



# CAMBODIA TOMORROW: DEVELOPMENT RESEARCH PRIORITIES FOR A MIDDLE INCOME COUNTRY - A SYNTHESIS OF THE THEMES AND MESSAGES FROM THE 2013 DEVELOPMENT RESEARCH FORUM SYMPOSIUM

By  
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## 1. Introduction

For the last 20 years, Cambodia's annual growth rate has averaged around 7.7 percent. The country is now on the verge of graduating from low-income to lower-middle income status. As Cambodia traverses its middle-income journey over the next two decades, it will be important to ensure that the momentum of past growth is maintained. For that, the country will have to manage the many development challenges that typically plague middle-income countries. Unless properly addressed, such challenges can leave countries stagnating at middle-income level and failing to graduate into the ranks of high income – the so called “middle income trap”. Against this background, the Cambodia Development Research Forum (DRF) held its annual Symposium on 16-17 October 2013 in Phnom Penh on the subject “Cambodia Tomorrow: Development Research Priorities for a Middle-Income Country”.

The DRF is a partnership of leading academic, research, and policy institutions in Cambodia. The members of the Forum are the Cambodia Development Resource Institute (CDRI), the Cambodian Economic Association (CEA), The Learning Institute (LI), the National Institute of Public Health (NIPH), the Royal University of Agriculture (RUA), the Royal University of Phnom Penh (RUPP), and the Supreme National Economic Council (SNEC). The main objectives of the DRF are to:

- promote high quality research in economic, social, and environmental issues
- provide opportunities for researchers and research institutions for collaborative thinking and leadership
- help strengthen the links between development research and development policymaking and implementation
- communicate and disseminate research results to a wider audience
- encourage graduates to participate in the Forum's Annual Symposium and other events, and present their research findings.

CDRI is the institution that coordinates the work of the Forum. The International Development Research Centre (IDRC) of Canada funds the activities of the Forum.

The Annual Symposium gives an opportunity to emerging and young Cambodian researchers, academics, government officials, as well as representatives of non-governmental and private sector organisations, to discuss and debate major development issues relevant to Cambodia. More than 200 participants attend the Annual Symposium. The key objective of the 2013 Symposium was to share knowledge and research products among academics, researchers and policymakers, and identify the research priorities and policy options that can help the country to avoid the middle-income trap. It is hoped that this knowledge sharing exercise will help to strengthen the country's capacity to do policy-relevant development research.<sup>1</sup>

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<sup>1</sup> H.E. Dr Mey Kalyan, Chair of DRF II Steering Committee: “Welcome Remarks”



*The Annual Symposium gives an opportunity to emerging and young Cambodian researchers, academics, government officials, as well as representatives of non-governmental and private sector organisations, to debate major development issues relevant to Cambodia. It took place in Phnom Penh, October 2013.*

The objective of this synthesis report is to provide a summary of the key messages from the more than 30 research papers presented at the Symposium. The report is organised as follows. Section 2 gives an overview of the keynote addresses. The subsequent sections present the key messages from the Symposium under six thematic areas reflecting the topics of the DRF's Research Interest Groups – Cambodia and its region (Section 3), growth and inclusiveness (Section 4), agriculture and rural development (Section 5), natural resources, climate change and the environment (Section 6), education (Section 7), and health (Section 8). Section 9 provides the conclusions.

## **2. Middle-Income Trap: What does it Mean for Cambodia?**

In their keynote addresses to the Symposium, Enrique Aldaz-Caroll and HE Dr Ing Kantha Phavi, Minister of Women's Affairs, attempted to answer the above question.<sup>2</sup> Many poor countries in the past have achieved strong and sustained growth

and graduated from low-income to middle-income status (largely by exploiting their low-cost labour and/or abundant natural resource endowments), but have stagnated afterwards. This is what is now generally referred to as the middle-income trap – a situation where even after successfully getting out of the poverty trap, countries are unable to graduate to high-income status. The keynote speakers highlighted the fact that countries that have avoided the middle-income trap have generally focused on four ingredients crucial to sustaining growth over the long haul – infrastructure (roads, railways, sea/river/lake ports, airports, electricity and communications), education and skills acquisition, healthcare provision, and women's empowerment.

As incomes rise, so do costs. To have continued strong growth, therefore, countries need to innovate so that they can use both capital and labour more productively. Robust infrastructure facilities and healthy and educated populations are the key for stepping up productivity. At the same time, gender equality and women's empowerment lead to much higher female labour force participation rates, enabling countries to keep costs down and increase productivity. By focusing on these four major elements,

<sup>2</sup> Enrique Aldaz-Caroll, Senior Country Economist, World Bank, keynote address: "Middle-Income Country – Middle-Income Trap: What Does It Mean for Cambodia?" HE Dr Ing Kantha Phavi, Minister of Women's Affairs, RGC, keynote address: "Cambodia Tomorrow: Development Research Priorities for a Middle-Income Country (MIC)"

countries are able to modernise their agriculture, diversify their industrial and service sectors and, importantly, avoid the middle-income trap.

Cambodia has made huge strides in building infrastructure in the last two decades or so. However, the country's electrification rate is one of the lowest and its electricity cost one of the highest in the region. Ports and transport facilities are also inadequate. For example, the current port capacity is not enough to support any significant expansion of trade. Although Cambodia is currently rehabilitating and modernising its rail system linking Phnom Penh to its borders with Thailand and Vietnam, the country's railway capacity is far from adequate to facilitate rapid economic growth. Average communication costs are also high by regional standards. For the country to leverage its ideal location in the dynamic Greater Mekong Subregion for growth, development and prosperity, it will have to make concerted efforts to build infrastructure.

A middle-income country needs an educated and skilled labour force to enable sustained economic growth over the long term. Cambodia's first generation education reforms have been successful in getting children to school (improved school enrolment rates). The major challenge now is to make them want to stay there (reduce dropout rates) and learn the kinds of skills that will be increasingly demanded by a middle-income country. Thus, the quality of education will have to be given as much importance as its quantity. That will require a set of second-generation reforms with a primary focus on improving the quality of education. Since formal higher education is likely to take time to yield such results, technical and vocational education and training (TVET) could play a key role in building the skills of the country's youth over the medium term.

As in the case of education, Cambodia has made notable progress in improving the health of its people over the past couple of decades. The first-generation health sector reforms have focused mainly on universal access to basic healthcare facilities. In the future, the country will need to pay much more attention to improving the quality of healthcare. Policy options available to bring about such second-generation healthcare reforms need to be carefully considered and acted upon

expeditiously. Within the healthcare system, areas that will need special attention in the coming years are maternal and child health, and communicable diseases such as tuberculosis.

The female labour participation rate in Cambodia is about 79 percent, compared with 87 percent for males. There is thus some scope for further increasing women's participation in the labour force. Another gender gap that warrants special mention is the disproportionate number of women in vulnerable employment. In Cambodia, informal and vulnerable employment accounts for about 70 percent of the total employment; at about 73 percent, women's participation rate in vulnerable work is higher than men's at 64 percent. This implies that three out of every four employed women are engaged in vulnerable jobs. Factors that compel such a gender gap in employment range from women's lower educational attainments to social and cultural norms that discourage women's empowerment. However, gender gaps in education have closed considerably in the last twenty years. Building on this achievement, the country should make continued efforts to support the empowerment of women.

Overall, moving from a poor, traditional to a modern, middle-income economy places greater demands on governments. Citizens' expectations of basic services and greater enforcement of the rule of law increase as the country moves ahead on the development path. Mobilisation of additional revenues on the one hand and a more efficient public spending regime on the other are key for meeting the increased citizen expectations. Achieving these invariably depends on how successfully a country can modernise its development institutions and governance regime.

### **3. Cambodia and Its Region**

#### **3.1. Democratising ASEAN**

ASEAN will achieve a major milestone in 2015 – the launching of the ASEAN Economic Community (AEC). Following closely on the heels of the AEC, the region will also see the formation of another ASEAN Community that will also consist of an ASEAN Political-Security Community and an ASEAN Socio-cultural Community. Against the backdrop of these major milestones, Leng

posed an important, albeit controversial question: Should ASEAN be democratised?<sup>3</sup> Examining the pros and cons surrounding this rather complex issue, Leng suggests that ASEAN should be democratised. He argues that democratisation will help ASEAN to cement a common regional identity, protect against the threat of being absorbed by China or East Asia, and effectively respond to potentially new political and security threats. On a final note, Leng cautioned that the inability to democratise will divide ASEAN, make it lose its relevance and the much talked about “centrality” to Asian integration, and above all, stop it from becoming a truly people-centred community.

### 3.2. Labour Migration in the Greater Mekong Subregion (GMS)

Cambodia is situated in the dynamic GMS, which in recent years has witnessed increasing intraregional labour migration. Within the GMS, Thailand – with an ageing population and a more developed economy – attracts inward migration from Cambodia, Laos, Myanmar and Vietnam (CLMV). Hing argued that labour migration within the GMS is likely to grow, and national and regional policies and institutional frameworks will need to be put in place to allow a freer but well managed flow of labour across the GMS countries.<sup>4</sup> These policy responses should, however, be developed within the more general framework of labour movement that will be allowed under the AEC from 2015. Hing suggested that Cambodia has the potential to leverage labour migration for its overall development in various ways. For example, over the medium term Cambodia could import skilled labour from both GMS and ASEAN countries to temporarily bridge its skills gap. With appropriate policy and institutional arrangements in place to transfer imported skills to the domestic labour force, such a policy could over the long-term help the country to develop adequate domestic skills. At the same time, Cambodia should push for more comprehensive regional cooperation arrangements within the GMS to allow for freer

<sup>3</sup> Leng Thearith, Research Fellow, CICP, and Lecturer, DIS-IFL: “Why ASEAN Needs to Be a People-Centered Community”

<sup>4</sup> HingVutha, Research Fellow, CDRI: “Labour Migration in the GMS and ASEAN: What Does It Mean for Cambodia?”

but transparently managed labour movement across the region.

### 3.3. Japanese and Chinese Aid to Cambodia

In terms of total foreign aid to Cambodia, Japan and China – the two largest economies in Asia – have both played an important role. Uy examined an interesting issue: Whose aid – Japanese or Chinese – is more relevant to Cambodia?<sup>5</sup> Relevance is explored from two key angles – alignment of aid with the needs and development strategy of Cambodia on the one hand, and the political implications for Cambodia in terms of the host country’s foreign policy on the other. Evaluating the aid policies of Japan and China, Uy argued that both Japanese and Chinese aid flows to Cambodia were aligned with the development needs of the country. Japanese aid has been mostly directed towards social sectors (health and education), governance reforms and democratisation initiatives, while Chinese aid has been directed mostly to the transport sector. From the political perspective, Japanese aid has generally been guided by Japan’s overall interest in the ASEAN region. Chinese aid, on the other hand, has been guided by China’s interest in forging closer ties with the GMS countries and also to gain access to natural resources and the port facilities of Sihanoukville Port and the Ream Naval Base of the Royal Government of Cambodia, also near Sihanoukville, on the Gulf of Thailand. On balance, it appears that both Japanese and Chinese aid play a key role in the development of Cambodia, even as the two countries have somewhat different geopolitical motives behind their aid.

## 4. Growth and Inclusiveness

### 4.1. Foreign Private Capital and the Economy

Traditionally, capital flows to Cambodia have taken the form of external aid. However, the share of external aid in total capital flows has fallen in recent years and that of foreign direct investment and private financial flows has risen. With the expected further decline in external aid, this trend is likely to continue in the future. Sok looked at micro-level empirical evidence on the effect of

<sup>5</sup> Uy Ratheany, Graduate, Department of International Studies, RUPP: “Cambodia between Japan and China: Whose Aid is More Relevant to Cambodia?”

private capital flows on the Cambodian economy.<sup>6</sup> His main conclusion was that foreign capital flows have produced a variety of favourable outcomes, including through fostering sustained growth and development and making growth more inclusive. That said, it is well known that the private capital flows – whether foreign direct investment or financial – carry macro-financial risks. They are associated with an increase in macroeconomic volatility. These risks need to be monitored, managed and minimised. Thus more research and studies on the effect of private capital flows on the Cambodian economy are called for.

#### 4.2. Domestic Credit and Macro-financial Stability

In addition to the increasing flows of volatile foreign capital, another trend that has the potential to cause sudden macro-financial instability in Cambodia is the recent rapid growth of bank credit. While it is difficult to say whether this sudden credit growth is excessive and could have a destabilising effect on the economy, it is suggested that greater vigilance is required in monitoring credit growth and its sectoral composition. This was the key message from Heng's analysis of the recent credit growth and its possible impacts on the Cambodian economy.<sup>7</sup> Continual monitoring of credit growth would help to keep a tab on the build-up of systemic risks and immediate danger posed by the consequences of a burst credit bubble. It could then help policymakers to take timely corrective measures that would avert the risk of financial crisis. Over the long run, Cambodia should focus on sustainable financial deepening. That, in turn, would require macro-economic policymaking and interventions to minimise the potential macro-financial risks of financial deepening by strengthening the oversight and regulation of the financial sector and building better institutional framework for financial market regulation

#### 4.3. Labour Markets

With about 60 percent of Cambodia's labour force still employed in agriculture, there is substantial surplus labour in the rural areas. As a country moves further up the development ladder, rural

<sup>6</sup> Sok Kha, CEA: "Foreign Capital in the Cambodian Economy"

<sup>7</sup> Heng Dyna, CEA: "Banking in Cambodia: Is Credit Growth Excessive?"

surplus labour gradually moves to urban areas to meet the growing demands for labour from the industrial and services sectors. In the process, rural labour markets tighten and rural wages start to rise significantly. In the development literature, such a shift in rural labour markets is often referred to as the "Lewis Turning Point", paraphrasing the hypothesis postulated by the development economist and 1979 Nobel Laureate, Sir William Arthur Lewis. Using national household survey data, Cheng and Heng found that rural wages in Cambodia have risen substantially since 2011, indicating that some rural areas are showing signs of labour market tightening, even as the country as a whole has substantial surplus rural labour.<sup>8</sup> These first signs of tightening imply that Cambodia's agricultural transformation and rural development in the coming years will need to be based on investing in more mechanisation to improve farm productivity. More interdisciplinary research is needed to look at the options for appropriate mechanisation policies and strategies in agriculture and faster development of the rural economy.

#### 4.4. Tariffs and Welfare

In the last decade and a half, Cambodia has lowered its customs tariffs considerably. Joining the World Trade Organization (WTO) in 2004 hastened the process of tariff reduction. As a result, Cambodia has one of the most open foreign trade regimes among the developing countries. Senh, using a general equilibrium model calibrated to Cambodia's social accounting matrix, examined the welfare gains from these tariff reductions and the country's open trading regime.<sup>9</sup> His key finding is that while the country as a whole has had modest welfare gains from the tariff reductions, they have had differential impacts on urban and rural communities. While urban Cambodia gained from tariff reductions, rural areas experienced some welfare loss. Moreover, although Phnom Penh residents gained more than the rural population, within Phnom Penh the richer segments of the population gained much more than their poorer

<sup>8</sup> Dr Cheng Savuth and Heng Dyna, CEA: "Labour Market in Cambodia: Has Cambodia Passed the Lewis Turning Point?"

<sup>9</sup> Senh Senghor, CEA: "Welfare of Tariff Reduction in Cambodia: Policy Implications to Protect Rural Poor Households"

counterparts. Senh suggested that the government could compensate for losses of customs revenue by increasing domestic value added tax (VAT). It could then use that additional VAT revenue to finance agricultural and rural development, and to support public services to build the human assets of the poor (such as education and health) that would help to bridge the inequality gap.

## 5. Agriculture and Rural Development

### 5.1. Multi-purpose Farming

Using arable land for multiple crops in a year – multi-purpose farming (MPF), as opposed to mono-cropping – is an option for using land more productively and contributing to food security. Accordingly, the Ministry of Agriculture has a strategy to promote MPF through an integrated (agro-ecological) farming system that combines several production components – rice, livestock and fish. Tong evaluated the potential contribution that MPF could make to the food security of smallholder farmers in Cambodia.<sup>10</sup> Her main message is that the gains from MPF are substantial on the lowland plains but much less significant in the upland areas. Her analysis showed that several factors constrain farmers from adopting MPF, in particular lack of know-how, small landholdings, and inadequate capital for upfront investment. Examining ways and means of addressing these constraints to encourage more farmers to adopt MPF are areas for further research.

### 5.2. Fertiliser and Agriculture

The fertiliser market in Cambodia is evolving rapidly to meet farmers' demands. It is a free market, led by a competitive private sector with prices determined by market forces. There is no protectionism policy to "favour" local fertiliser production plants; the government promotes a free market, allowing fertiliser suppliers to compete in quality and prices at all levels along the supply chains. Fertiliser supply has increased rapidly in response to the rising demand. Future gains in crop production are expected to come mostly from increased yields, and fertiliser will play a key role in that. Analysing the constraints on the effective functioning of the country's fertiliser

<sup>10</sup> Tong Chantheang, CEDAC: "Evaluation of How Multi-Purpose Farming (MPF) Impacts on the Food Security of Small Land-Holding Farmers in Cambodia"

market, Theng suggested three sets of reforms: (i) simplifying import licensing procedures and regulations, (ii) removing tonnage restrictions and allowing importers to import unlimited amounts of suitable registered products based on market risk assessment; and (iii) expanding scientific research and public extension services through increased public spending to improve the efficient, effective and sustainable use of fertiliser.<sup>11</sup> These measures should go a long way towards increasing the productivity of farmland, especially since both the intensity and efficiency of fertiliser use in Cambodian agriculture is much lower than that of many of its neighbouring countries. Looking ahead, research needs to focus on the best ways in which policymakers can meet the challenge of easing the constraints on fertiliser use and affordability as a way of stimulating productivity increases in Cambodian agriculture.

### 5.3. Fruits and Vegetables

The cultivated fruit and vegetable subsector has significant potential to improve nutrition and livelihoods, reduce food insecurity, and alleviate poverty in the country; however, a number of factors constrain the subsector from realising these potentially beneficial effects. This was the key message of the paper from Buntong and Kong.<sup>12</sup> In terms of production and yield, the key constraints are poor quality seed, the unsuitability of the climate and soils for fruit and vegetable production, small and widely dispersed agricultural holdings, poor irrigation systems including the use of contaminated water, and improper application of agricultural inputs by farmers particularly imported fertilisers and pesticides that often lack labels in local languages. Even without these constraints on production, fruit and vegetable farmers suffer greatly from extremely high post-harvest losses; a considerable amount – about 20-35 percent – of the fruits and vegetables produced is lost after harvest due largely to improper handling and exposure to high temperatures during storage and transportation. The quality

<sup>11</sup> Dr Theng Vuthy, Programme Coordinator, CDRI: "Development of Fertiliser Industry in Cambodia: Role of Fertiliser in Transforming Agricultural Economy – Challenges and Opportunities"

<sup>12</sup> Dr Buntong Borarin, Head of Postharvest Department, and Assoc Prof Kong Thong, Faculty of Agro-Industry, RUA: "Towards Safety and Quality Management of Fruits and Vegetables in Cambodia: Challenges and Opportunities"

and safety of fruits and vegetables are also a major problem, as they not only affect the prospects for exports but also affect the health of domestic consumers. Another constraint that makes fruit and vegetable farmers' participation in the market costly and risky is the lack of market information on prices, quality and safety standards. In view of these constraints, future research in this area needs to look at options for improving the quality and safety of Cambodia's fruit and vegetable crops. Ways and means of reducing post-harvest losses should also be explored to provide simple and cost-effective technological solutions.

#### 5.4. Livestock and the Economy

Livestock farming accounts for about 13 percent of Cambodia's agricultural production and plays an important role in the rural economy. It supports the livelihoods of many poor rural households, and provides a local supply of food and nutrition. The majority of livestock producers are smallholders, primarily keeping pigs and poultry. Sar identified the main emerging constraints on livestock productivity as lack of veterinary services, inadequate legal documents, and the absence of public-private partnership.<sup>13</sup> The government is now in the process of drafting a law on animal health that will specify hygiene and safety standards for livestock farming so that the risks of animal diseases and the consequent harmful effects on consumers are minimised. More applied research on livestock production and its constraints is needed in future.

## 6. Climate Change, Natural Resources and the Environment

### 6.1. Climate Change, Rainfall and Floods

Historically, Cambodia is used to receiving high rainfall twice a year, in May-June and September-October. But in more recent years, rainfall has become more heavily concentrated in September-October, with much less in May-June. This shift from a bi-modal to a mono-modal distribution of rainfall (perhaps the initial signs of climate change-related alterations in rainfall pattern) has caused excessive rain in recent years and the consequent devastating floods in the months of September

<sup>13</sup> Dr Sar Chetra, Department of Animal Production and Health, RUA: "Livestock Development in Cambodia: Challenges and Opportunities"

and October. Based on an analysis of the historical rainfall data for the period 1920-2012 in the Sangkae River Catchment area in Battambang province, these were the main messages of the paper by Doch.<sup>14</sup> She argued that more research needs to be conducted on the technical support that farmers need to be able to cope with the effects of climate change; identifying techniques that would enable farmers to grow crops before the flooding season is one such area.

### 6.2. Community-based Assets and Vulnerabilities to Climate Change

Community-based assets constitute an important source of livelihood for people in several parts of rural Cambodia. Phin measured the overall community-based assets and the livelihood index of people living in Takeo province for the year 2010.<sup>15</sup> His measures indicate that people in Takeo province have a moderate community asset index, showing that the asset base within the province has improved. He also showed that the livelihood index in the province is robust – an indication that the people are able to use the community assets for generating livelihoods. Phin also looked at the relationship between the community asset index, and climate change vulnerability and adaptability in Kratie province. His findings show that since the community asset index is moderate in Kratie province, people's capabilities to adapt to climate change are low. In other words, people in Kratie province seem to be highly vulnerable to the effects of climate change and exposure to natural disasters. These results highlight the need to strengthen rural households' adaptive capacity and adaptation strategies to cope with the effects of climate change and to prepare for natural disasters.

### 6.3. Land Use and Food Security

Since the early 2000s, the conversion of traditional food crop farming to more commercial crops such as pine and rubber tree plantations has transformed the rural landscape. This trend has been most marked in Modulkiri province. Such

<sup>14</sup> Doch Sotheavin, LI: "Looking at Vulnerability of Agricultural Production to Flood: A multi-level approach in Sangkae River Catchment, Battambang Province, Cambodia"

<sup>15</sup> Dr Phin Sopheap, Forestry Administration, MAFF: "Community Assets for Agricultural Development in Cambodia"

a shift in land-use is generally associated with significant changes in the livelihoods of local people, often threatening the food security of the poorer segments of the local population. Hak *et al.* compared how household livelihood strategies have changed since 2003 as a result of land-use change in Dak Dak and Srae Preah communes of Mondulakiri province.<sup>16</sup> The study employed a mixed methods approach: household surveys, key informant interviews, participatory rural assessments and secondary data sources. Over the past nine years, the inward-orientation of household subsistence strategies, i.e. reliance on forest resources, began to turn outward as households started to produce cash crops for the market. Their key finding is that the changes in farmer production objectives and concomitant land-use conversion to cash crops in the two communes spurred robust economic growth and poverty reduction but at the cost of exacerbating inequality and loss of forest cover. As policymakers encourage the adoption and expansion of cash crops to augment economic growth, they should try to minimise the adverse side-effects of land-use change; one way to do that would be to foster local initiative and community participation in making local land-use decisions.

#### 6.4. *Tourism, Natural Resources and Carbon Footprint*

Tourism is identified as one of the priority sectors in the government's Rectangular Strategy Phase II and recognised as a key sector that could contribute significantly to socioeconomic development through job creation, income generation, poverty alleviation and green growth. However, as Lonm pointed out, rapid growth of the tourism industry, unless properly regulated, could also pose serious environmental and social challenges to natural resource management and the management of greenhouse gas emissions.<sup>17</sup> International and domestic tourists, numbers of hotels and resorts, air flights and other related tourism services, to name a few, which are growing rapidly, will consume a lot more energy and natural resources

(especially fossil fuels, water, food and land). These side-effects of Cambodia's growing tourism industry – increased natural resource depletion and an enlarged carbon footprint – need to be managed well, otherwise the industry will risk undermining its own sustainability. Green hotels, renewable energy usage particularly solar power, diversification of tourism sites, better regulatory control, and, above all, an integrated strategy to promote environmentally-friendly tourism industry development, are required for sustaining tourism growth. Encouragingly, there is enormous potential to develop ecotourism (which could create growth and jobs while preserving natural assets such as forests, water and wildlife), as Cambodia is currently lagging behind neighbouring countries in developing this sector.

## 7. Education

### 7.1. *Making Cambodia's Right to Education Work*

With regard to education as a basic right, Cambodia has enough policies and laws in place, as it has ratified several of the international conventions, covenants and treaties on human rights. Rath's analysis focused on understanding why effective implementation of the constitutional and legal provisions in relation to the right to education has been a challenge in Cambodia.<sup>18</sup> Although no administrative fees are required for a student's enrolment, physical, economic, gender and socio-cultural obstacles constrain children from attending school in many parts of the country. As a result, the number of years of schooling experienced by Cambodian youth remains low and the quality of education is poor. One of the major reasons for the inadequate supply of quality education is the low public spending on education – about 2.6 percent of GDP (compared with about 6 percent in Vietnam). Largely, the low public spending on education results in a shortage of qualified teachers: at around 50, the primary pupil-teacher ratio in Cambodia is almost twice that in many neighbouring countries. Indeed, in some parts of the country such as Siem Reap province, that ratio is even higher at around 70. In addition, teachers are not qualified enough: only about 25 percent of primary school teachers have upper-secondary level education, while about 66 percent of them

<sup>16</sup> Hak Sochany, Il Oeur, So Dane and John McAndrew, ADIC: "Food Security and Land Use Change: Case Study in Two Bunong Communes of Mondulakiri Province"

<sup>17</sup> Lonm Pichdara, CDRI: "Cambodia's Competitiveness in a Global Low Carbon Future – Threats and Opportunities: A Case Study on Tourism"

<sup>18</sup> Dr Rath Chhang, Director of Graduate Program, ACC: "An Analysis of Rights to Education in Cambodia"



have only lower-secondary education and the remaining teachers have only primary education. Lack of roads and other rural infrastructure further constrains access to education; in most rural areas primary and secondary school students have to travel about 10-11 kilometres to get to school.

### 7.2. Higher Education and the Stakeholders

As higher education institutions (HEIs) continue to grow and expand with limited resources, stakeholders become increasingly concerned about the quality of the education they offer. Sam examined the interrelationships among the five categories of stakeholders involved in Cambodia's higher education – government, external donor agencies, HEIs, industry, and local and international NGOs.<sup>19</sup> Among these stakeholders, the Ministry of Education sets the priorities, policies, regulations and, above all, the vision for the country's higher education. Within the overall framework set by the Ministry, the donors and NGOs fund higher education programmes and projects, while industry itself is one of the major users of educated youth. Employing a qualitative method (semi-structured interviews with key informants from the different institutions concerned), Sam found that interactions, collaboration and coordination among the stakeholders have remained weak. As a result, the country's higher education system has had mixed results in developing quality human capital in sufficient numbers. Although it churns out a large number of graduates, about 50 percent of them are trained in business and commerce. Very few students graduate with qualifications in more relevant subjects such as science, technology, engineering and mathematics (STEM). Consequently, the country is facing a shortage of skilled youth in the areas that its industrialisation process will soon urgently need. Sam concluded that there is a need for more networking and better collaboration among the various stakeholders so that the higher education system can fulfil its overarching objective of developing the country's human capital.

<sup>19</sup> Sam Chanphirun, PhD candidate, VU University, Holland: "Stakeholders' Involvement in Higher Education in Cambodia"

### 7.3. TVET – Medium-term Bridge Builder?

Since the country is facing skill shortages, and given that it will be some time before the higher education system is able to develop its capabilities to bridge the skills gaps, Cambodia has relied on developing technical and vocational education training (TVET) programmes to build skills over the medium term. Hong outlined the country's TVET programme, its progress over time, and the constraints it faces.<sup>20</sup> She indicated that TVET enrolments have grown over the last decade or so but that most (more than 90 percent) of these enrolments were for short-term courses and largely in agricultural science (about 65 percent). This pattern of TVET enrolment is far from meeting the demands of industrialisation, that is, the kinds of skills that industries such as electrical appliances, electronics, and automobile components and assembly will require. Among the several constraints facing TVET, high dropout rates before grade 9 (the minimum qualification for students to enrol in most TVET programmes), lack of quality assurance and accreditation for TVET courses, and inadequate integration of TVET in mainstream higher education deserve special mention. It seems clear that a major reform of the TVET system needs to be brought about to enable it to really become a medium-term bridge builder in closing the country's skills gap.



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## 8. Health

### 8.1. Health System Research

The key building blocks of Cambodia's health system are service delivery, human resources/health workforce, health information systems,

<sup>20</sup> Hong Choeun, NEA: "TVET for Industrial Transition: Key Developments, Challenges and Policies"

access to essential medicines, financing, and governance. These six building blocks are further nested in three key areas – maternal and child health/reproductive healthcare, communicable diseases, and non-communicable diseases. Health system research (HSR) in all of these areas is at an early stage in Cambodia. Encouragingly, the number of HSR projects has increased from around 50 in 2005 to more than 200 in 2012.<sup>21</sup> However, the key concern is that only about 15 percent of these projects can be strictly characterised as HSR. A major constraint for HSR is funding, most of which comes from external donors. Moreover, only about 20 percent of the 65 research papers published in peer-reviewed journals in 2012 boast a Cambodian as the first author, indicating the rather limited technical capabilities of domestic HSR. Ir suggested that Cambodian policymakers, researchers and health practitioners should give more importance to HSR. Developing a national strategy to guide future health system research is a key policy option, as is developing the capacity of the country's health system researchers.

### 8.2. Health Financing

Health financing is often at the core of a country's health system. The importance of an equitable health-financing scheme is especially crucial in developing countries. Against this backdrop, Chhim and Tong examined the impact of three types of health financing in the country – user fees, health equity funds, and community-based health insurance – on child health outcomes such as stunting, wasting and underweight.<sup>22</sup> Using data from the Cambodia Socio-Economic Surveys of 2004 and 2009, they employed several quantitative methods to assess the impact of Cambodia's health financing modalities on child health. Their preliminary findings suggest that user fees could help reduce patients' out-of-pocket expenses and healthcare providers' under-the-table charges; however, user fees are unlikely to improve child health outcomes such as stunting, wasting, or underweight. They also found that the poor are actually paying more for health services

<sup>21</sup> Dr Ir Por, NIPH: "Health System Research in Cambodia: Situation Analysis"

<sup>22</sup> Chhim Chhun and Dr Tong Kimsun, CDRI: "Impact of Health Financing Policy on Households during the Period of Post Conflict in Cambodia"

than the rich. These findings, albeit preliminary, have important implications for reforming the country's user fees system for healthcare.

### 8.3. Medical Education – An Overall Assessment

Medical education in a country covers a whole gamut of issues, ranging from the medical school curriculum to licensing and regulatory arrangements through to teaching and learning infrastructure and the quality of students and teachers. Cambodia's medical education has traversed a number of political and socioeconomic junctures. Chheng evaluated the country's current medical education system from various angles – curriculum development, teaching infrastructure, teacher quality, student recruitment, student evaluation, and medical practice licensure.<sup>23</sup> He concluded that the current system is in need of a number of reforms, as most medical teachers possess inadequate pedagogical knowledge and skills, the curriculum fails to incorporate sufficient emphasis on medical ethics and professionalism, and the system of evaluating student performance through a standardised, national-level exit examination is too narrow and simplistic. He also suggested that there is a need to rethink the system of awarding practice licences to medical graduates without further testing their professional capabilities. Chheng's overall conclusion was that the medical education system is in need of major reform and restructuring if Cambodia is to adjust well to the greater mobility of medical personnel across national borders once the AEC is launched in 2015.

### 8.4. Medical Education: Practitioner-Patient Interaction

Measuring blood pressure is a routine procedure when medical practitioners attend to patients, irrespective of the final diagnosis of the patient's health condition. Doum evaluated whether medical practitioners adhered to appropriate procedures when taking patients' blood pressure in Kanthabopha hospital.<sup>24</sup> Using the questionnaire-based survey method, he found that in about 90 percent of the 200 patient cases surveyed, medical

<sup>23</sup> Dr Chheng Kannarath, NIPH: "Cambodian Medical Education: At Another Crossroad"

<sup>24</sup> Doum Dyna, Research Assistant, IPC: "Methods of Taking Blood Pressure at Kanthabopha 4 Hospital in September 2012"

practitioners ensured that the patient was resting in the normal position before taking their blood pressure. Similarly, the accuracy of the blood pressure measurement was very high – close to 100 percent. However, only in about 20 percent of the cases did medical practitioners explain the rationale and modus operandi of measuring blood pressure to the patient. Moreover, although the percentage of medical practitioners complying with hand hygiene guidelines before measuring blood pressure was relatively high at about 63 percent, the comparable figure after doing so was much lower at 37 percent. Given these results, Doum suggests that medical practitioners should be better trained to explain the procedures to patients/family members, and on the need to consistently perform hand hygiene before and after routine patient care.

#### 8.5. Medical Education: Primary Midwifery Education Programme

Cambodia's Primary Midwifery Education Programme (PMEP) aims to train students in essential midwifery skills and equip them with appropriate knowledge, practical skills and attitudes. The midwives that graduate from the programmes are expected to undertake the key roles and responsibilities of a skilled birth attendant. Based on a review of the PMEP curriculum, Chap found that the training curriculum was not appropriate; in particular, it was not consistent with the PMEP goals of "objective consistency" and "objective adequacy".<sup>25</sup> These limitations of the medical education under the PMEP should be addressed so that midwives can ensure safer births and the best outcomes for mothers and newborns. That, in turn, should help the country to strengthen its reproductive healthcare system.

### 9. Conclusions

The key message that emerges from the presentations and discussions at the Symposium is that Cambodia has done well in the last couple of decades in various dimensions of development – growth, agricultural transformation, poverty reduction, natural resource management,

<sup>25</sup> Prof Chap Seak Chhay, NIPH: "Validity and Reliability Study of Methods and Instruments to Assess the Achievement of Primary Midwifery Students for Graduation"

infrastructure development, primary education, basic healthcare, and regional and global integration. Nonetheless, the remaining development agenda is also quite substantial and challenging if the country is to successfully traverse the middle-income phase of its development journey.

The key challenge is one of sustaining strong and inclusive growth. True, the poverty rate today is less than 20 percent. Yet a significant proportion of those who have moved out of poverty are subsisting just above the poverty line. As a result, the near-poor are highly vulnerable to even small fluctuations in income which could push them back into poverty. This underscores the need for maintaining strong growth in the years to come.

The country's agricultural transformation is still incomplete. A successful transformation will entail better land use, provision of quality inputs such as seeds and fertiliser, effective agricultural extension services, and faster mechanisation. How well the country completes its agricultural transformation is highly intertwined with the success in industrial diversification and the overall modernisation of the non-agricultural sectors. The latter will determine the pace at which labour will move from low productivity agricultural and rural occupations to more productive urban jobs in the industrial and service sectors.

The pace of industrial diversification and economic modernisation will depend on how well the country can provide cost-effective infrastructure, a business-friendly investment climate, quality education and healthcare, and a socioeconomic environment conducive to gender equality and women's empowerment. In order to make the process of rapid growth and industrialisation sustainable over the coming decades, the country will have to pay increasing attention to managing macro-financial risks, nurturing natural resources, adapting to climate change, protecting the environment, and curbing its carbon footprint.

None of these will be possible without greater resource mobilisation and more efficient resource use by the government. That then underscores the need for modernising public sector institutions and reforming governance more generally,

especially since these development challenges will have to be addressed amid changing regional and global dynamics.

This is an opportune time for Cambodia’s political leaders and policymakers to bring about the necessary strategic and policy changes, with a new government in place. The result of the July 2013 elections is a wake-up call for the ruling party that a business-as-usual approach to the various development challenges facing the country is simply not enough. People, especially youth, have spoken and the verdict is clear –the government needs to bring about the long-awaited changes in development policy and governance.

The above list of strategic challenges and policy options provides a rich seam of insights and useful starting points for development researchers to explore in the future. The Cambodia Development Research Forum, being the premier development network of institutions and researchers in the country, has a major role in



*The DRF is a partnership of leading academic, research, and policy institutions in Cambodia. Phnom Penh, October 2013.*

prioritising development research in the coming years. The 2013 Annual Symposium has made a good beginning in gathering information and identifying the development research priorities for Cambodia on the eve of its graduation to a middle-income country. The Forum’s future work should be built on these research priorities and the accompanying policy agenda.

### About DRF

The Development Research Forum (DRF) of Cambodia was established following the All-Partners Forum organised by the International Development Research Centre (IDRC) in September 2007.

The DRF vision is of a high capacity, professional and vibrant Cambodian development research community. Its goal is to support and strengthen the capacity of the Cambodian development research community.

The DRF partnership involves the Cambodia Development Resource Institute (CDRI), Cambodian Economic Association (CEA), Learning Institute (LI), National Institute of Public Health (NIPH), Royal University of Agriculture (RUA), Royal University of Phnom Penh (RUPP), Supreme National Economic Council (SNEC) and the International Development Research Centre (IDRC).

In DRF Phase II 2012-15, with financial support from IDRC, the partners intend to work together to build research culture and capacity and to share research knowledge through workshops, policy roundtables and symposiums as well as training and online discussion ([www.drfcambodia.net](http://www.drfcambodia.net)) on six research themes: growth and inclusiveness, governance of natural resources, social policy – education, social policy – health, agricultural development, and Cambodia and its region.

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