | 2.5 | 1.6 | 3.3 | 4.8 | 5.8 | 5.7 |
| - Transportation | 9.1 | 5.8 | 19.4 | -10.7 | 7.0 | 6.9 | 3.3 | -0.7 | -1.0 | -0.1 | -0.4 | -1.1 |
| | Exchange rates, gold and oil prices (Phnom Penh market rates) | | | | | | | | | | | |
| Riels per US dollar | 4119.0 | 4062.7 | 4058.2 | 4140.5 | 4187.1 | 4063.6 | 4039.2 | 3995 | 4033.1 | 4062 | 4059 | 3993.8 |
| Riels per Thai baht | 108.7 | 122.8 | 123.5 | 121.1 | 133.1 | 133.2 | 130.0 | 134.7 | 135.74 | 131.4 | 130.7 | 123.0 |
| Riels per 100 Vietnamese dong | 25.1 | 25.0 | 24.8 | 23.4 | 21.72 | 19.7 | 19.4 | 19.3 | 19.34 | 19.3 | 19.4 | 19.1 |
| Gold (US dollars per chi) | 70.6 | 83.2 | 105.9 | 113.1 | 147.5 | 184.5 | 200.9 | 197.3 | 173.4 | 161.1 | 171.8 | 156.9 |
| Diesel (riels/litre) | 3140.0 | 3262.3 | 4555.2 | 3170.9 | 3859.3 | 4761.2 | 4941.2 | 5134.4 | 4992 | 5022.5 | 4927 | 4971.2 |
| Gasoline (riels/litre) | 4004.0 | 4005.0 | 4750.8 | 3593.1 | 4368.1 | 5044.5 | 5312.7 | 5410.5 | 5274.5 | 5245.2 | 5126.7 | 5171.5 |

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 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | | | | 2014 | | 2013 | 2014 | |
| | | | | Feb | May | Aug | Nov | Feb | May | Nov | Feb | May |
| Cyclo drivers | 9055 | 9532 | 10,303 | 9592 | 10,681 | 10,636 | 10,842 | 10,832 | 10,746 | 3.7 | 12.9 | 0.6 |
| Porters | 9964 | 10,785 | 12,143 | 12,749 | 12,823 | 14,157 | 13,260 | 12,141 | 12,568 | 5.5 | -4.8 | -2.0 |
| Small vegetable sellers | 8266 | 8337 | 10,771 | 9953 | 11,571 | 11,490 | 12,449 | 12,294 | 13,581 | 18.1 | 23.5 | 17.4 |
| Scavengers | 6698 | 8388 | 8680 | 9487 | 10,440 | 9620 | 9732 | 9593 | 9198 | 4.3 | 1.1 | -11.9 |
| Waitresses* | 5607 | 5986 | 6111 | 6529 | 6744 | 6791 | 6723 | 7449 | 6696 | 4.4 | 14.1 | -0.7 |
| Rice-field workers | 5691 | 5695 | 6151 | 5811 | 6427 | 7771 | 6388 | 8932 | 5836 | 27.8 | 53.7 | -9.2 |
| Garment workers | 7746 | 8409 | 8932 | 10,004 | 9776 | 10,420 | 10,442 | 9548 | 11,393 | 16.4 | -4.6 | 16.5 |
| Motorcycle-taxi drivers | 10,623 | 11,568 | 12,930 | 14,433 | 12,522 | 13,656 | 13,189 | 13,227 | 13,378 | 1.1 | -8.4 | 6.8 |
| Unskilled construction workers | 8790 | 10,307 | 11,078 | 12,554 | 13,728 | 13,023 | 13,431 | 15,162 | 15,316 | 18.1 | 20.8 | 11.6 |
| Skilled construction workers | 11,952 | 13,159 | 13,743 | 15,162 | 14,136 | 15,822 | 16,647 | 15,163 | 15,765 | 16.7 | 0.0 | 11.5 |

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

*Continued from page 5* **Engagement Between...**


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## RESEARCH UPDATE

### Democratic Governance and Public Sector Reform (DGPSR)

Between March and June 2014 the Programme finalised five major research studies. The report entitled *D&D Reform and Youth Political Participation* is addressing peer review comments. The draft reports of the projects on *Political Settlement and Inclusive Growth in Cambodia* and *Political Settlement and Health in Cambodia* are undergoing internal and external peer review. The project on the *Cambodian State: How is It Developmental?* which uses the developmental state model to assess the impacts of governance reforms on the state's institutional ability to promote development, is also addressing internal and external peer review comments. The draft working paper on the study *Rights-Based Approach in Action: Determinants and Prospects in Cambodia* is being circulated for additional feedback. The report for the *Endline Study on the Contribution of Arbitration Council Foundation (ACF) Services in Improving Industrial Relations in Cambodia,* a cross-programme collaborative research project, has been drafted and revised in response to external reviewers' comments.

Four new projects have been initiated and are ongoing. The study on *Social Accountability Practices in Cambodia* aims to illustrate the key factors and conditions necessary for achieving successful accountability. The team is in the process of reviewing the literature and designing the research framework and methodology. The project on *Governance and Service Delivery: A Case Study of the Health Sector* is being conceptualised and designed in consultation with stakeholders. The literature review is underway for the study on *Decision-making and Capacity Development for Water Resources and Climate Change Adaptation in Cambodia*. For the *CDRI Special Report on Education in Cambodia,* a joint project involving all five research programmes, the DGPSR team is responsible for drafting the chapter on primary education, and is now finalising the outline, desk review and national-level interviews.

### Economy, Trade and Regional Cooperation (ETRC)

The quarterly *Vulnerable Worker Survey*, monthly *Provincial Price Survey* and monthly *Flash Report* continue to make steady progress.

The study on *Links between Employment and Poverty in Cambodia* has been published as CDRI Working Paper No. 92. A further two studies on the *Pro-poorness of Fiscal Policy* and *Economic Growth, Inequality and Poverty Reduction,* carried out under the Sida-supported five-year research project on *Inclusive Growth,* are being finalised for publishing as working papers. The data processing for the follow-up household survey conducted in March 2014 has been completed, and the team is working on different themes such as poverty, labour, migration and microfinance to provide further insights in respect of the *Inclusive Growth* project.

Having received further comments during the final workshop held on 5–8 May in Bolivia, the report on *Labour Migration in Cambodia: Causes and Impact on Poverty, Inequality and Productivity* has been revised for resubmitting to the Partnership for Economic Policy (PEP). The fieldwork for the study on *Interrelation between Partner Countries' Public Policy, Migration and Development: Case Studies and Policy Recommendations,* funded by the Organisation for Economic Cooperation and Development (OECD), has been completed and data processing is underway. The second round of fieldwork for the *SME Promotion Survey* commissioned by the Japan International Cooperation Agency (JICA), which involved interviewing representatives from 35 (qualitative survey) and 265 (quantitative survey) small and medium enterprises in Battambang, Kampong Cham, Kampong Speu, Siem Reap, Sihanoukville and Svay Rieng provinces, has been completed. The team is now drafting the synthesis report, which will present the findings and implications from both rounds of fieldwork.

ETRC has been commissioned by the World Food Programme (WFP) Country Office to conduct a strategic review of the *World Food Programme Middle Income Country Pilot – Cambodia*.

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

The team has carried out four research projects, two of which are supported by the Swedish International Cooperation Agency (Sida). The report on a project on *Adaptation Capacity of Rural People in the Main Agro-Ecological Zones* has been published as CDRI Working Paper No. 93. The team is now conducting fieldwork in Kompong Chhnang, Kompong Thom, Takeo and Prey Veng provinces for a project on *Agricultural Technology: Practice and Gaps for Climate Change Adaptation.* The fieldwork for the study on *China Goes Global*, a project funded by the Economic and Social Research Council, has been completed; the next step is to analyse the data collected and then to write up and share the results.

Having received comments from the advisor, the first working paper for the project on *Climate Change and Water Governance in Cambodia,* funded by the International Development Research Centre (IDRC) of Canada, is being finalised. The Mini Study 2 team has set up a model, and training in applying it, for assessing catchment hydrology. Fieldwork to collect data is being carried out in three catchments in Kompong Chhnang, Pursat and Kompong Thom provinces. The team working on Mini Study 3 has completed the literature review and is organising and preparing the information before commencing the fieldwork. Under the capacity-building component, 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. Besides undertaking course work, the students are conceptualising the research design and methodology for their own research topics.

The Programme, jointly with several partners, has submitted five proposals to prospective donors on a range of topics: *Supporting the Development of Cambodia's Timber Legality Assurance System* to the EU-FAO Forest Law Enforcement, Governance and Trade (FLEGT) programme; *SERVIR Mekong*[1] to USAID; *Hydropower in the Lower Mekong Basin: Networking, Problem Identification and Knowledge Sharing* to GIZ, the German Society for International Cooperation; *Follow up Study on the 2011 Nationwide Knowledge, Attitude, and Practice Study on Climate Change in Cambodia (KAP2)* to the Cambodia Climate Change Alliance (CCCA) of the Ministry of Environment; and *Bridging Universal and Contextual Approaches to Sustainability Education* (CDRI joins as a collaborator) to Nangyang Technology University (NTU), Singapore. Another proposal on *Waste Management in Floating Villages on the Tonle Sap Great Lake,* being developed jointly with the Tonle Sap Authority, will be submitted to the Japan Grant Programme later this year.

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

PARD has been working on ten projects; four of them are joint projects with SD, ETRC, DGPSR and the Gender Working Group. As part of the project on *Developing Agricultural Policies for Rice-based Farming Systems in Cambodia and Laos,* funded by the Australian Centre for International Agricultural Research (ACIAR), the team presented key findings on the policy challenges facing Cambodia's rice sector at the Policy Dialogue on Rice Futures: Rice Based Farming Systems Research in the Mekong Region, organised by ACIAR Head Office and held in Phnom Penh on 7–9 May. The second draft report on the *Impact of Contract Farming on Smallholder Livelihoods*, a Sida-funded project, is close to completion. The report of the Sida-funded *Study on Farm Mechanisation and Agricultural Labour Market Trends* remains on hold, with deadline extended to December 2014. The first draft report for a WFP-financed project on the *Design of Evaluative Framework and Overseeing of a Baseline and Endline Survey for Productive Assets and Livelihood Support (PALS)* has been completed, and the report for the *Baseline Survey for the McGovern-Dole School Feeding and Take-Home Ration Project in Cambodia* has been finalised and submitted to the WFP. The second draft report on *Horizontal Replication Survey for Horticulture, Rice and Aquaculture,* a USAID/ Fintrac-supported project, has been submitted.

Reports on the cross-programme collaborative research projects—*ReBUILD,* led by SD; *Labour*

[1] Earth Observations Serving Society: SERVIR is a collaborative venture among the NASA Earth Science Division Applied Sciences Program, USAID, and worldwide partner institutions. SERVIR improves environmental management and climate change response by helping governments and other stakeholders integrate Earth observation and geospatial technologies into decision-making (https://www.servirglobal.net/).

*Migration in Cambodia,* led by ETRC; and the *Endline Study on the Contribution of the Arbitration Council Foundation (ACF) Services in Improving Industrial Relations in Cambodia,* led by DGPSR—are recorded in the respective programme updates.

**Social Development (SD)**

Four major projects are in progress. For the three components of the DFID-funded *ReBUILD* project —Health Financing, Health Human Resources and Health Contracting—the task of coding data and identifying themes has been completed and the first draft reports are being prepared. The *Child Labour Study*, which encompasses four subprojects to be conducted over two years, is waiting for comments and feedback from external reviewers on the draft reports on Child Domestic Work, and The Impact of Adult Migration on Child Labour. Meanwhile, work on a third subproject—Landlessness and Child Labour—has started. 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, ending in 2016. The study team for *ReBUILD II,* also funded by DFID, has finished pilot testing the questionnaire and eliminated potential transcript errors, and is now preparing for the fieldwork that will take place in August. The study on *The Impact of CARF-funded Projects,* a work commissioned by ACIAR, was completed.

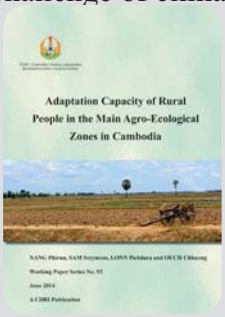
The Programme prepared and submitted to prospective partners several proposals including on *Contracting Service of Health Sector in Cambodia – What Works?* to the World Health Organisation (WHO), *Operational Research on Consumers' Perceptions towards Implants as a Long-term Family Planning Method* to the United Nations Population Fund (UNFPA), and *Health Equity Funds Utilisation Survey* submitted to the World Bank.

As part of the continuous process of systematically integrating gender considerations into development research, and to embed gender awareness within all aspects of research and operations activities, CDRI has commissioned a gender consultant. The consultancy will last from 1 June to 30 August 2014 with the specific tasks of reviewing CDRI's Strategic Plan, Research Strategy and existing Gender Plan; reviewing Cambodia's policy on gender and identifying policy priorities on gender (policy analysis); identifying gender research gaps (or proposed research themes on gender) for CDRI's five research programmes for next five years; conducting a gender organisational assessment to identify research capacity building needs among CDRI research staff; and developing a corresponding gender capacity building plan/ framework. In terms of deliverables, the consultant will produce an up-to-date CDRI Gender Plan with associated amendments to CDRI's Strategic Plan and Research Strategy, and a Gender Capacity Building Framework for CDRI researchers.

**NEW FROM CDRI**

**Adaptation Capacity of Rural People in the Main Agro-Ecological Zones in Cambodia**

There is a growing need for vulnerability and adaptation assessment in the wake of today's challenge of climate change. The study sought to gain a better understanding of how farmers across Cambodia's four main agro-ecological regions are coping with increasingly irregular climate/weather conditions. The paper examines the implications of climate change and its impacts on natural resources and rural livelihoods, and assesses current adaptive capacities and climate adaptation strategies to identify measures to build local communities' capabilities to manage existing risks and potential hazards. The paper concludes that there is need for initiatives that enhance household assets including access to institutions and entitlement, disseminate knowledge and information, foster local innovation and participatory decision making, and promote forward-looking, flexible governance. All of these elements are critical to building the adaptive capacity of farmers, their households, and rural communities.




*WP 93 in English, 60 p. 2014: $2.00*

*http://www.cdri.org.kh/webdata/download/wp/wp93e*

# ANNOUNCEMENT

## CDRI Leadership Transition September 2014

The Chair of CDRI's Board of Directors, H.E. Dr Sok Siphana, has announced that, after a competitive international recruitment process, Dr Chhem Kieth Rethy has been appointed by the Board as the successor to Larry Strange as Executive Director of CDRI from 1 September 2014. Larry Strange, who will step down from the position after more than 10 years, will continue in the role of a Senior Advisor to CDRI to provide support on some specific policy issues and programmes.

Dr Chhem will return to Cambodia from his current position as Director, Division of Human Health, Department of Nuclear Sciences and Applications, International Atomic Energy Agency (IAEA) in Vienna. Educated in Cambodia, Canada, France and the USA, Dr Chhem has doctorates in history and education, and a medical degree. He has had a long and successful professional career in health and education, along with academic appointments in various countries including Canada, Singapore and Japan.

In making the announcement, H.E. Dr Sok Siphana, who chaired the selection committee of the Board, said, "The selection committee of CDRI's Board has chosen Dr Chhem from a very strong international field to take CDRI forward in its next stage of development, building on the solid foundations laid by both his predecessors, Eva Mysliwiec and Larry Strange. We are particularly pleased that his appointment achieves the 'Cambodianisation' of the CDRI leadership we have been working towards over the past decade. His strong background in health and education, two major development priorities for Cambodia, and his international experience and networks, will be great assets for CDRI."

Larry Strange, the outgoing Executive Director, said of the appointment: "After more than 10 years in this challenging and very rewarding role, I am delighted to be passing on the leadership of CDRI to Dr Chhem Kieth Rethy, whose qualifications, background and deep commitment to contributing to Cambodia's development, equip him so well for this role. It has always been my hope to be succeeded by an eminent suitably qualified Cambodian and I am very pleased that CDRI's Board has made this appointment. I look forward to working with him, the CDRI Board and my colleagues, as a Senior Advisor to CDRI, to ensure a smooth and effective leadership transition."

*A Publication of CDRI—Cambodia's leading independent development policy research institute*

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