

# WORRYING NUTRITIONAL RESULTS FROM CDHS 2010 IN THE CONTEXT OF HIGH FOOD PRICES

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An ‘work-in progress’ discussion note for the UN Country Team and development partners in Cambodia<sup>1</sup>

## Abstract

*The recent 2010 CDHS findings show disappointing trends in the nutritional status of children. Evidence from three national sample surveys in 2008, 2009 and 2010 show that progress on underweight and stunting has stagnated, while wasting has increased, exceeding the 10% threshold, particularly among the urban poor. A number of trends since the recent economic-financial-fuel-food crises appear to have worsened the position of the poorest and most vulnerable people. Since the last quarter of 2009, rice prices in real terms<sup>2</sup> in Cambodia have been 30-45% higher than pre-crisis levels of January 2007, while real wages appear to have deteriorated between 2007 and 2009. High food prices and low wages threaten the development of almost an entire generation of children, because the period from conception until 24 months of age irreversibly shapes people’s health and intellectual ability. High food prices reduce diversity and nutritional quality of the diet and for many also reduce food quantity. Poor households, often landless and land-poor households in rural areas who depend heavily on unskilled wages, are hit hardest because they already spend over 80% of expenditures on food, and little on health care, education, transport, or cooking fuel, and cannot afford to pay more.*

*This calls for enhanced and sustained national efforts to supplement the coping resources of the most vulnerable. A range of actions need to be undertaken to ensure that the food security and nutritional gains achieved by Cambodia from 2000 to 2005 are not irreversibly lost. Enhanced investments in nutrition are among such key measures as these are some of the most cost effective interventions because of very high benefit to cost ratios, for individuals and for sustainable growth of countries, because they protect health, prevent disability, boost economic productivity, and save lives. Furthermore, targeted social safety nets can strengthen the response options for poor and vulnerable households, by protecting assets and increasing income. Immediate term measures to address food and nutritional insecurity could include income transfer, distribution of nutrition supplements and provision of employment through expanded public works programs. Medium term measures include diversification of agricultural production and improving food and nutrition security through enhanced access to land and other productive resources among the vulnerable and poor communities in the rural and urban areas. These immediate, short-term and medium term measures can be implemented within the government’s newly endorsed National Social Protection Strategy 2011-2015 (NSPS) framework.*

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<sup>1</sup> Draft prepared by Usha Mishra, Chief of PAC, with inputs from a small core group of WFP, FAO and UNICEF that came together rather informally to take stock in the wake of the CDHS 2010 results. The note benefited from inputs from the WB’s social protection and poverty teams.

<sup>2</sup> Non-food CPI was used to deflate nominal prices. : “Food prices have increased 20-25% more than non-food prices since January 2007.” ( WFP 2011)

## Introduction

The results of the CDHS 2010 underscored fears that while food prices have stabilized since the 2008 food price crisis, the food and nutritional security of a sizeable section of the population, especially the poorest and the most vulnerable has been severely compromised resulting in higher levels of under-nutrition evident among children under five.

The emphasis on the stabilization of food prices since 2008 has tended to take attention away from the fact that inflation-adjusted food price levels in Cambodia are still 20-25% higher than price levels in January 2007 and the inflation-adjusted price of rice, the main staple, has been 30-45% higher than January 2007. Additionally, preliminary analysis by the World Bank Cambodia shows that wages at the constant dollar/riel decreased between 2007 and 2009 and WFP reports that unskilled wage rates have remained almost constant between 2009 and 2011. Thus, wage increases have not kept at pace with food price increases. In line with global evidence<sup>3</sup>, this implies deterioration in food consumption and hence in food and nutritional security for the population at large and especially the most vulnerable, including in urban areas. Globally ESCAP estimates show that rising food and oil prices could lead to 42 million additional people in poverty, joining the 19 million already affected in 2010. In a worst-case scenario with food price inflation doubling in 2011 and average oil prices at US\$130 per barrel, the achievement of the Millennium Development Goal (MDG) for poverty could be postponed by up to half a decade in some developing countries in the region.

A review of the literature on the impact of the 2008 food price increases suggests that high food prices are likely to have had a significant impact on the incidence of poverty (Ivanic and Martin, 2008) and undernourishment (Tiwari and Zaman, 2010) throughout the developing world<sup>4</sup>. The likely impact of sustained high prices and a relative deterioration in the purchasing power of the poorest is evident in the latest CDHS results. As captured by the preliminary CDHS 2010, the percentage of children under five who are wasted has increased from 8.4% to 10.9% since 2005. Given that the Integrated Food Security Phase Classification describes 10%-15% wasting<sup>5</sup> as an 'Acute Food and Livelihood Crisis', this warrants recognition of the urgent nature of the situation. Other indicators of the food security situation in the CDHS 2010 show similar trends. For example, the level of stunting is stagnant at 40%, a decrease of about 2% from 2005 levels.

Despite the economic gains of the last decade and unprecedented gains in human development, Cambodia continues to be vulnerable and classified as an LDC. Though development gains have pulled millions out of poverty challenges remain in reaching the poorest of the poor. The growth had occurred with one of acutest aggravation of inequity in the region<sup>6</sup>. Of late, the government has recognized the challenges stemming from an iniquitous growth and among many measures has adopted a comprehensive, ambitious national social protection strategy aimed at providing some basic protection to the poor and vulnerable in access to income, health, education and security. As of today, in the context of the rather low social protection environment<sup>7</sup> and where, an estimated 30% people (2007 estimates) were living below the poverty line and 18 % below the food poverty line<sup>8</sup>, high food prices continue to pose a continued livelihood and nutritional challenge, posing real risks to attainment of Cambodia Millennium Development Goals (CDMGs), especially CMDG1.

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<sup>3</sup> Hassan Zaman Paper from Indonesia WB

<sup>4</sup> ibid

<sup>5</sup> Additional indicators are required to definitively classify; a full description is available at <http://www.ipcinfo.org/>

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<sup>7</sup> Cambodia ranks 'a very low' 0.18<sup>7</sup> on the Social Protection Index, devised by the ADB

<sup>8</sup> Ranking on the Global Hunger Index (IFPRI) is 21.2 (2009), 20.9 (2010)

In order to protect the gains made during the past decade, Cambodia should ensure speedy and effective implementation of priorities set out in the recently endorsed policy framework of National Social Protection Strategy and expand and strengthen its measure to enhance food and nutrition security of the poorest and the most vulnerable including those in the urban areas. Poor and vulnerable communities in the urban areas have typically received less attention from the national protection measures and in the light of the recent CDHS findings which show a higher wasting rates in the urban areas, compared to the rural, it is time to recognize the growing food insecurity and vulnerability in the urban areas. Nevertheless, 90% of the poor, and a large majority of malnourished children, reside in rural areas.

## The Context

### Strong recovery since 2008<sup>9</sup>

- One of the hardest hit economies in 2009, Cambodia benefited from a rapid recovery in tourism, a modest rebound in garment exports and higher agricultural output in 2010. Cambodia is expected to grow faster at 6.2% as recovery gains hold.
- This recovery however comes with some renewed challenges. Inflation has picked up to 4.1% in 2010 and is expected to accelerate to 6% in 2011.
- In a highly dollarized economy as Cambodia, a weaker dollar could mean a loss of purchasing power and higher imported inflation from neighboring countries whose currencies have strengthened against the dollar.
- While unemployment has fallen to pre-2008 crisis levels in many countries in South-East Asia, the formal sector has seen less improvement, as many of the workers who had been laid off were absorbed by the informal sector during the crisis.
- The informal sector, however, suffers from lower productivity, lower wages, poorer working conditions, lower employment protection and minimum levels of social protection. This has serious implications not only for poverty but also for future growth.

### Trends in Food Prices-looming to sustained crisis

Global food price levels have seen a rapid rise since mid-2010 and are at an all-time high. Although the FAO Food Price Index<sup>10</sup> decreased by 2.9 percent in March 2011 from its peak in February 2011, global food prices were still 37 percent above March 2010 and even above levels during the peak of the 2008 food price crisis (Figure 1).

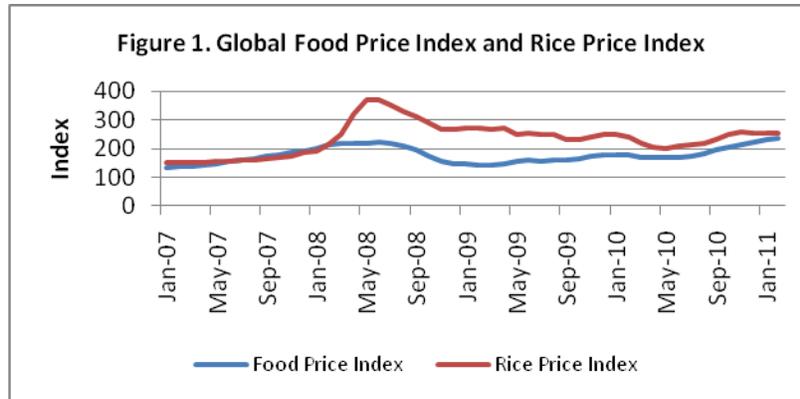
International rice prices measured by the FAO All Rice Price Index<sup>11</sup> have also increased rapidly from May to November of 2010 but have stabilized since. Although international rice price levels are not nearly as high as its peak during the food price crisis of 2008, they are still significantly higher than pre-2008 crisis levels: in March 2011, international rice prices were 64.7% higher than March 2007 (Figure 1).

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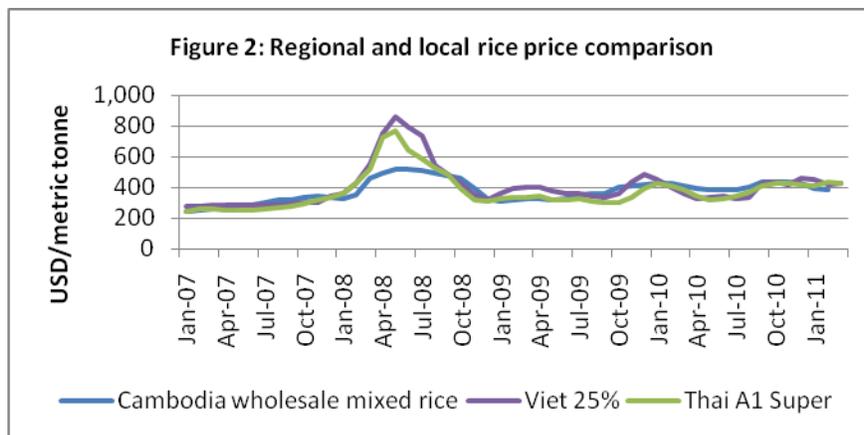
<sup>9</sup> ESCAP March 2011

<sup>10</sup> The FAO Food Price Index is a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of 5 commodity group price indices (i.e. meat, dairy, cereals, oils/fats, and sugar) weighted with the average export shares of each of the groups for 2002-2004. In total 55 commodity quotations are included in the overall index.

<sup>11</sup> Based on 16 rice export quotations.



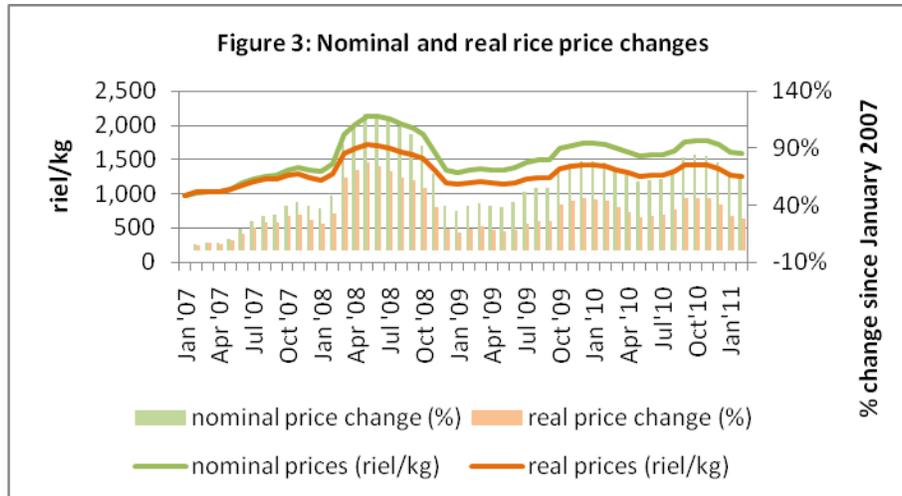
Another hike in international rice prices – potentially driven by substitution away from other cereals that have seen a greater price hike to rice coupled with a supply shock or hike in oil prices – would have a direct impact on domestic rice prices as evidenced by the rapid transmission from international and regional rice prices to domestic prices during the food price crisis in 2008 (Figure 2). There is a possibility that consumers in some countries, particularly in Africa and South Asia, would switch to eat rice given higher prices in wheat and maize. If this holds, rice price is likely to increase more sharply than the current the current levels. There are also concerns over spiral effects to rice from the spike in crude oil prices due to escalation of unrests and violence in the Arab world. In January, average price of regular gasoline was at Riel 4,700/litre but as of February 28, 2011 the price increased to Riel 4,800/liter (up by 2%) and more recently rose to Riel 4,900/litre<sup>12</sup>. This calls for continued national monitoring and vigilance



Source: Ministry of Agriculture, Forestry and Fisheries; FAO

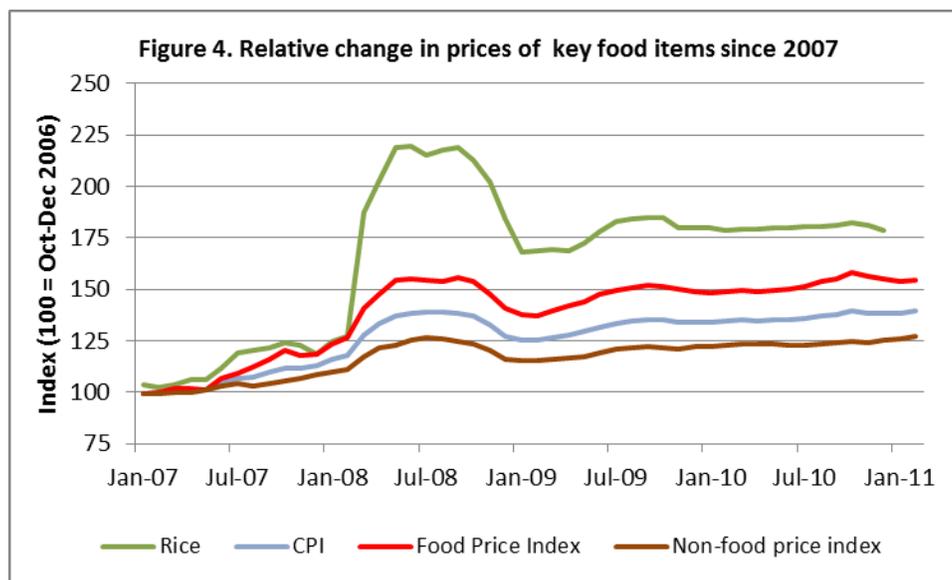
Since the food price crisis in 2008, wholesale rice prices seem to have stabilized, following expected seasonal fluctuations since the second half of 2009. However, Figure 3 shows that though rice prices are significantly lower than the peak during the 2008 food price crisis, prices are still significantly higher than pre-crisis levels. Since October 2009, nominal rice prices have been 65-80% higher than January 2007, and real rice prices (deflating for non-food inflation) have been 30-45% higher than January 2007 prices. This trend is in line with international and regional rice price patterns, although to a lesser degree.

<sup>12</sup> Global Food Price Volatility and Implications for Cambodia, WB, March 2011



Source: Ministry of Agriculture, Forestry and Fisheries; National Institute of Statistics

Similar patterns can be observed for other major food commodities<sup>13</sup>. In addition, food prices have increased more rapidly than non-food prices. According to the consumer price index tables published by the National Institute of Statistics, in February 2011, non-food prices were 27.8% higher than in February 2007, whereas food and rice prices were 54.4% and 74.3% higher, respectively, than in February 2007 (Figure 4).



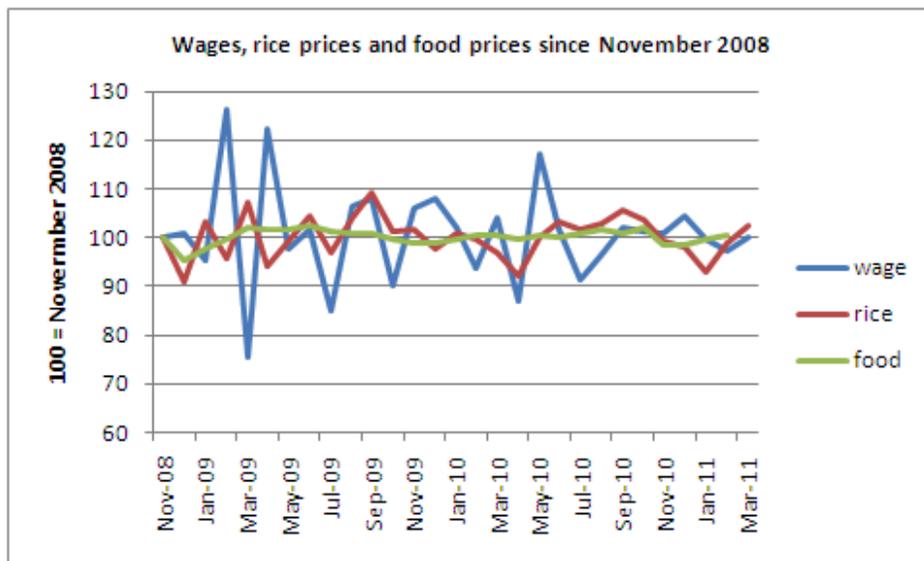
<sup>13</sup> In February 2011, meat prices were 47.0% higher, fish/seafood prices were 51.5% higher, fruit prices were 54.5% higher, vegetable prices were 54.5% higher, and oil/fats prices were 42.0% higher than in February 2007.

## Trends in wages

Wage increases have not kept pace with the increases in food prices. While the prices had gone up by over about 50% by the end of 2008<sup>14</sup>, wages had in fact decreased in constant Rial by 1.3% for Cambodia. The decrease in urban areas of 11.6% was sharper than that of 2.6% of the rural Cambodia.

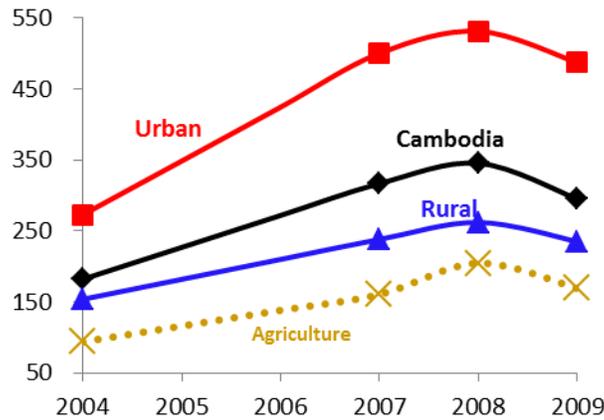
As per WFP estimates, the daily wage of unskilled labour were stable between 2009 and 2011 (figure 5). Hourly wages rates in Cambodia have been stable (or could have even decreased) from 2007 to 2011<sup>15</sup> (figure 6). Since food prices, adjusted for inflation are still at an average 20-25% higher than pre-2008 crisis levels, as noted above, this points to a more constrained access to the food and other welfare measures, especially for the landless and land-poor households in rural areas and poor urban households that depend on unskilled wage labour as their primary source of income. More research especially involving the various CSES surveys is required to establish this further.

**Figure 5: Unskilled daily wage and rice data from WFP, food data from NIS**



<sup>15</sup> WB policy note

**Figure 6 Hourly wages in Riel 2000 in Cambodia (WB)**



- Garment sector real wage rose by 15% in 2010, primarily resulted from the increase of industry minimum wage and lower inflation in 2010. The industry average nominal wage is US\$91 per month in 2010<sup>16</sup>.
- Real wage of garment workers actually hasn't improved much relative to the last decade strong economic growth with per capita income expanded by 6.7% per annum. This translates very uneven distributional impacts of the growth.
- Job markets are recovering despite it remains lower the pre-crisis level. Real daily income of vulnerable workers has also been improving, mainly unskilled workers, and tricycle and motor-taxi drivers. Signaling prospect of poverty reduction gains (CDRI Nov. 2010 Survey)

### High Vulnerability of Cambodia

Cambodia's population is highly vulnerable. The high degree of vulnerability could be observed on the elasticity of poverty to consumption (percentage change on poverty due to one percentage change in consumption.) For over half of the population in Cambodia poverty elasticity is above 2.0, the average for developing countries in the region<sup>17</sup>. Therefore, for a large share of households, small changes on their wellbeing can move them in or out of poverty. Another dimension of high vulnerability is reflected by the high proportion of transient poor. The 2006 Poverty Assessment calculated that Cambodia has a sizeable proportion of households (7 percent in 2004) living within a 10 percent band above the poverty line. A study by the Cambodia Development Research Institute to track movement of living standards of 1,000 households in 9 rural villages showed that 40 – 45% of sample households were falling in and out of poverty from 2001 to 2008<sup>18</sup>.

The main sources of vulnerability in Cambodia that can push these households into poverty and worsen the living conditions of those already poor can be grouped into five categories: situations of emergency and crisis (i.e. economic crises and natural disasters); human development constraints; seasonal

<sup>16</sup> Cambodia: Recent Economic Developments World Bank Cambodia country office, Seventh edition, February, WB, 2011

<sup>17</sup> *ibid*

<sup>18</sup> WB Cambodia

unemployment and income insecurity; health shocks; and other specific vulnerabilities affecting particular groups like PLWHA.<sup>19</sup>

Seasonal unemployment and income insecurity are a source of vulnerability for the poor and particularly for the about 350,000 food-insecure households with poor and borderline food consumption, equalling about 1.7 million individuals. According to the 2009 Global Hunger Index, Cambodia remains within “alarming” levels of food and nutrition insecurity. Most food-insecure households live in rural areas, are landless (estimated at 15 percent of the rural population) or land poor (47 percent of the rural population) and have more children and more elderly to be nourished. The period from August to November, representing the “hunger (?)/food security gap,” remains particularly severe for poor households, as demand for agricultural labour is low and households’ rice stocks start running out. Poor rural households are predominantly dependent on their own limited food production and irregular, low-paid casual wage labour. The NSPS has identified the following as vulnerable:

- People living below the national poverty line; and
- People who cannot cope with shocks and/or have a high level of exposure to shocks (of these, people living under or near the poverty line tend to be most vulnerable); as well as
- infants and children; girls and women of reproductive age; food-insecure households; ethnic minorities; the elderly; people living with chronic illnesses; people living with HIV; and people living with disability (vulnerable groups in the NSPS).

These resource poor, wage dependent vulnerable groups are most likely to be hardest hit by the sustained high prices.

### Poverty levels and under-nutrition levels: the national, provincial and the sub-provincial picture

The geographic distribution of food and nutrition insecurity varies among provinces and ecological zones and more significantly within the provinces. Based on secondary analysis of primarily CSES 2004 and CDHS 2005 data<sup>20</sup>, the 2007 WFP/FAO Integrated Food Security Phase Classification (IPC) categorized 22 of Cambodia’s 24 provinces as chronically food insecure. This underscored the rather pervasive nature of the challenge. An updated analysis in 2011 may change this picture to certain extent, including profiling urban food and nutrition security more prominently.

Amidst this landscape, there are pockets of more extreme food and nutrition insecurity. According to the 2008 WFP Cambodia Food Security and Vulnerability Analysis (CFSVA), Tonle Sap and Plateau ecological zones have the highest prevalence of food insecurity, as measured by the food consumption score, an indicator of household caloric consumption and dietary diversity. This is supported by the analysis coming out from the commune-level predictive poverty rate derived from the 2009 Commune Database (CDB).

Evidence from the CDHS 2010 further supports that geographic distribution of chronic malnutrition is concentrated in the Northeast and around the Tonle Sap Lake, though this is now also true of some provinces in the Coastal ecological zone. In 16 provinces the prevalence of stunting in children under five is more than 40 percent, which is considered “critical” on the WHO classification of the severity of chronic malnutrition. **The number of provinces where the prevalence of stunting is above 40% has increased since the CDHS 2005 and CAS 2008.** Similarly, the number of provinces where the prevalence of wasting is above 10% has increased since the CDHS 2005 and CAS 2008.

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<sup>19</sup> NSPS background note, WB

<sup>20</sup> Only Phnom Penh and Battambang were classified as generally food secure. Note: In 2008 the terminology “chronically food-insecure” was removed from the IPC and replaced by “moderately/borderline food insecure”.



opportunity of Cambodia assuming the Chair of the ASEAN. Building upon the recommendations of ESCAP 2011 update, the following table gives a summated overview of the strategic priorities and choices at the various levels. The rest of the paper will then proceed to focus on the last and the most immediate of the levels/realms i.e. national.

<p><b>Global responses:</b> Cambodia should call upon the G20 and other international bodies to negotiate a benchmark “fair” price of oil with the Organization of Petroleum Exporting Countries (OPEC) and seek agreement to restrict price movements to a band around it. It should also advocate for tighter global control of the commodity speculation in line with the UN recommendations<sup>25</sup></p>
<p><b>Inter-regional responses:</b> work to strengthen trade other regions like South Asia and ASEAN; greater trade; government efforts to strengthen trade ties with neighbouring Asian countries need to be accelerated as a narrow export base with heavy reliance on the markets of developed countries in the west poses significant risks.</p>
<p><b>Regional/ASEAN responses:</b> Strengthen the free trade to get higher efficiency in production and consumption</p>
<p><b>National:</b> Macroeconomic-Consider national policies to regulate the capital inflow and mitigate the risks of the sudden capital out flow and exits as witnessed in the past( this is now an IMF accepted/recommended policy tool within the nation's repertoire) Consider some price regulation measures like bench mark/guideline pricing aimed at price stability and minimizing of speculation</p>

Given the deteriorating national nutritional status especially of children, in the context of the fact of the sustained high food prices, and with the focus on the poorest and the most vulnerable, the UN urges the following:

1. **Heightened awareness**-The UN proposes that government and developments partners take note of the increasing vulnerability of the poor and vulnerable in the immediate and the medium term, that they recognize the risks of further deterioration of these vulnerabilities given the warnings of the looming crisis of the global trends on price rises. Here the guidance note for of the UN Common Advocacy Point on Food Security and Nutrition adopted by the UNCT in March 2011<sup>26</sup> could be a useful reference.
2. **Assessing preparedness**-The Government assesses its social protection measures in place and gets ready to upscale its response in both rural and urban areas.

<sup>25</sup> <http://www.indepthnews.net/news/news.php?key1=2010-09-24%2002:10:57&key2=1>

<sup>26</sup> XXX

3. **National Consultation**-The UN urges upon the highest offices of the Prime Minister, the CARD and the newly established SPCU to convene a larger national consultation in the coming weeks to address these challenges of worsening nutritional status which can potentially compromise the ability of Cambodia to achieve CMDGs 1, 4 and 5.

### Suggested Priority actions (TO BE REVISITED following the UNCT discussions)

Priority actions need to be initiated and existing measures need to be expanded in the immediate and the medium term.

These measures can be situated within the newly approved National Social Protection Strategy (NSPS). Within the overall NSPS Goal of '*Poor and vulnerable Cambodians are increasingly protected against chronic poverty and hunger, shocks, destitution and social exclusion and benefit from investments in their human capital*' the National Social protection Strategy, prioritizes the following actions:

‘...new programmes-cash transfer, public works, ongoing programmes that need to be expanded such as Health Equity Funds, school feeding and further programme identification.....’<sup>27</sup>

The UN urges the RCG and Development Partners to visit this commitment and consider the following:

1. **To increase income by providing targeted** cash or in kind transfers to poor and vulnerable households. Government emergency rice reserves, managed by Green Trade and currently at 8,000 metric tons, are a potential source that is immediately available. Well-targeted in kind transfers could preclude any negative externalities like the dampening of the prices and producer disincentives . Scaling up of the self-targeting, pro-poor public works programmes<sup>28</sup>, as planned within the NSPS, should be undertaken.
2. **To protect assets, particularly among the nutritionally vulnerable, expand the distribution of the nutritional supplements among pregnant and lactating women (PWL) and children under 2.** According to the WHO, under-nutrition accounts for 11% of the total global burden of disease. The importance of ensuring adequate nutrition, and especially combating micronutrient deficiencies, which has very high benefit-cost ratios, was also emphasized by the Copenhagen Consensus (4)<sup>29</sup>. Available literature review underscores the relevance for express nutrition interventions in order to achieve nutritional gains among the vulnerable<sup>30</sup>. Evidence based interventions that are not yet scaled up include:
  - Identification and management of severe acute malnutrition for children 0-5 years
  - In-home fortification to prevent and control multiple micronutrient deficiencies for children 6-24 months

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<sup>27</sup> NSPS ( page no XX)

<sup>28</sup> Public investment in roads and irrigation, likewise, generates strong returns (Fan et al, 2004).

<sup>29</sup> The expert committee, which consisted of 8 economists, 5 of whom were Nobel laureates, declared in May 2008 that the world’s best investment from among 30 investments in any field is to provide vitamins and minerals for undernourished children.

<sup>30</sup> In situations where the level of total caloric availability is already low, if the relative price of the staple increases during a crisis, households receiving a cash transfer may choose to spend more of their additional income on that same staple as long as it continues to be the cheapest source of calories and energy (Behrman, 1988; Behrman and Deolalikar, 1989)5. Thus cash injections may not result into nutritional gains, underscoring the relevance of a nutritional supplement intervention (Hassan 2010) for PWL and children under two.

- Behavior change communication to improve feeding practices for children 6-24 months.
- Behaviour change communication to improve maternal nutrition.

**3. Enhance health and WASH access** as nutrition is largely an inter-sector, complex issue with close links to the health and water and sanitation sectors/facilities. Measures to enhance the coverage of the underserved, like the urban slum dwellers, remote, mobile and ethnic communities should be strengthened. This Access to health can be supported within a progressive expansion of coverage of Health Equity funds as envisaged within the NSPS.

*Medium Term:*

1. **Expand the access to productive resources like land and farming inputs** among the vulnerable households in the rural and urban areas.
2. **Maintain and build upon its investments in the supply side:** Globally, investments in agriculture have shown high returns to the economy and high poverty reducing impact<sup>31</sup>. The RCG is urged to continue to maintain its investment in improving agriculture through extension of the storage facilities, infrastructure, improving soil and water management and R&D.
3. **Work with the private sector to expand staple food fortification** activities and make processed food more nutritious.
4. **Strengthen efforts at market development** including enhancing functionality of rice market, market integration to reduce variability in supply and prices and minimizing post-harvest milling and storage
5. **Strengthen its monitoring and analysis** capacity to be able to undertake timely measures in a more targeted manner by building on the work of the multi-sectoral Food Security and Nutrition Data Analysis Team recently established under CARD.

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<sup>31</sup> A recent summary of over 600 studies suggests that returns to agricultural research average 50% in Africa, 78% in Asia and 54% in Latin America (Allston et al, 2005)